

I. PURPOSE OF THE SAFETY ELEMENT

The Safety Element describes natural and human activity-related hazards that exist in Saratoga and the measures to address them. Some naturally occurring hazards may be unavoidable, but the potential impact on Saratoga can be reduced through advance planning and preparation. Thus, the Safety Element addresses geologic, seismic, flood, and fire hazards, as well as hazards created by human activity such as hazardous materials and waste and incidents that call for emergency protection, at a policy level within the City. Anticipating emergencies will occur even when precautions are taken against hazards, the Safety Element describes the City's efforts to prepare for and respond to emergencies; however, the Safety Element does not take the place of the City's Emergency Operations Plan. For additional information regarding the Emergency Operations Plan, refer to Section II.E - Emergency Preparedness and Disaster Planning.

Furthermore, California Government Code Section 65302(g)(1) requires that a General Plan include:

“ . . . A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires”

II. HAZARD IDENTIFICATION

The identification of hazards that affect the City is the initial step in the safety planning process. Hazard identification is the most important stage in this process since inaccurate hazard identification and the formulation of inadequate safety land use policies could result in unnecessary loss of life, injury and property damage.

The types of natural hazards that have affected Saratoga in the past and those that may affect it in the future can be identified with a high degree of accuracy. Geologic, flood and fire hazards have all caused considerable damage within Bay Area communities in the past. Although the

extent of damage resulting from future natural hazards is unknown, it is likely that the consequences will be similar to those produced in the past. Accurate hazard identification utilizes historical information to predict future hazards and potential risks to current and proposed land uses and activities.

A. REGIONAL SOILS AND LAND INSTABILITY HAZARDS

The physical and geologic characteristics of Saratoga have the potential to produce geologic related problems for land development. Land development in areas of geologic instability can expose life and property to hazards caused by seismic and non-seismic conditions. When structures or roads are built on geologically unstable land, such as landslide areas or unstable slopes and soils, there is a definitive risk to the community.

Geologic hazards are unavoidable in California. However, some geologic conditions represent greater hazards than others. Faulting and unstable bedrock present great risks, while surface instabilities can often be engineered to make construction safe. When unstable soil combines with steep slopes, development conditions can be subject to landslide hazards. Recognizing and delineating hazards that could result in injuries, property damage and economic or social dislocations is an important function of the City planning process to protect the public health, safety and welfare of the community.

Saratoga is located within the Santa Clara Valley, situated at the southern end of San Francisco Bay. The valley is characterized as a depression that has been subsiding and filling with sediment during the Quaternary Period.¹ Deposition of alluvial² and fluvial³ sediments during this time has been influenced by both subsidence and the climatic and base level changes associated with past glaciations and sea level fluctuations.⁴ Research conducted within the San Francisco Bay indicates that the valley floor within the San Jose region is blanketed by young

¹ Quaternary Period is the time period from 2.6 million years ago to present day.

² Unconsolidated sediment deposited by a stream.

³ Produced by the action of a stream or river.

⁴ Liquefaction Hazards Maps for Three Earthquake Scenarios for the Communities of San Jose, Campbell, Cupertino, Los Altos, Los Gatos, Milpitas, Mountain View, Palo Alto, Santa Clara, Saratoga, and Sunnyvale, Northern Santa Clara County, California

alluvial deposits since the last ice age. Older alluvial deposits⁵ underlie these sediments and crop out along the margins of the valley.⁶

The Saratoga area is primarily underlain by Pleistocene alluvial deposits with some exposed bedrock within the hillside areas. The existing soils and bedrock pose a potential landslide or liquefaction hazard for future development. Refer to Exhibit 1, Geologic Map for a depiction of the generalized geology of the City.

i. General Geology and Physical Characteristics

Topography

The topography of Saratoga includes the low-lying relatively flat valley floor and the northwestern foothills. Outside the City limits, but within Saratoga's Sphere of Influence, are the Castle Rock portions of the Santa Cruz Mountains. These mountains are very rugged, comprised of steep canyons and sharp to rounded ridge tops.

Vegetation

The mountain areas located within Saratoga's Sphere of Influence are heavily vegetated. Hardwood trees of oak and madrone are abundant in this area, as well as redwood and Douglas fir. The canyon floors near streams are covered with sycamore, elder and maple trees. Much of the area is densely covered with chaparral, with only a few areas covered with grass.

Geology

A fault zone is composed of a complex system of fault traces and fractured rock. The San Andreas Fault Zone is a dominant geologic feature within the State of California. This fault zone is the boundary between the Pacific and North American Tectonic Plates, which has played a crucial role in California's geologic history. The southwestern most corner of the Saratoga Sphere of Influence is bisected by a northwest-southeast trending segment of the San Andreas Fault zone. The location of this fault zone along the eastern side of the Santa Cruz Mountains has played a major role in the geologic and topographic characteristics of the area by separating two different rock assemblages and their associated erosional characteristics.

⁵ Deposits placed during the Pleistocene era (1.8 million years ago to 11,000 years ago)

⁶ Liquefaction Hazards Maps for Three Earthquake Scenarios for the Communities of San Jose, Campbell, Cupertino, Los Altos, Los Gatos, Milpitas, Mountain View, Palo Alto, Santa Clara, Saratoga, and Sunnyvale, Northern Santa Clara County, California

The rock formations to the east of the San Andreas Fault are composed of sandstone, shale, volcanic rocks, with minor amounts of diabase and gabbro. The mountain area is separated from the flat area within the City limits by the Santa Clara Formation composed of unconsolidated to semi-consolidated gravel, sand and clay.

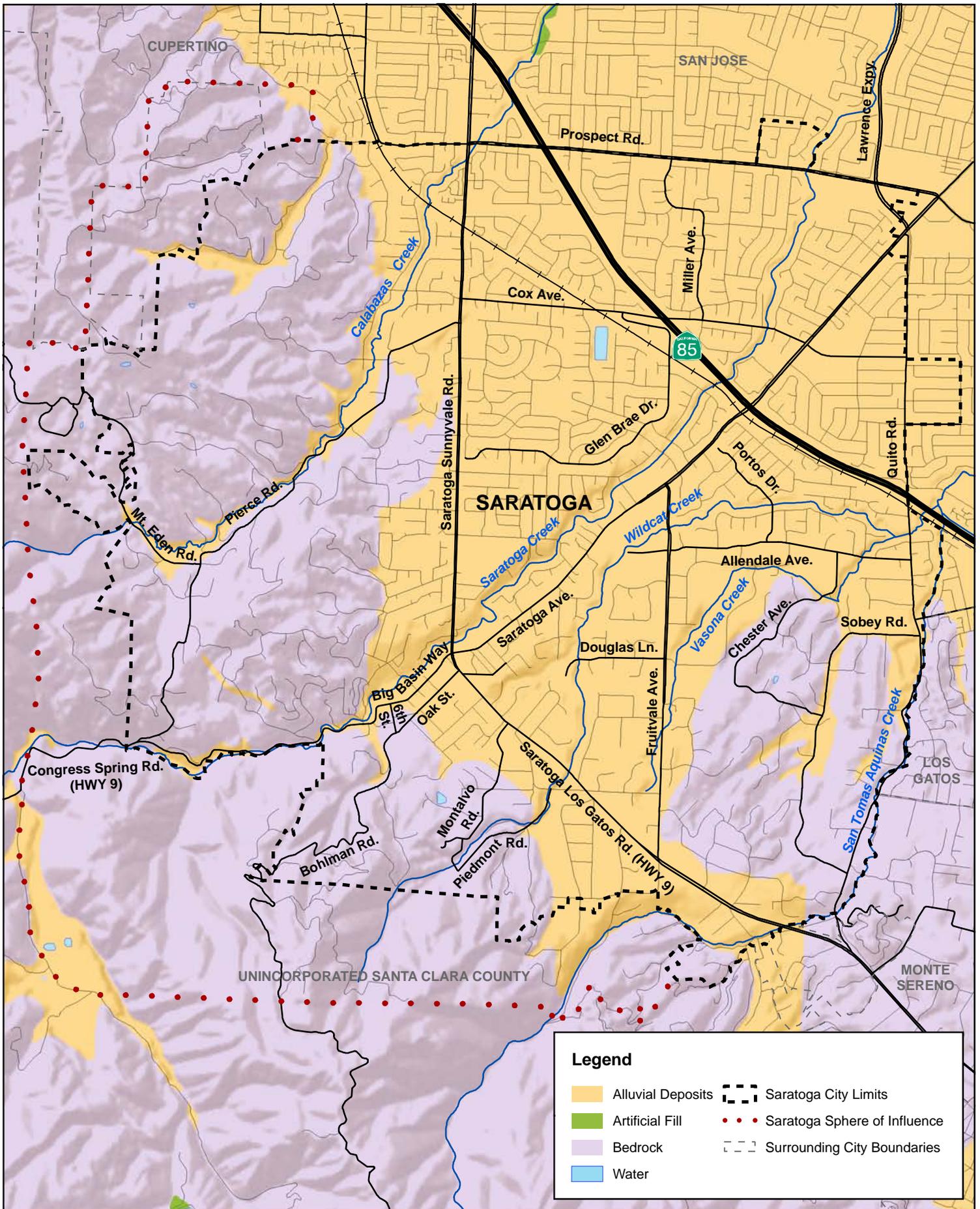
The valley floor of Saratoga is comprised of alluvial deposits (varying in age) from the creeks and streams flowing from the mountainous area. The alluvium is composed of unconsolidated particles consisting of clay, silt, sand and gravel, which are classified as agricultural soils by the United States Natural Resources Conservation Service.

ii. Landslide and Slope Instability

Most landslides occur naturally, however some damaging landslides can result from careless or poorly planned construction. When construction is allowed in areas where landslides exist or where landslide susceptibility is high, the potential for substantial property loss and human endangerment increases. The potential public costs for the repair of roads and utilities or disaster relief make it imperative that the City restrict development in geologically hazardous areas.

Most sloping land has some potential for landsliding. Slope stability is affected by several interrelated factors, such as steepness of slope, weak unconsolidated soil units or formations with a high clay content, water saturation, vegetation removal and seismic activity. Usually, a combination of several factors will bring the hillside to the verge of failure and a single factor, such as heavy rainfall or an earthquake, will be the catalyst responsible for initiating slope failure. The development of sites where these conditions exist may also trigger landslide activity.

Landslides and slope instability are the major non-seismic geologic hazards in Saratoga. This is due to the unstable nature of the geologic materials and the steep topography in areas of the City. Although most of the hillside areas in the City experience these hazards to some degree, the most severe risks are found west of the Berrocal Fault, where the topography becomes much steeper and geologic units are more prone to larger landslides.



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Exhibit 2, Landslide Areas, illustrates where major portions of the City of Saratoga are underlain by materials that are subject to landsliding. These soils are moderately stable when dry, but moderately unstable when saturated. Within the City boundaries, landslides are most likely to occur where silt and clay have been eroded along the stream channels traversing the City. Detailed geotechnical maps illustrating the areas within the City most susceptible to instability issues are provided in Appendix C – Geologic and Seismic Hazards Constraints Mapping.

The upper portion of landslide area(s) includes the hilly region south of Congress Springs Road, part of the natural channel of Saratoga Creek, a section of the Congress Springs Road alignment, and a considerable amount of the low foothills located north of the road. Slope movements have been noted in this region for over 50 years. The Congress Springs Road surface is significantly deformed and has been elevated approximately 14 feet since 1931 when the present alignment was constructed. All man-made structures within or south of this area have experienced extensive structural damage.

Saratoga also contains rock formations conducive to landslides. These formations are primarily exposed within the hillside portions of the City and Sphere of Influence west of Saratoga-Sunnyvale Road and southwest of Saratoga Los Gatos Road (Highway 9). Other areas within the City susceptible to landslides include portions of the Saratoga Creek drainage area, and the hillside areas west of San Tomas Aquinas Creek, east of Fruitvale Avenue, between Allendale Avenue and Highway 9. Landslides and unstable slopes are prevalent in this area, and can create hazards within the City limits as the slide debris and rock move toward the City's valley floor.

Active landsliding can also be traced across Belnap Way, Bohlman Road and On Orbit Drive and private driveways at a number of locations within the hillsides around Congress Springs. This area is considered an extremely high-risk area for development, even in those areas that appear to be stable at the present time. The equilibrium of even the most stable ground within this hillside could be destroyed by the advent of road construction, irrigation, alteration of natural drainage, or the introduction of septic tank effluent. Rapid failure of these slopes could cause considerable property damage, personal injury or loss of life.

The most extensive occurrence of landslide deposits is in the central portion of the watershed located north and south of the Mt. Eden Road-Pierce Road intersection. Examples of these large slide deposits are located on Pike Road. Within the same general area, the Quarry Road slide adjacent to the Calabazas Creek has moved part of the roadbed into the creek. Updated geotechnical maps identifying land instability issues within Saratoga are provided in Appendix C.

iii. Soil Creep and Expansive Soils

Soil creep is the slow, down slope movement of near-surface materials. Soil creep is prevalent in Saratoga, primarily in the western hillside regions of the City. The rate of soil creep is a function of slope angle, soil thickness and texture. It can be regarded as a continuous process, and may cause retaining walls, foundations and paved roads to fail over a period of time unaccompanied by any obvious signs of slope failure. The presence of soil creep should not have a prohibitive effect on land use, but should alert the City to require appropriate geotechnical investigations to evaluate conditions and to impose engineering solutions to mitigate problems.

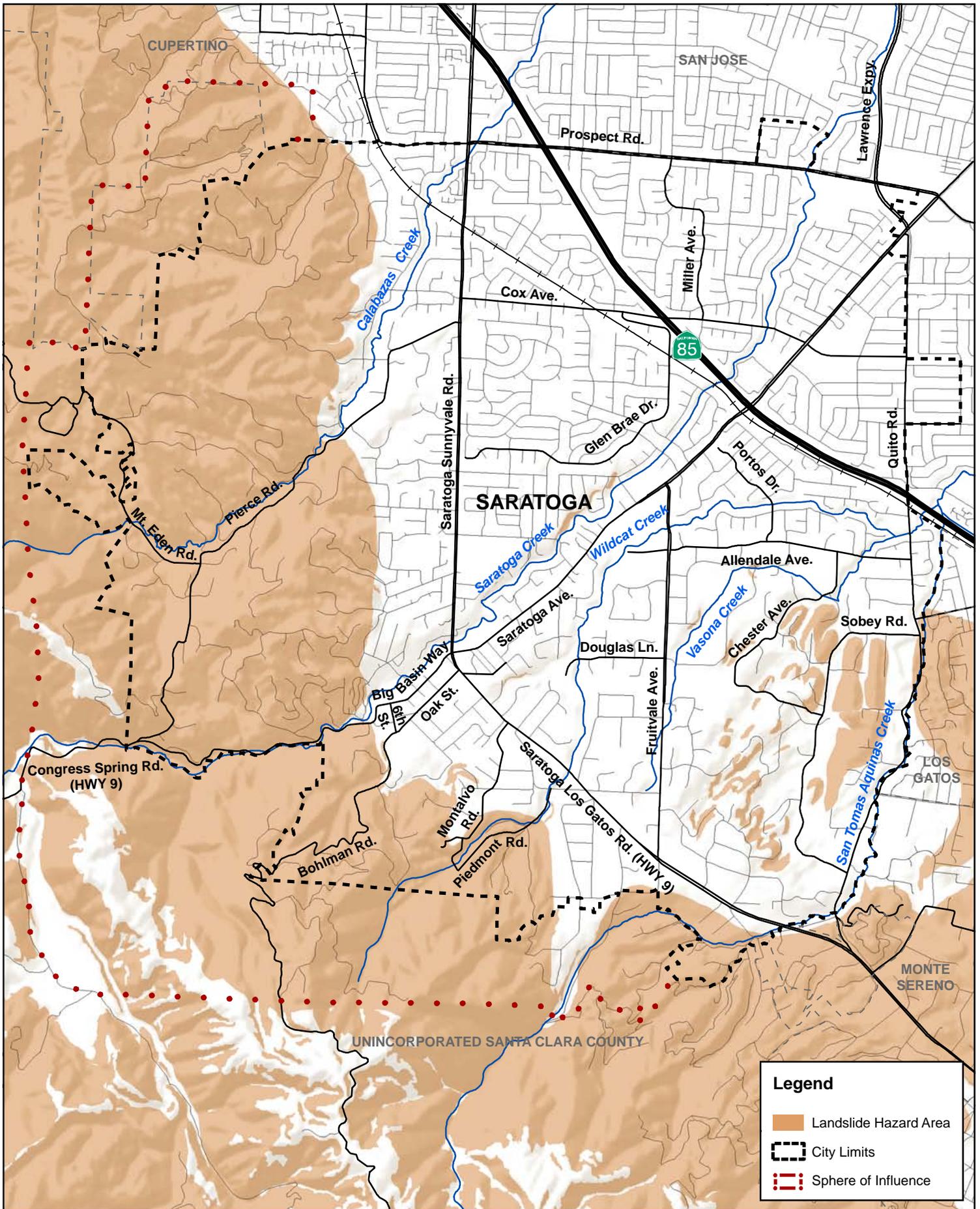
Expansive soils contain high proportions of clay and alternately absorb and release large amounts of water during wet and dry cycles. When structures are built on expansive soil, foundations may rise during the wet season, resulting in cracked foundations, distorted frameworks, and warped windows and doors. These adverse effects can be eliminated by recognition of expansive soils and application of remedial measures for site development and foundation design. All applications for site development and building permits should be accompanied by soil reports in areas where expansive soils exist.

iv. Regulatory Framework

Regulations regarding development in problematic geotechnical areas throughout the City are intended to protect citizens from potential geotechnical related hazards.

Federal Regulations

The purpose of the Federal Soil and Water Resources Conservation Act (1977) (16 United States Code Section 2001-2009) is to protect or restore the functions of the soil on a permanent sustainable basis.



Legend

- Landslide Hazard Area
- City Limits
- Sphere of Influence

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Local Regulations

The City of Saratoga requires detailed geotechnical investigations for all land use proposals located within geologically hazardous areas. Standards for development are listed in Article 16-15 of the City's Building Code, which incorporates the most recent California Building Code. Article 16-15 enforces Title 24 California Regulations and Article 16-17, which outlines permitted excavation and grading procedures.

B. SEISMIC HAZARDS

The identification of earthquake hazards in Saratoga can be categorized as primary hazards (i.e. fault rupture and seismic shaking) and secondary hazards. These hazards may include liquefaction, seismically induced landslides, subsidence, and seismically induced water inundation. Hazards increase in areas where seismic activity is combined with the potential for flooding, poor soil drainage, unstable surficial soil and steep slope, fire hazard and deteriorated structures and can result in extensive property damage, personal injury or death.

i. Primary Seismic Hazards

Identification of Active and Potentially Active Faults

The San Andreas Fault is the only known "active" fault in the vicinity of Saratoga. For planning purposes, an "active" fault is one that has experienced displacement within the last 11,000 years and can be expected to move again. The proximity of the fault, which traverses the City's Sphere of Influence along the ridge of the Santa Cruz Mountains, increases the probability of severe lateral displacement and ground shaking should an earthquake occur. Due to the active status given to this fault, it has been located within an Alquist-Priolo Special Study Zone, which requires specialized study to determine the location of the fault during the planning stage of the development process.

The Berrocal and Shannon Faults located within the City limits are considered two "potentially active" faults lying on the alluvial plain. A "potentially active" fault is one that has moved within the last 2 million to 11,000 years, and because it is considered capable of ground rupture or shaking, poses an unacceptable risk to a proposed structure.

These "potentially active" faults do not have reliable evidence of recent displacement along their fault traces. For this reason, the Santa Clara County Geologist has placed them in a special

study fault hazard zone consistent with the Santa Clara County Geologic Ordinance.⁷ Placement within this zone requires similar fault trenching studies as the Alquist-Priolo Special Study Zones for properties within the unincorporated County areas. Since these faults are located within the City of Saratoga, the City has the discretion to require studies deemed adequate by the City's Geologist, which may deviate from the County's requirements.

The Berrocal Fault belongs to the Sargent Fault Zone, a complex system of interconnecting faults extending northwest between the San Andreas and the Calaveras Faults. The fault trace crosses Congress Springs Road and continues into the southeastern portion of the Sphere of Influence. At least 0.5 mile of the Berrocal Fault within the City of Saratoga displayed sympathetic ground cracking in response to the 1989 Loma Prieta earthquake.

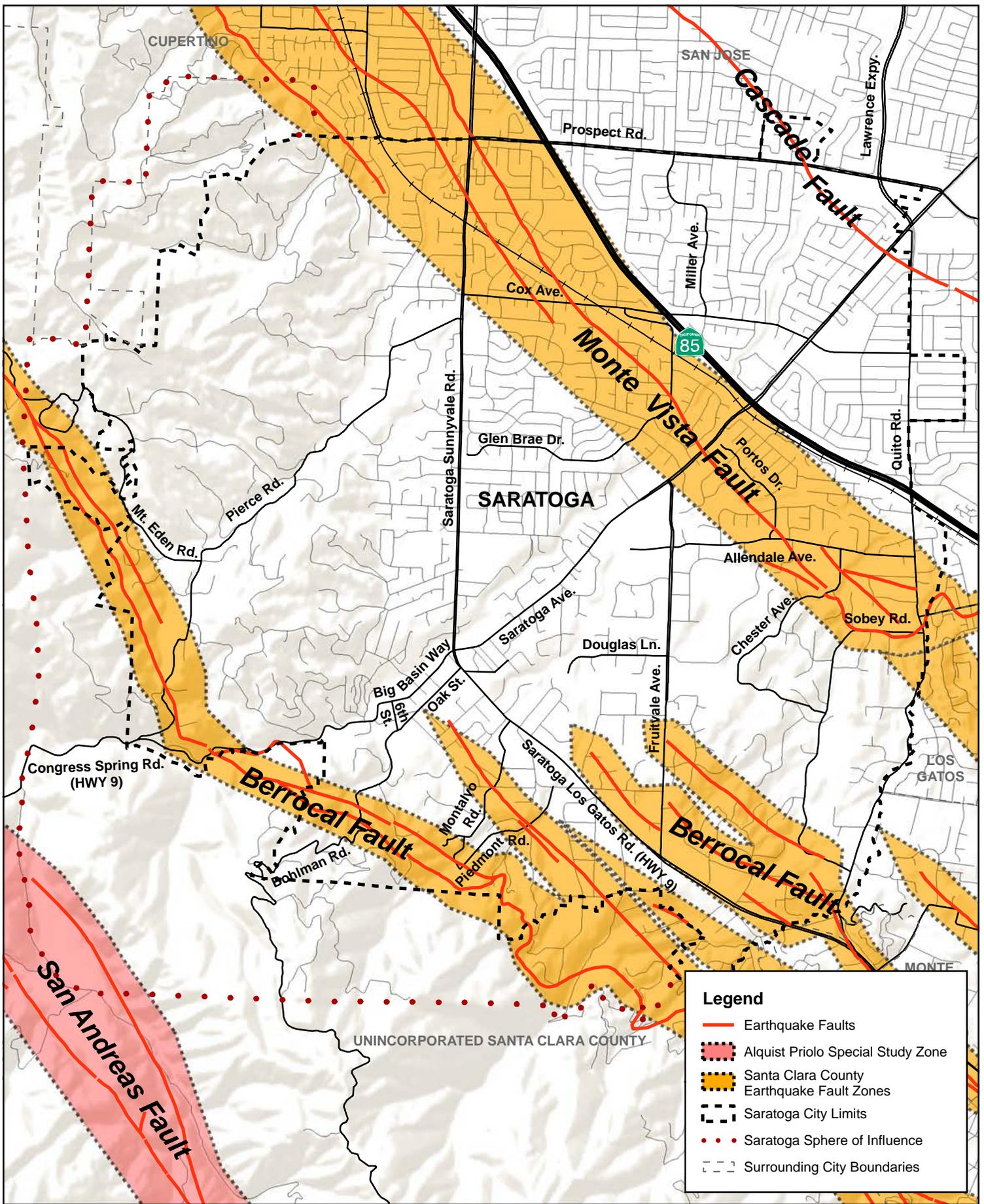
The Shannon Fault, part of the Monte Vista Fault system, closely parallels the State Highway 85 corridor from Regnart Creek (Cupertino) in the north, crossing Saratoga Avenue, and continuing to the Almaden Expressway in the southeast portion of San Jose. Although there is a chance that primary ground rupture could occur on either of these fault traces in the future, it is more likely to occur on the San Andreas Fault. *Exhibit 3, Fault Location Map and Earthquake Fault Zones*, illustrates the location of local faults that present a hazard to Saratoga.

Ground Shaking

The most widespread effect of an earthquake is ground shaking, or the movement of the earth's surface in response to seismic activity. Ground shaking is often the greatest cause of physical damage. Structures of all types, including buildings and utility facilities may suffer severe damage or collapse if not properly designed to withstand the intensity of the shaking.

The major threat to people in both the City of Saratoga and its Sphere of Influence is structural failure of buildings or failure of slopes due to shaking. Because of the steep slopes and network of fault lines in the hillside areas closest to the San Andreas Fault Zone, it is essential to enforce strict earthquake construction and soil engineering standards in order to select the most stable building sites and to compensate for soil instabilities through the use of approved engineering and construction techniques.

⁷ Title C, Division C12, Chapter IV of the Santa Clara County Municipal Code establishes minimum requirements for the geologic evaluation of land based on proposed land uses.

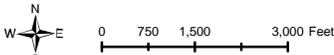


Legend

- Earthquake Faults
- Alquist Priolo Special Study Zone
- Santa Clara County Earthquake Fault Zones
- Saratoga City Limits
- Saratoga Sphere of Influence
- Surrounding City Boundaries

SAFETY ELEMENT

Fault Location Map and Earthquake Fault Zones



Prepared by RBF Consulting: 12/04/2012
 Sources: City of Saratoga - Zoning Map (2010) ; County of Santa Clara - CityLimits (2010) StreetEdge (2009) Fault Rupture Hazard Zones (2002) ; ESRI Terrain Basemap

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California has a long history of strong earthquakes that have affected communities in the Saratoga area.⁸ The largest earthquake to occur within 10 miles of Saratoga was the 6.9 M Loma Prieta Earthquake that occurred along the San Andreas Fault in 1989.⁹ Saratoga's close proximity to the San Andreas Fault Zone and other potentially active faults suggests a high probability that a strong earthquake will occur in the near future in the vicinity of the City.

Surface Rupture

Surface rupture, or a break in the ground's surface and the associated displacement caused by the movement of a fault, is directly correlated to earthquake magnitude. Earthquakes having a magnitude of 5.5 or greater are required for such events to occur. During the 1906 San Francisco earthquake (magnitude 7.8), ground rupture occurred along 270 miles of the San Andreas Fault, with a 20-foot offset occurring near the epicenter in Marin County.

In response to the 1971 San Fernando Earthquake, the State of California enacted the Alquist-Priolo Fault Zoning Act in 1972, which is intended to prevent the construction of habitable structures on top of an active fault line. In conformance with this act, properties located within an Alquist-Priolo Special Study Zone are required to identify the location of any active faults and establish appropriate setbacks, if deemed necessary. In addition to regional investigations necessary to the basic understanding of faults and their histories, detailed site investigations are needed prior to the approval of construction in any suspected or potentially active fault zone.

Utilities, roads and other linear features are particularly vulnerable to damage resulting from ground displacement. Little rural residential development has taken place within the San Andreas Fault Zone in Saratoga's Sphere of Influence, so the present risk of structural damage due to fault rupture is minimal. However, utility facilities such as gas and electric lines that may traverse the fault zone may be subject to damage from surface rupture.

ii. Secondary Seismic Hazards

Ground Failure

Ground failure is a secondary effect of earthquake shaking that can be potentially dangerous and damaging. Ground failure effects include landslides, rock falls, subsidence, liquefaction

⁸ USGS Database, http://earthquake.usgs.gov/earthquakes/states/historical_state.php#california, accessed October 30, 2012

⁹ USGS Database, http://earthquake.usgs.gov/earthquakes/states/events/1989_10_18.php, accessed October 30, 2012

and ground lurching in areas not actually ruptured by a fault. All of these activities involve the displacement of ground surface due to loss of strength or failure of the underlying materials during earthquake shaking. Moisture content and groundwater levels play an important role in the assessment of the potential for ground failure, as do soil type and slope instability.

The San Andreas Fault Zone and the hills to the northwest of the City are estimated to have a high probability of landslide potential should an earthquake occur, while the likelihood of subsidence and ground lurching in these areas is low.

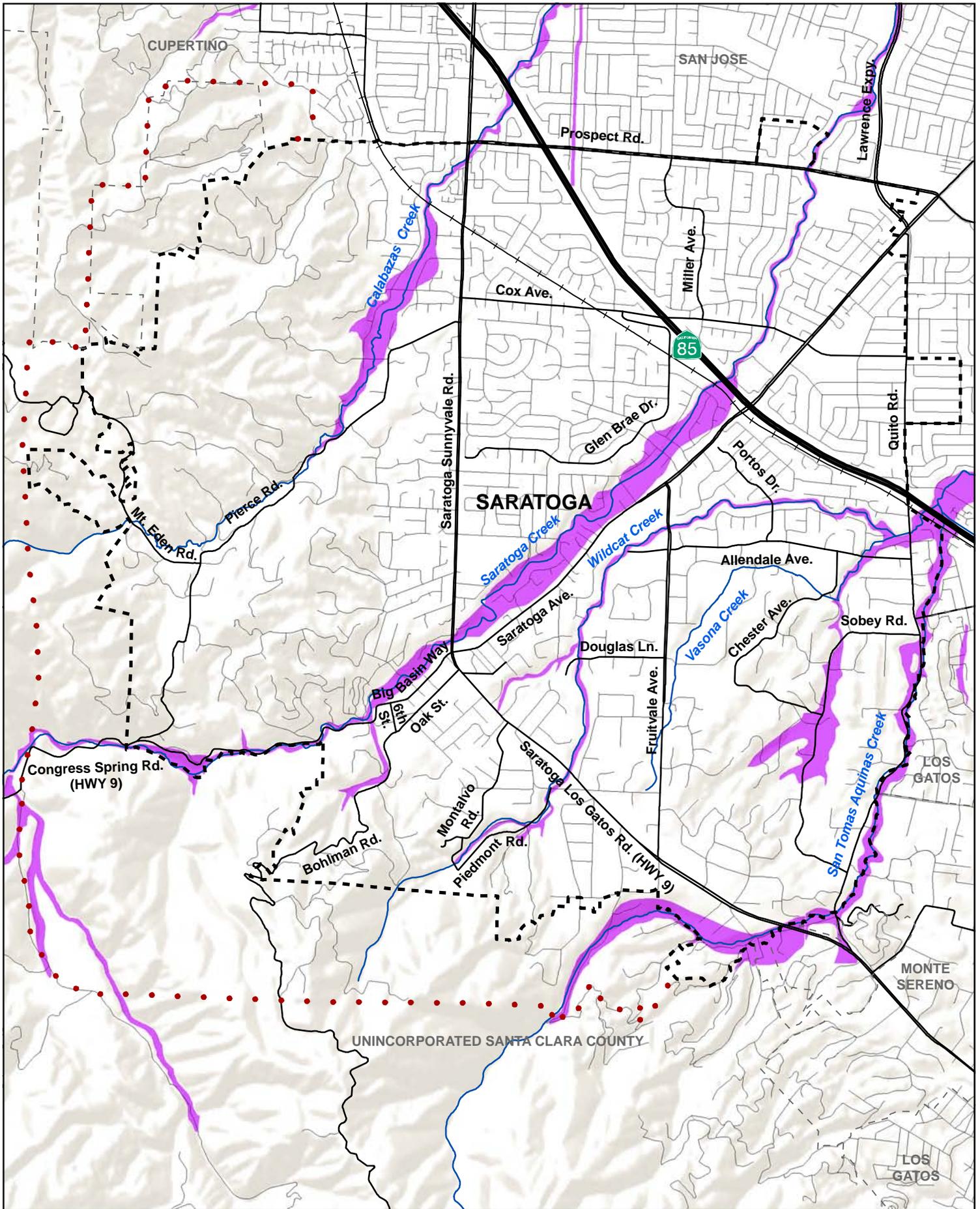
The Bohlman Road area is known for unstable slopes and is considered to have a high potential for seismically induced landslides.

The Santa Clara Valley floor, the most populated area of Saratoga, is relatively flat but is traversed by several creeks. While this area may not experience landslide or ground lurching during an earthquake, there is a moderate probability that subsidence and/or liquefaction could take place due to the loosely compacted alluvial soil. Refer to Exhibit 4, Liquefaction Areas.

Structural Hazards Related to Seismic Activity

The majority of residential structures in the City of Saratoga are single-story wood framed homes constructed post-1950. This construction tends to fare well during earthquakes because of the flexibility of the building materials. While it is impossible to guarantee the safety of any structure, a clearly defined and conscientious practice of structural reinforcement will greatly reduce injury and loss of life. Establishing appropriate setbacks to prohibit development near or on fault lines is another precaution to minimize structural damage.

Many commonly used building components, such as unreinforced stone or brick chimneys and unreinforced masonry, are particularly susceptible to ground shaking. Among newly constructed buildings, particularly those for commercial use, small steel frame buildings are generally considered the safest, while unreinforced masonry and tilt-up structures are regarded as posing a greater risk. Because Saratoga is predominantly a residential community, it does not have a vast number of unreinforced masonry or tilt-up structures. At the present time, there are no tilt-



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up structures in the City, and according to Saratoga's Local Hazard Mitigation Plan, which is an annex to the Santa Clara County Local Hazard Mitigation Plan; all existing unreinforced masonry structures have been retrofitted.

Seismically Induced Flooding and Dam Failure

Should a dam fail during an earthquake, the released water could cause flooding downstream. The resulting damage is dependent on the rate of water released and the volume of water in the reservoir. Dam failure can either be caused by ground displacement along a fault trace, ground shaking or overtopping of the dam by a large landslide splash wave.

The Lake Ranch reservoir located to the south of Saratoga's Sphere of Influence is the most likely reservoir to be affected by seismic activity. Operated by the San Jose Water Company, Lake Ranch reservoir is located in a saddle-shaped depression near the southern portion of Sanborn Road and was created by the construction of a small earthen dam at each end. Both dams are traversed by the San Andreas Fault and withstood the 1906 and 1989 earthquakes on this fault. Current estimates indicate that if dam failure occurs during an earthquake, up to 105 million gallons of water could be released into Saratoga Creek. This volume of water is expected to inundate the creek bed in a comparable manner to the flooding hazard from a 100 year flood.¹⁰ The southeasterly flow of the reservoir storage would impact areas outside of the City's Sphere of Influence near the Santa Cruz County line, while the northeasterly flow would flood areas along Quito Creek.

Other flooding hazards resulting from the secondary effects of seismic activity could occur if landslides are activated and advance into creek beds. Along Big Basin Way, near the San Jose Water Company's Saratoga filter plant, a landslide could conceivably block both the road and Saratoga Creek during an earthquake. This area has experienced movement in the past, and has required periodic maintenance and the construction of expensive drainage facilities at the site. Refer to Exhibit 5, Dam Failure Inundation Areas.

¹⁰ Discussion of the 100-year flood conditions within the City is provided in Section C. Flood Hazards and depicted on Exhibit 6, FEMA Flood Zones.

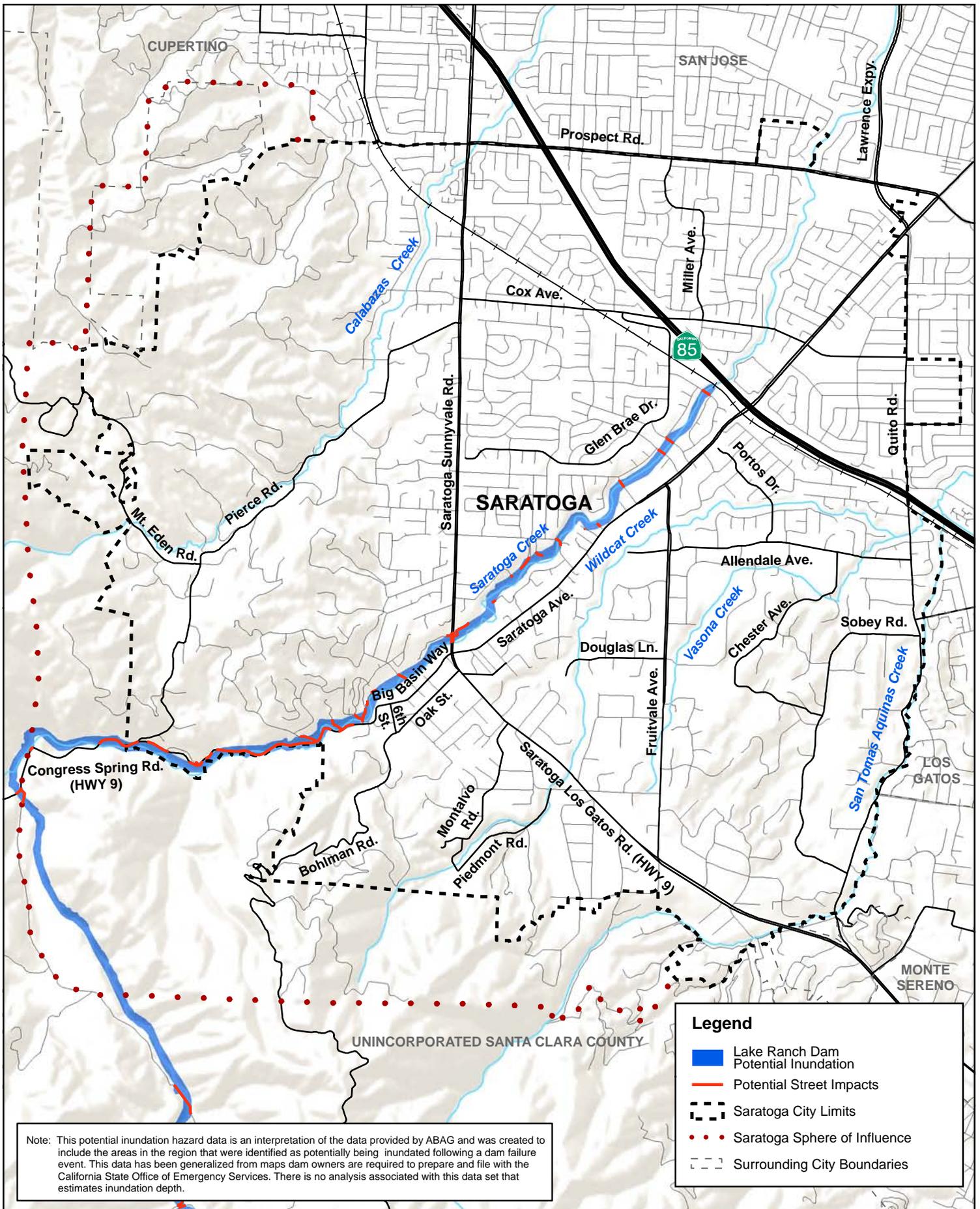
Other Potential Hazards Related to Seismic Activity

Public and quasi-public facilities such as utility systems may be at risk from the secondary effects of seismic activity. In the aftermath of a major earthquake, facilities of particular importance, such as water tanks, pipelines including gas, water and sewer, electrical and communications systems, and roads, bridges and freeways, are regarded as the “lifelines” of the community for the provision of emergency services. Many of these utilities unavoidably cross hazardous areas, and could be disrupted and seriously impaired in the event of an earthquake. Water distribution, sewage disposal and gas systems are particularly vulnerable. Disruption of these systems after an earthquake will be dependent not only upon the location and magnitude of the earthquake and specific site conditions, but also on the condition of the lines, pumps and plan facilities. Water pumps require electricity units to operate, so a system could fail at multiple points. Pipelines and storage tanks containing flammable materials could rupture igniting the contents and increasing fire hazards in parts of the City. The utilities that are most likely to be disturbed in the City and its Sphere of Influence are in the San Andreas Fault Zone and the Bohlman Road area.

Several safety measures have been used by the utility providers within the City to reduce the risk of utility system or infrastructure breakdown during an earthquake. San Jose Water Company provides back up power sources to critical facilities and pipelines that are degraded or in disrepair on an annual basis are retrofitted or replaced through their Capital Improvements Program.¹¹ Water comes to Saratoga from infrastructure operated by San Jose Water Company. Water sources include groundwater pumped from over 100 wells that draw water from the Santa Clara Groundwater Basin, imported surface water provided by the Santa Clara Valley Water District, and local mountain surface water from the Santa Cruz Mountains and treated at San Jose Water Company's water treatment plants.¹² While it is unlikely that all sources would be shut off simultaneously, a limited reserve of replacement equipment might delay the restoration of service. After an earthquake or disaster, San Jose Water Company would implement its own emergency operating plan to serve Saratoga.

¹¹ Personal communication, Jim Wollbrink, San Jose Water Company, November 29, 2012.

¹² San Jose Water Company Website located online at http://www.sjwater.com/for_your_information/education_safety/water_supply/, accessed October 30, 2012



Note: This potential inundation hazard data is an interpretation of the data provided by ABAG and was created to include the areas in the region that were identified as potentially being inundated following a dam failure event. This data has been generalized from maps dam owners are required to prepare and file with the California State Office of Emergency Services. There is no analysis associated with this data set that estimates inundation depth.

Legend

- Lake Ranch Dam Potential Inundation
- Potential Street Impacts
- Saratoga City Limits
- Saratoga Sphere of Influence
- Surrounding City Boundaries

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The problem of water supply and distribution in the hillsides and the Sphere of Influence could become acute after an earthquake. In the summer, when streams are dry, dependence on private sources might be inadequate for emergency needs. In addition, damage to roadways, freeways and bridges can be expected during a major earthquake. However, recently constructed reinforced concrete bridges and overpasses are considered to be more resilient to earthquake movement than older bridges and overpasses. Several local bridges¹³ in the City could be subject to failure during an earthquake if they were not constructed in accordance with current seismic design parameters. Facilities in the City are also in areas of high groundwater levels and unstable creek beds: Springer Avenue at Big Basin Way, Fourth Street near Big Basin Way, Sarahills Road near Pierce Road, and Chalet Clothilde Drive near Pierce Road.

One of the most critical concerns following an earthquake is the provision of emergency care for the injured at major hospitals and health care facilities. Some hospitals may not be operational after a major earthquake, especially if they are located near the San Andreas Fault. According to the Saratoga Emergency Operations Plan, there are two hospitals in the vicinity of Saratoga: Community Hospital on Pollard Road and Mission Oaks Hospital on National Avenue, both located in Los Gatos. In the event that an earthquake causes the City to become isolated from the rest of the Santa Clara Valley, hospitals in San Jose region may not be available if roadways are damaged. Schools in the City would be used as Emergency Shelters where mass care and feeding could occur. Additionally, emergency planning and training efforts with the Saratoga Union School District, the Los Gatos-Saratoga Union High School District, Blue Hills and McAuliffe Schools from the Cupertino Union School District, Prospect High School, St. Andrews School, and Sacred Heart School are active and continuous so that these entities will be prepared and self-sufficient during a disaster.

iii. Regulatory Framework

State Regulations

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code, Chapter 7.5, Section 2621-2699.6) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards, such as subsidence or liquefaction. The Act requires

¹³ Bridges within Saratoga include: Prospect Road/ Hwy 85, Cox Avenue/ Hwy 85, Saratoga Avenue/ Hwy 85, Quito Road/ Hwy 85, Saratoga Creek/ Hwy 85, and the railroad crossing over Saratoga Avenue west of Hwy 85.

the State Geologist to establish regulatory zones, known as “Earthquake Fault Zones,” around the surface traces of active faults and to issue appropriate maps.

The Seismic Hazards Mapping Act (SHMA) of 1990 (California Public Resources Code, Chapter 7.8, Section 2690-2699.6) provides a statewide seismic hazard mapping and technical advisory program to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and other seismic hazards caused by earthquakes.

California building standards are published in the California Code of Regulations, Title 24, known as the California Building Standards Code (CBSC). The CBSC applies to all applications for residential building permits. The CBSC consists of 11 parts that contain administrative regulations for the California Building Standards Commission and for all State agencies that implement or enforce building standards. Local agencies must ensure that development complies with the guidelines contained in the CBSC.

Local Regulations

The City has standards for development listed in Article 16-15 of the City's Building code, which incorporates the most recent California Building Code and enforces Title 24 California Regulations.

C. FLOOD HAZARDS

Historically, periodic flooding has been a benefit to agricultural soil, wildlife and the general ecological balance of a community. Flooding becomes a natural hazard when the flow of water threatens life and damages personal property. Damages from flooding increase in proportion to the growth of urban development and as subdivisions locate in areas prone to flooding.

Floods are primarily caused by excessive surface runoff resulting from intense or heavy rainfall or from the failure of flood control or water supply structures, such as levees or reservoirs. When prolonged rainfall exceeds the absorption rate of the soil or the waste storage capacity of the watershed, the excess must flow downstream. Although it is impossible to prevent excessive rainfall that causes major floods, it is possible to develop methods and policies for the management of areas subject to flooding and for the protection of life and property. Through

the use of hydrologic data in conjunction with regulatory and flood proofing measures, proper land use planning can be effective in the control of flooding and its possible adverse effects.

i. Historical Data on Flooding in Saratoga

All surface water originating in or passing through Saratoga ultimately discharges into the San Francisco Bay. Runoff is collected in the City's underground storm drainage system, which discharges into the creeks throughout the City. Three major drainages are located within Saratoga and all drain from south to north. From east to west, these creeks are the San Tomas Aquino, Saratoga and Calabazas Creeks. Wildcat, Vasona and Sobey Creeks are tributaries within the San Tomas Aquino Creek drainage system, while Prospect and Rodeo Creeks are tributaries of Calabazas Creek. San Tomas Aquino and Calabazas Creeks discharge into the Guadalupe Slough near the Bay, with Saratoga Creek joining San Tomas Aquino north of the City.

Floodplain mapping prepared by the Federal Emergency Management Agency (FEMA) indicates that several areas throughout the City are located within the 100-year floodplain. Flooding in the early years was often viewed as an asset rather than a liability, since the need for water to irrigate agricultural crops outweighed the damage done by floodwater. As urban development has increased, damage became a more important consideration as population growth and the completion of water retention facilities in the area combined to alter the pattern of potential flooding.

The severity of floods in relation to urban development varies from year to year. Several significant flooding events have occurred in Saratoga, dating back as far as 1914. The Santa Clara Valley Water District has made progress in improving the channels as funds became available. As a result, flood damage has been reduced over the years. During an average year, residents of the area experience minor flooding events and most potential hazards are now being proactively addressed through the development review process.

ii. Identification of Areas Subject to Flooding

Several creek areas in Saratoga have been identified as specific flood hazard areas, as shown in Exhibit 6, FEMA Flood Zones. Saratoga Creek has the largest floodplain in width and length. The widest portion of the floodplain is south of the Southern Pacific Railroad tracks. Wildcat,

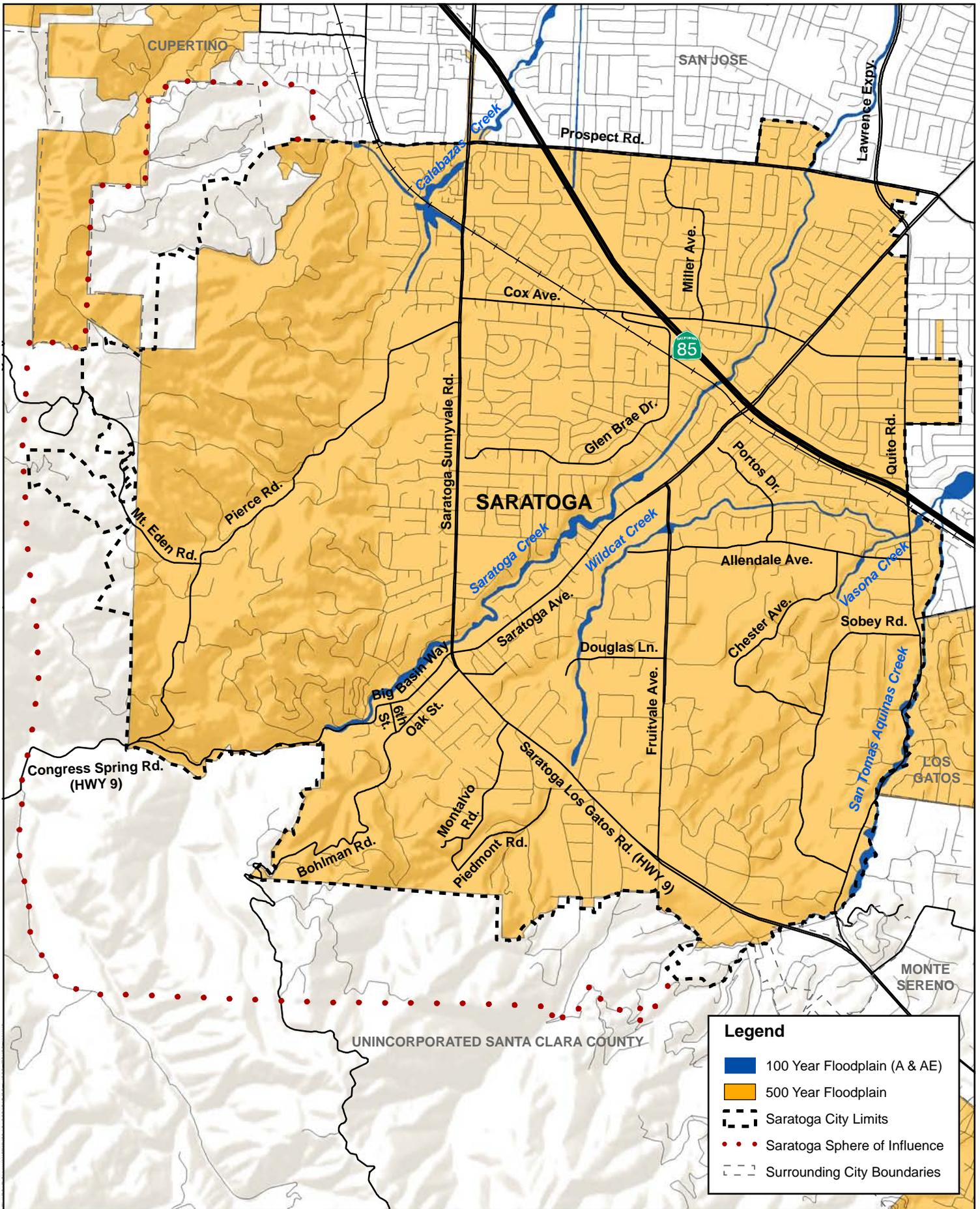
Vasona and San Tomas Aquino Creeks also are subject to the 100-year flood hazards. Recent improvements to these creek channels have greatly reduced the potential for flood damage in adjacent areas.

Calabazas Creek's 100-year floodplain within the City extends from Prospect Road to Wardell Road, between Saratoga-Sunnyvale Road and Arroyo de Arguello, where the watershed branches out in a westward direction. Although much of the terrain lying within the upper Calabazas Creek watershed is characterized by steep hillsides, heavy rainfall during past years has saturated unstable slopes and caused the groundwater level to rise, triggering landslides of mud and debris into the creek channels. To address many of these flooding issues, the Santa Clara Valley Water District has initiated the Calabazas Creek Flood Protection Project, which proposes the construction of a detention basin adjacent to the creek, the modification of the culvert beneath Saratoga-Sunnyvale Road, and replacement of the Union Pacific Railroad bridge over the creek. These improvements are intended to provide 100-year flood protection within the Calabazas Creek watershed.

iii. Flood Control and Land Development Review

The flood hazard areas of the City are subject to periodic inundation, which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base. These flood losses are caused by uses that are inadequately elevated, flood proofed, or protected from flood damage. The cumulative effect of obstructions in areas of special flood hazards that increase flood heights and velocities also contribute to the flood loss. In response to this, the City has implemented a Floodplain Management Plan, which is codified under City Code Article 16-66.

The floodplain management plan includes methods and provisions to control the alteration of natural floodplains, stream channels, and protective barriers; to control filling, grading, dredging and other development that can increase flood damage; to regulate the construction of flood barriers which can divert flood waters or increase flood hazards in other areas; and to require that uses vulnerable to floods be protected against flood damage at the time of their construction. One of the provisions of this plan requires a development permit be obtained prior to construction or development begins. Additionally, certain construction standards, such as



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anchoring, building with flood resistant materials, and elevating and flood proofing, are required within an area of special flood hazard. The plan requires new and replacement water and sanitary sewage systems shall be designed to minimize flood water infiltration and discharge into flood waters. Standards are also included for subdivisions and manufactured homes.¹⁴

iv. Flood Control and Emergency Services

The City of Saratoga has participated in the National Flood Insurance Program (NFIP) since 1973. As part of the City's implementation of their NFIP requirements, City Code Article 16-66, Flood Plain Management was adopted by the City Council in 1996 via Ordinance No. 71-167. The City of Saratoga utilizes digital flood insurance rate maps, flood insurance studies, and other studies supplied by applicants when developing properties located in flood hazard areas to regulate development in flood hazard areas. The City has no repetitive flood loss properties.

v. Regulatory Framework

Federal Regulations

FEMA performs the following functions:

- Advises on building codes and flood plain management;
- Teaches people how to get through a disaster;
- Helps equip and prepare local and state emergency managers;
- Coordinates the federal response to a disaster;
- Makes disaster assistance available to states, communities, businesses and individuals;
- Trains emergency managers;
- Supports the nation's fire service; and
- Administers the national flood and crime insurance programs

The Flood Plain Management Act (Cobey-Alquist Act of 1969) introduced the concept of reserving areas along stream channels from future development for flood prevention projects. At the city level, Saratoga has an extensive review procedure in conjunction with the County of Santa Clara that addresses flooding potential and the impact on development.

¹⁴ Santa Clara County Local Hazard Mitigation Plan, Saratoga Annex, page 21-28

Local Regulations

In addition, Article 16-66 of the City's Municipal Code governs floodplain management. All development that could be affected by seasonal flooding is subject to the regulations and standards of Article 16-66 to mitigate flood-related losses or damage to the fullest extent feasible.

D. FIRE HAZARDS

Most fires are started by people, either intentionally or through carelessness. The places of greatest concern for fire prevention are where people live, recreate, drive or work. Once ignited, a fire can quickly blaze out of control when weather and physical site conditions are amenable. In addition to the direct hazards to people and property, indirect damages and economic losses may also occur, such as erosion and siltation of dams and flood control channels, increased flood hazards, damage to watersheds, increased potential for mud slides, and losses to scenic and recreational values.

Development in areas of fire hazard should be guided by prevention requirements, such as fire resistant building construction and materials, adequate space between structures, available water supply, fire resistant plant materials, quality of year-round firefighting service, available evacuation routes, access routes level enough for fire equipment use, and creation and maintenance of fire breaks in brush areas.

Access is a key component of fire hazard prevention; fire-fighting equipment must be able to reach fires and residents and visitors must be able to evacuate during a fire. Private roads, particularly in hillside areas, are less likely to meet access and maintenance standards required for public roads. The most effective method for avoiding fire risk in hazardous areas is the regulation of housing development and the provision of alternate access routes for developed areas. Unmaintained county roads may fail to meet City road construction standards and may not provide adequate or alternative means of access.

Although fire protection services in the City and the Sphere of Influence are considered adequate for most emergencies, they may prove inadequate in the event of an earthquake. Fires associated with an earthquake are often scattered and spread rapidly due to an impaired water system. In such cases, Saratoga's current level of fire services could be insufficient and

water could be unavailable if reservoirs are ruptured or streams are obstructed. During minor emergencies, fire stations within the vicinity of the City could provide assistance, but major emergencies, such as large-scale fires, would require mutual aid from surrounding Counties, State, and Federal Agencies.

i. Fire Protection in Saratoga¹⁵

Santa Clara County Fire Department

The Santa Clara County Central Fire Protection District a.k.a. Santa Clara County Fire Department (herein referred to as “SCCFD” or “County Fire”) is a county-dependent special district providing fire suppression, basic and advanced rescue, advanced life support first response medical services, hazardous materials and technical rescue response, fire inspection, fire investigation, disaster preparedness, and public education.¹⁶

The Department is divided into five service divisions: Administrative Services, Fire Prevention Division, Operations Division, Training Division, and Support Services Division. The Fire Department personnel serve the territory from 17 fire stations.¹⁷

The City of Saratoga is served by four fire stations, which include:

<p><u>Saratoga Fire Station</u> 14380 Saratoga Av Saratoga, CA 95070</p>	<p><u>Quito Fire Station</u> 18870 Saratoga/Los Gatos Rd Los Gatos, CA 95030</p>
<p><u>West Valley Fire Station</u> 19800 Cox Av Saratoga, CA 95070</p>	<p><u>Seven Springs Fire Station</u> 21000 Seven Springs Pkwy Cupertino, CA 95014</p>

Saratoga Fire Protection District

In addition to the Santa Clara County Central Fire Protection District, the City of Saratoga is also served by the Saratoga Fire Protection District. This special district was established in 1923

¹⁵ Santa Clara County Fire Department Website, online at <http://www.sccfd.org/suppression.html>, accessed October 30, 2012

¹⁶ Santa Clara County Fire Department, Strategic Plan, January 2010-December 2014.

¹⁷ Santa Clara County Fire Department, Business Plan, January 2010-December 2014.

and provides oversight and administration of the City's Early Warning Fire Alarm System, aimed at reducing fire response times. The district is co-located with the Santa Clara County Fire Department in the Saratoga Fire Station.

ii. Assessment of Fire Risk in Wildland Areas

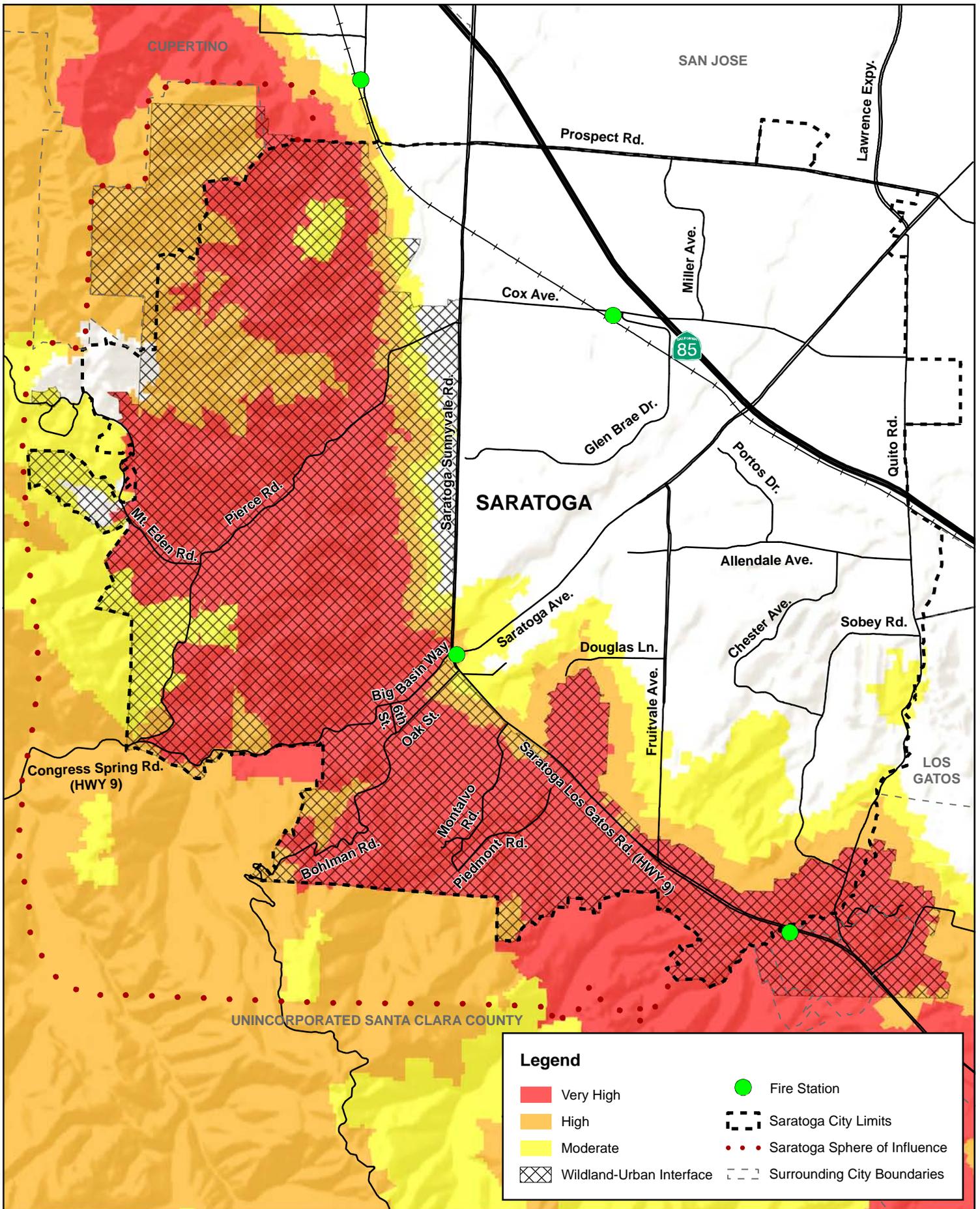
Saratoga is susceptible to wildland fires due to the steep topography, abundant fuel load, and climatic conditions, particularly along the western and southwestern edges of the City. The areas most susceptible to fire hazard are located west of Saratoga-Sunnyvale Road and southwest of Saratoga-Los Gatos Road (Highway 9). Based on the Fire Hazard Severity Zone mapping prepared by Cal FIRE, this portion of the City is identified within Very High, High, and Moderate Fire Hazard Zones.¹⁸ As a result of this condition, the City (in coordination with CAL FIRE) has established a Wildland-Urban Interface zone, which covers a majority of the areas within the City that have moderate to very high fire hazard potential. Most of these areas are located in the southern and western portions of the City, as depicted in Exhibit 7, Fire Hazard Zones. As a result of this potential hazard, special fire protection measures and planning are necessary within these areas of the City before development occurs.

The hillside areas of the City are characterized by native brush, grasslands and trees which are prone to wildfire. While the low density of housing in these areas minimizes the potential danger to humans and structures, there is a danger that fire in one structure will start a wildfire which could consume significant areas of the City.

The Santa Clara County FireSafe Council encourages a defensible space around residences to protect homes while providing a safe area for firefighters. This defensible space is typically split into a "Lean, Clean, and Green" Zone (low lying irrigated landscaping), and a "Reduced Fuel Zone" (natural vegetation thinned to reduce fuel load). The same requirements (as well as additional development regulations) are reinforced by the Uniform Fire Code for wildland-urban interface areas.

Access and parking for emergency vehicles and delays in response time are the major public safety concerns in this area. All fire apparatus access roads are required to have a pavement

¹⁸ City of Saratoga Local Hazard Mitigation Plan, 2012



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width of 20 feet. Buildings within the City's wildland-urban interface require fire access. Driveways in excess of 150 feet in length shall be provided with turnarounds and driveways in excess of 200 feet in length and less than 20 feet in width shall be provided with turnouts in addition to turnarounds.

Given the wildland-urban interface condition within the City, the Santa Clara County Fire Department trains and equips their personnel to provide structure protection and limited initial attack on wildland incidents. The goal is to prevent a fire in wildland space from expanding into other high fire hazards areas. The fire hazard in Saratoga's Sphere of Influence outside the City limits is considerably higher than in the City and its incorporated hillsides. The major problems contributing to adverse firefighting conditions in the Sphere of Influence include: areas of steep slope, lack of adequate water supply, and intense vegetative cover. Mutual Aid Agreements with other fire jurisdictions are in place to provide as-needed assistance and coverage for fire emergencies within Saratoga and its surrounding environs.

Saratoga Fire Protection District Early Warning Fire Alarm System

The Saratoga Fire Protection District is responsible for providing fire awareness information and administering the Early Warning Fire Alarm System for Saratoga residents. Residents who install fire systems and subscribe to the service can quickly notify fire personnel of any fires. This keeps response times low and allows firefighters to suppress fire emergency situations quickly.

New single-family residences constructed within the City are generally larger than the older existing homes (typically in excess of 5,000 square feet). Because of the size of these newer dwellings, a fire may be more difficult to extinguish and, therefore, could potentially cause more damage than would normally occur. As a result, Saratoga requires that all new construction include an automatic fire sprinkler system, and Early Warning Fire Systems be installed in the following situations:

- All new single-family dwellings, commercial structures and community facilities located within the Wildland-Urban Interface Area.
- Any existing single-family dwelling, commercial structure or community facility which is expanded by fifty percent or more in floor area and is located within the Wildland-Urban Interface Area.

- All new single-family dwellings, commercial structures and community facilities having a floor area in excess of five thousand square feet.
- Any existing single-family dwelling, commercial structure or community facility that is expanded by fifty percent or more in floor area which, after such expansion, will exceed five thousand square feet in floor area.
- All new multi-family dwellings and other new structures having multiple sleeping units including, but not limited to, hotels, motels, apartments, condominiums or other community housing projects, townhouses and nursing homes.
- Any existing multi-family dwelling or other structure having multiple sleeping units that are expanded by fifty percent or more in floor area.

In the event of an urban fire, ladder trucks and response engines from the Santa Clara County Fire Department are the designated responders on all first and second alarms within urban areas.

Assessment of Fire Risk in Urban Areas

Fire hazards in the flat, urbanized areas of Saratoga are relatively low. Although these areas are higher in population density than the hillside areas, excessive amounts of combustible vegetation is not present. The City's Fire Code and trash pickup service have contributed to removing a large portion of combustible vegetation and trash in the City's urban area. Response time for fire protection services are only a few minutes to any of the City's more densely populated neighborhoods, and the peak load water supply requirement of 1,000 gallons of water per minute for two hours is more than adequate for these areas.

The summer fire season poses the greatest threat to residential areas in the City, particularly during periods of high temperatures accompanied by extremely dry vegetation. Residences with wood shake shingle roofs are especially susceptible to fire. Their vulnerability increases dramatically during periods of drought and high winds and become a major concern to the fire personnel. The future adoption of standards for fire retardant roof materials and residential sprinklers for all areas of the City should be considered.

iii. Regulatory Framework – Fire Protection

State Regulations

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California’s privately-owned wildland.

Santa Clara County Regulations

The Santa Clara County Fire Department has multiple publications and pamphlets to educate residents on the dangers of wild and urban fire, how to defend against a fire, and how to eliminate hazards that could prove costly in the event of a fire. This information is readily available to residents, businesses, and interested stakeholders within Saratoga and surrounding communities.

City of Saratoga Regulations

Chapter 16 of the Saratoga Municipal Code includes the most recently adopted State codes (Building Code, Fire Code, Residential Building Code, etc.) associated with fire regulations that affect development within the City. The requirements include the installation of Early Warning Fire Alarm Systems and fire sprinkler systems.

Chapter 14 of Saratoga's Municipal Code (Subdivision Ordinance) requires a peak load water supply of 1,000 gallons of water per minute for two hours for all housing developments. All new developments are expected to meet this requirement and would not receive development approval until adequate infrastructure is in place to support the proposed use.

iv. Hazardous Materials Storage and Disposal

The Santa Clara County Department of Public Health administers the Hazardous Materials Program for the County. The Hazardous Materials Program is part of the Hazardous Materials Compliance Division (HMCD) within Santa Clara County Department of Environmental Health. HMCD is the Certified Unified Program Agency (CUPA) for all areas of Santa Clara County other than the cities of Santa Clara, Gilroy, and Sunnyvale. HMCD provides comprehensive environmental regulatory compliance inspection services to protect human health and the environment. Additionally, program personnel perform plan reviews and inspections associated

with the construction, upgrading, and closure of hazardous materials storage facilities and equipment.¹⁹

Saratoga does not have an identified problem with hazardous materials storage and handling. No major chemical handlers are located in the City. Storage, use and disposal of hazardous materials is typically limited to automotive service stations located in the City and normally consists of anti-freeze, brake fluid, motor oil, and gasoline.

The Santa Clara County Local Hazard Mitigation Plan indicates that hazardous materials spills are not of particular concern to the City of Saratoga. Generally, hazardous materials are transported through the City rather than to a location within the City limits for storage or use. The main transportation routes for these materials are Saratoga-Sunnyvale Road, State Route 9 and State Route 85. If a hazardous chemical spill occurs, surface and groundwater contamination is possible. Floodplains and creeks lie in close proximity to the primary transportation routes and can become contaminated quickly between the time a spill occurs and the clean-up process begins. Any spills that may occur within the City would be responded to by the Santa Clara County Fire Department with the clean-up operation being the responsibility of the County of Santa Clara and the State of California.

v. Regulatory Framework (Hazardous materials)

Federal and State Regulations

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal Federal law in the United States governing the disposal of solid waste and hazardous waste.

The responsibility for implementation of the Federal Resource Conservation and Recovery Act (RCRA) was given to California EPA's Department of Toxic Substances Control (DTSC) in August 1992. The DTSC is also responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law.

In addition to the U.S. EPA and the DTSC, the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region (Region 2), is the enforcing agency for the protection and restoration

¹⁹ Santa Clara County Department of Environmental Health Website, located online at http://www.unidocs.org/members/Santa_Clara_County_CUPA.html, accessed October 30, 2012

of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater.

The California Accidental Release Prevention Program Law (Cal ARP Program) (California Health and Safety Code Section 25531-25543.3) provides for consistency with Federal laws (i.e., the Emergency Preparedness and Community Right-to-Know Act and the Clean Air Act) regarding accidental chemical releases and allows local oversight of both the State and Federal programs.

Transportation of hazardous materials/waste is regulated by California Code of Regulations (CCR) Title 26, Toxics. The Federal Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing). The California Highway Patrol and the California Department of Transportation enforce Federal and State regulations and respond to hazardous materials transportation emergencies.

Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials.

The “Unified Hazardous Waste and Hazardous Materials Management Regulatory Program” (Program) was created in 1993 by California State Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs. The Program is implemented at the local government level by Certified Unified Program Agencies (CUPA).

Under the authority granted by the state, the Santa Clara County Hazardous Materials Compliance Division administers the following programs and implements the following regulations:

- Hazardous Waste Generator Program (California Health and Safety Code Chapter 6.5)
- Hazardous Waste Tiered Permitting (California Health and Safety Code Chapter 6.5)

- Underground Storage Tank (California Health and Safety Code Chapter 6.7)
- Aboveground Storage Tank SPCC Plan (California Health and Safety Code Chapter 6.67)
- Hazardous Materials Business Plans (California Health and Safety Code Chapter 6.95)
- California Accidental Release Prevention Program (California Health and Safety Code Chapter 6.95)

The HMCD is also responsible for the Leaking Underground Storage Tank Oversight program, which manages the cleanup of areas contaminated by UST releases. The County's Hazardous Materials Program also implements the Hazardous Materials Storage Ordinance (County Ordinance No. NS-517.31) and the Toxic Gas Ordinance (County Ordinance No. NS-517.44).

Local Regulations

Chapter 8 of the Saratoga Municipal Code regulates hazardous materials within the City. The purpose of Chapter 8 is to protect the health, life, resources, and property through the prevention and control of unauthorized discharges of hazardous materials. The City delegates its authority over the regulation of Hazardous Materials to the County of Santa Clara.

E. EMERGENCY PREPAREDNESS AND DISASTER PLANNING

Effective safety planning involves the development of regulations to prevent and/or mitigate hazards and the preparation of plans to respond to emergencies. While prevention and mitigation are the most effective and prudent methods to protect the public and property from imminent danger, the City must be prepared when disasters occur. The City has prepared an Emergency Operations Plan (maintained and administered by the Santa Clara County Fire Department), which is reviewed and updated every year. Updating the plan on schedule maintains the City's eligibility for FEMA funded programs.

The Saratoga Municipal Code asserts the obligation of the City to protect the life and property of Saratoga residents, and supports the policy of mutual aid and coordination with Santa Clara County. City expenditures are authorized for the protection and benefit of residents and their property. Furthermore, the City of Saratoga Emergency Operations Plan has been prepared to establish both proactive and reactive measures in the event of a declared emergency.

i. Emergency Operations Plan Purpose and Organization

The purpose of Saratoga’s Emergency Operations Plan is to create a framework for Saratoga response personnel who will make the continual planning process both very clear and relatively easy while identifying the hazards that exist in Saratoga. The Emergency Operations Plan also enhances the development of Local Hazard Mitigation Planning on an ongoing basis and addresses the needs of all people located in Saratoga. The primary hazards identified in the Emergency Operations Plan are included in Table 1 – Hazard Analysis Likelihood of Occurrence, below, according to their likelihood and severity:

Table 1 Hazard Analysis Likelihood of Occurrence						
Hazard	Likelihood			Severity		
	Infrequent	Sometimes	Frequent	Low	Moderate	High
Aviation Disaster	X			X	X	X
Civil Disturbance	X					
Earthquake M<5		X		X		
Earthquake M>5	X				X	X
Extreme Weather/Storm			X	X	X	
Floods		X		X	X	
Landslides	X			X	X	
HAZMAT	X				X	
Heat Wave	X	X		X	X	
Public Health Emergency	X			X	X	X
Terrorism	X			X	X	X
Transportation-Highway		X		X		
Wildfire/Forest Fire	X				X	

Source: Saratoga Emergency Operations Plan, 2009

The Emergency Operations Plan is organized into eight sections:

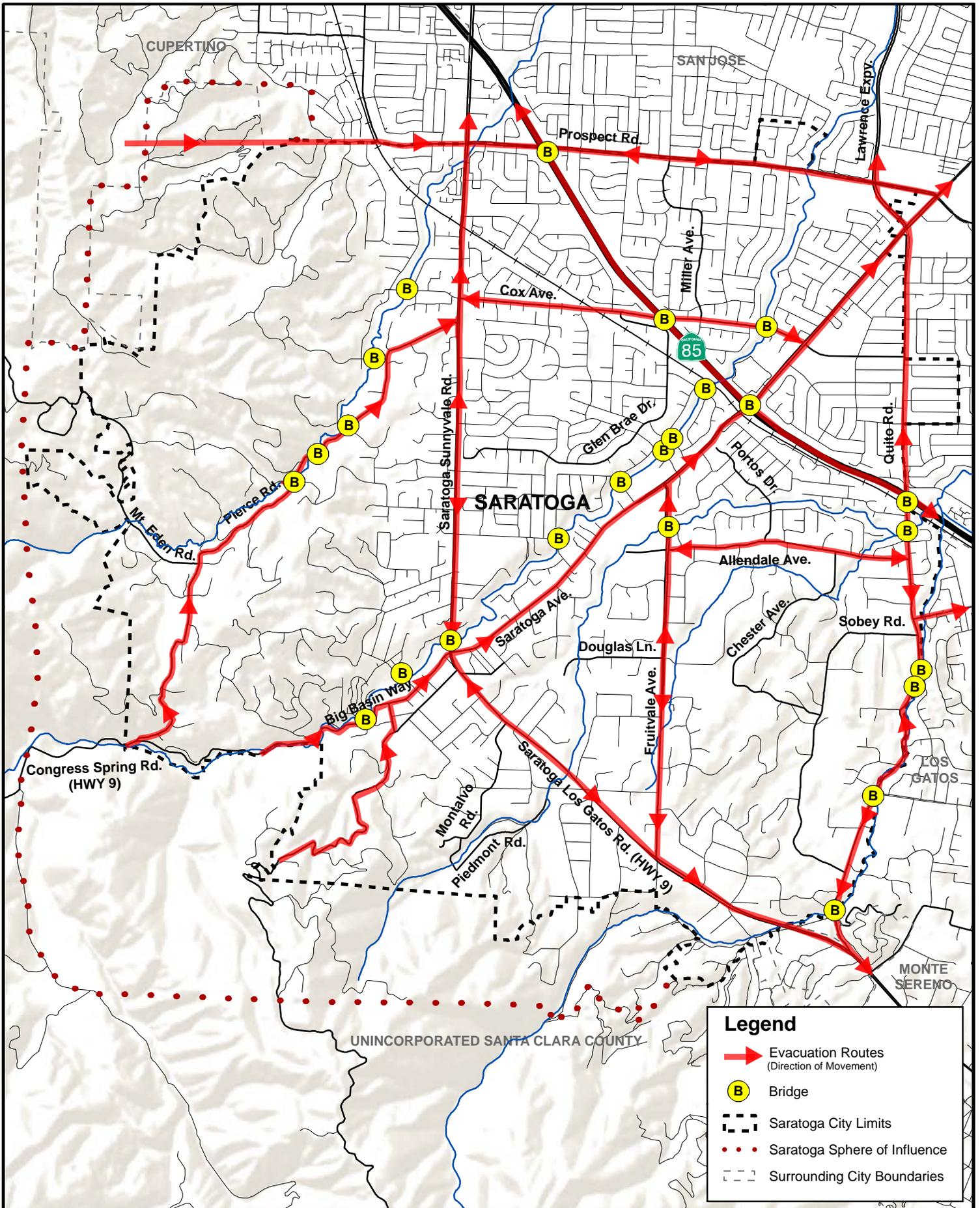
- I. Introduction**
- II. Hazard Assessment**
- III. Prevention/Mitigation**
- IV. Preparedness**
- V. Response**
- VI. Recovery**
- VII. Appendices**

Potential emergency situations are assessed and mitigation measures for those situations are discussed in the various sections of the Emergency Operations Plan . Hazard-Specific Actions are included to prevent potential hazardous situations and lessen the impacts of hazards should an emergency situation occur. For example, an earthquake is identified as a hazard. Earthquakes are impossible to prevent, but mitigation measures to lessen the impact of earthquakes can be implemented in advance of an earthquake, such as inspecting all structures for weaknesses and providing emergency preparedness training to City employees and volunteer responders. Applicable preventative measures are also listed for wildfire, flood, weather, public health, hazardous materials, and terrorism emergency situations. The Emergency Operations Plan includes measures that can be taken to prepare the community for emergencies, such as training, public awareness, records protection, adherence to various programs and policies (such as weed and brush abatement or adherence to setbacks from flood zones), appointing field personnel, cross-jurisdictional preparedness, and maintaining relations and communication with neighboring, State, and Federal Agencies. In the event of a disaster, the plan contains response checklists and detailed responsibilities for emergency personnel to follow depending on the level of the emergency or disaster situation. Recovery techniques and protocols are also discussed in the Emergency Operations Plan to restore all systems back to normal working order following a disaster or emergency.

ii. Emergency Evacuation Plan

An important emergency preparedness function within the City is the development of evacuation plans which readily and effectively relocate residents from hazardous areas to safer locations. An integral part of evacuation planning is the identification of evacuation routes and shelter spaces. Exhibit 8, Evacuation Routes, illustrates the routes of movement on local collector and arterial streets and the designated evacuation routes that should be followed in order to promote safe and efficient evacuation of residents out of the City.

This map shows that the majority of the City's evacuation routes are located in the area between Prospect Avenue and Saratoga-Los Gatos Road, and Saratoga-Sunnyvale Road and Quito Road, where the population is of a higher density than in the hillside areas. Depending on the nature of the disaster, some access roads in the hillside areas may be closed or impeded, creating the necessity for residents to evacuate from the area along substandard emergency access roads or by helicopter.



Legend

-  Evacuation Routes (Direction of Movement)
-  Bridge
-  Saratoga City Limits
-  Saratoga Sphere of Influence
-  Surrounding City Boundaries

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It is important to know the locations of places of assembly that can accommodate significant numbers of people. The American Red Cross establishes facility agreements with schools, churches, recreation halls and large facilities in order to take in evacuees and provide mass care, feeding, and sheltering. It also provides casework services for those who have suffered losses, and physical and mental health services for the victims of disasters.

Anticipated Red Cross emergency locations within Saratoga (shaded) and surrounding communities are listed in **Table 2 – American Red Cross Shelters**, below. In the event of a major disaster or emergency, if deemed safe for public use, these facilities would house residents as "primary places of assembly." Following an earthquake, all facilities will be inspected prior to being designated as a shelter or gathering location.

Table 2 American Red Cross Shelters			
Facility	Address	City	Zip Code
Prospect High School	18900 Prospect Avenue	Saratoga	95070
Redwood Middle School	13925 Fruitvale Avenue	Saratoga	95070
Saratoga Community Center	19655 Allendale Avenue	Saratoga	95070
Saratoga High School	20300 Herriman Avenue	Saratoga	95070
Southwest YMCA	13500 Quito Road	Saratoga	95070
West Valley College	14000 Fruitvale	Saratoga	95070
Campbell Middle School	295 Cherry Lane	Campbell	95008
Westmont High School	4805 Westmont Avenue	Campbell	95008
Cupertino High School	10100 Finch Avenue	Cupertino	95014
De Anza College	21250 Stevens Creek Boulevard	Cupertino	95014
Homestead High School	21370 Homestead Road	Cupertino	95014
Hyde Middle School	19325 Bollinger Avenue	Cupertino	95014
Kennedy Middle School	821 Bubb Road	Cupertino	95014
Monte Vista High School	21840 McClellan Road	Cupertino	95014
Quinlan Community Center	10185 N. Stelling Road	Cupertino	95014
Calvary Baptist Church	16330 Los Gatos Boulevard	Los Gatos	95032
Lakeside Elementary School	19621 Black Road	Los Gatos	95033
The Church of Jesus Christ of Latter-Day Saints	15955 Rose Avenue	Los Gatos	95030
Loma Prieta Community Center	23800 Summit Road	Los Gatos	95033
Loma Prieta School	23800 Summit Road	Los Gatos	95033
Los Gatos High School	20 High School Court	Los Gatos	95030
R.J. Fisher Middle School	19195 Fisher Avenue	Los Gatos	95032
Rolling Hills Middle School	1585 More Avenue	Los Gatos	95032
Source: Saratoga Emergency Operations Plan, 2009			

iii. Regulatory Framework

State Regulations

Through the California Emergency Services Act of 1970, the California Office of Emergency Service provides the basis for local emergency preparedness. The Office of Emergency Services is responsible for preparing the California State Emergency Plan and for coordinating and supporting emergency services conducted by local governments. The responsibility for immediate response to an emergency, such as fires, landslides, earthquakes or riots, rests with local government agencies and segments of the private sector, with support services provided by other jurisdictions and/or State and Federal agencies. In accordance with their normal operating procedures, the initial response to an emergency will be made by local Fire, Law Enforcement, Medical or Maintenance (Public Works) districts or departments.

Local Regulations

The City of Saratoga implements its Emergency Operations Plan, which provides an overview of prevention and operational concepts, identifies components of the City's emergency management organization within the Standardized Emergency Management System (SEMS) and by extension, the National Incident Management System (NIMS) and describes the overall responsibilities of the federal, state and county entities and the City for protecting life and property and assuring the overall wellbeing of the population.

III. GOALS, POLICIES AND IMPLEMENTATION PROGRAMS

A. CONTEXT FOR SAFETY ELEMENT POLICY

The development of policies within the Safety Element is based upon a broad understanding of the issues and hazards that affect the City of Saratoga. The City prides itself on its ability to provide a high level of service to its residents and collaborates with County Agencies in community education and outreach to create a safer environment. The following provides the policy context for developing the goals, policies, and implementation measures for the City of Saratoga Safety Element:

i. Land Instability Hazards

Given the close proximity to several active and potentially active faults and the steep topographic relief within the western and southern portions of the City, site-specific geologic review is necessary to evaluate geologic and seismic hazards that may affect developments within particular areas of the City. Many areas of the City are susceptible to unstable land conditions either from earthquake faults, steep topography, poor soil conditions, or any combination thereof. In response to this, the City requires geotechnical engineering reports for development within areas known for geologic or seismic hazards. In addition, issuance of grading permits for hillside development areas and critical uses such as hospitals and utilities require additional study and evaluation to further ensure public safety. The City may preclude development within hazard areas through the use of open space land use designations, where necessary.

ii. Flood Hazards

The City of Saratoga has three major drainages that traverse through the City, draining from south to north and ultimately emptying into the San Francisco Bay. These creeks are the San Tomas Aquino, Saratoga and Calabazas Creeks. In addition to these creeks, several smaller creeks tributary to the San Tomas Aquino and Calabazas creeks are also located within the City. These three drainages and several of their tributaries are located within the FEMA 100-year floodplain, which could impact properties adjacent to these drainages during a significant flooding event. In addition, the entire City is also located within the FEMA 500-year floodplain.

Along with flooding associated with weather related events, Saratoga Creek is also susceptible to flooding by dam inundation in association with the failure of Lake Ranch Reservoir located outside of the City's Sphere of Influence. Inundation is anticipated to stay within the Saratoga creek bed; however, several roadways that cross this drainage could be impacted by flood waters.

As a participant in FEMA's National Flood Insurance Program, the City has adopted a Floodplain Management Ordinance. Through this ordinance, General Plan policies and other regulations during the City's development review process, all new developments are required to mitigate potential flooding impacts. This, in conjunction with potential flood control improvements made by the City, will ensure that future impacts are reduced or minimized.

Furthermore, the City will work closely with the Santa Clara County Development Services office to implement regional improvements that benefit Saratoga as well as surrounding areas by improving regional flooding and drainage impacts.

iii. Fire Hazards

The City is currently served by the Santa Clara County Fire Department and Saratoga Fire Protection District. The major fire concern for the City is the proximity of existing developments to high fire hazard areas within the southern and western portions of the City. Effective management of these areas and implementation of proper development controls that reduce risk to fire hazards (wildland-urban interface [WUI] area) is an important component of this Element.

Working closely with the Fire Department, the City of Saratoga can emphasize the need for adequate training of firefighting personnel to address the changing needs of the community. As part of this effort, it will also be very important that the residents and businesses within the community understand their role in fire prevention and impact reduction activities that could save lives.

Preventive measures will continue to be an important part of fire protection in Saratoga, including conditions of development, fuel modification, and weed abatement activities/landscaping maintenance to deter the spread of wildland/urban interface fires. Other preventative measures include Fire Department review of site plans / development application, community education and outreach and code enforcement activities aimed at reducing potential hazards in the WUI areas. The primary preventative measure administered by the Saratoga Fire Protection District is the City's Early Warning Fire Alarm System that is required for most new residential construction. This system alerts the Fire Department as soon as a fire occurs, with the intention of reducing fire response time and potential damage to the structure and surrounding area.

Protecting Saratoga residents and businesses from the harmful effects of hazardous materials and waste is a high priority. Although the City does not have a significant amount of hazardous materials/ waste generators or businesses that store these materials, there is still some risk associated with the release of hazardous materials into the environment. Through the

promotion of effective handling, use, treatment, and disposal of hazardous materials and waste, as well as the education of Saratoga residents on these issues, the City is committed to maintaining a safe community for existing and future residents and businesses. The entitlement review/ approval process and adherence to current and future State and Federal regulations will also help ensure that new developments within the City incorporate the necessary protections and improvements to reduce the risk and exposure of hazardous materials release and minimize impacts of a release. Prevention of future releases is of great importance due to the City's reliance on groundwater resources for drinking water.

iv. Emergency Preparedness

The City of Saratoga desires a high level of emergency preparedness and response services to its residents. Working closely with the Santa Clara County Office of Emergency Services, Fire Department and Sheriff's Office, the City strives to promote safer development of the hillside areas and facilitate effective notification and response to emergency situations through their development review processes. Understanding that many aspects of the Fire Department's and Sheriff's Office operations are beyond City control, ongoing collaboration with these agencies on existing and future training and equipment needs will be a priority.

The Emergency Operations Plan is the master document that organizes emergency preparedness and response efforts in Saratoga. The Emergency Operations Plan provides a framework for coordination with other agencies at the regional and state levels. Each department involved in implementation of the Emergency Operations Plan has the responsibility to internalize the plan in its own operations, as well as keep the plan up-to-date. Dedicated staff support from the Santa Clara County Fire Department has assisted the City in ensuring regular update, maintenance, and implementation of the Emergency Operations Plan.

Public awareness and education is a critical part of emergency preparedness. An educated public will know how to prevent injury and property damage during and after emergency events, and also know how to find and offer help to their neighbors. Through collaboration with the Santa Clara County Office of Emergency Services and promotion of educational programs like Community Emergency Response Team (CERT), community members receive the training needed to be self-sufficient during a major emergency. In addition to this, the City and the Santa Clara County Fire Department work to disseminate basic emergency preparedness information to the residents and businesses of Saratoga.

B. GOALS, POLICIES, AND IMPLEMENTATION MEASURES

The following goals, policies, and implementation measures have been developed to guide development within the City of Saratoga. The purpose of this information is to establish guidance framework that is consistent with the City's vision, meet the community's needs and effectively addresses the potential hazards that could impact the City. In addition, the City of Saratoga Annex to the Santa Clara County Local Hazard Mitigation Plan (LHMP) is hereby incorporated into this Safety Element by reference. The LHMP, last adopted by the City of Saratoga on February 15, 2012, is required to be updated every five years to maintain eligibility for Hazard Mitigation Assistance grant programs administered by FEMA pursuant to the Disaster Mitigation Act of 2000. The LHMP contains a vulnerability analysis highlighting specific facilities at risk to natural hazards and outlines strategies for reducing risk to the identified hazards.

i. Land Instability Hazards

Goal SAF-1: Protect residents from injuries and minimize property damage resulting from land instability and geologic hazards.

Policy SAF-1.1: No development shall be permitted in geologic hazard areas without individual site-specific geotechnical investigations to determine depth of bedrock, soil stability, location of rift zones and other localized geotechnical problems.

Implementation Measure SAF-1.1a: As part of the development review process, a qualified Geotechnical Consultant will review proposals involving sites having potential land instability or geologic hazards and will make recommendations accordingly.

Policy SAF-1.2: Development in areas subject to natural hazards shall be limited and shall be designed to protect the environment, inhabitants and general public. In areas that have been proven to be unsafe, development of structures for human habitation shall be prohibited to the maximum extent permitted by law.

Policy SAF-1.3: Proposals for General Plan amendments, zone changes, use permits, variances, building site approvals, and all land development applications subject to environmental assessment according to CEQA guidelines shall be reviewed for hazardous conditions utilizing the most current data.

Implementation Measure SAF-1.3a: Mitigation measures to eliminate potential geologic hazards identified during the environmental review process will be required as conditions of development.

ii. Seismic Hazards

Goal SAF-2: Protect residents of the City and surrounding areas from seismically induced hazards.

Policy SAF-2.1: In order to mitigate the danger of earthquake damage, the City shall enforce strict earthquake construction and soil-engineering standards, selecting the most stable areas for development and requiring developers to compensate for soil instabilities through approved engineering and construction techniques.

Policy SAF-2.2: Critical structures and systems vital to the public health and safety (water, power and waste disposals systems, police and fire stations and communication facilities) shall be designed to mitigate any seismic or geologic hazards associated with their sites.

Implementation Measure SAF-2.2a: When made available, the City should update the Safety Element to incorporate the latest mapping produced by the United States Geological Survey (USGS) and California Geological Survey (i.e. Alquist-Priolo Special Study Zones, Seismic Hazards Mapping Reports, etc.).

Policy SAF-2.3: The City should comply with State statutes regarding the identification and retrofit of non-reinforced masonry structures.

iii. Flood Hazards

Goal SAF-3: Reduce damage to public and private property resulting from flooding and flood induced hazards.

Policy SAF-3.1: All proposed projects adjacent to floodways and floodplains that could affect Water District right-of-way, should be referred to the District for review and comments.

Policy SAF-3.2: The City shall continue to participate in the National Flood Insurance Program.

Implementation Measure SAF-3.2a: The City will maintain and enforce a Floodplain Management Ordinance, based on the national Model Floodplain Management Ordinance to satisfy the requirements of the National Flood Insurance Program.

Policy SAF-3.3: The City shall continue to enforce its existing regulations pertaining to impervious coverage to reduce potential hazards from excessive run-off.

Implementation Measure SAF-3.3a: Implement the City's impervious coverage regulations by continuation of existing zoning regulations as contained in the City Code.

iv. Fire Hazards

Goal SAF-4: Reduce the danger of property damage and loss of life due to urban and wild fires.

Policy SAF-4.1: The City shall require the installation of an early warning fire alarm system in each of the following cases:

- a. All new single-family dwellings and any existing single-family dwellings that are expanded by fifty percent or more in floor area, where such new or expanded dwellings are located within designated hazardous fire area.
- b. All new single-family dwellings having a gross floor area in excess of 5,000 square feet.
- c. Any existing single family dwelling that is expanded by fifty percent or more in floor area which, after such expansion, will exceed 5,000 square feet in gross floor area.
- d. All new multi-family dwellings and other new structures having multiple sleeping units, such as hotels, motels, apartments, condominium or other community housing projects, townhouses and nursing homes.
- e. Any existing multi-family dwelling or other existing structure having multiple sleeping units as described in Paragraph (d) above, which is expanded by fifty percent or more in gross area.

Implementation Measure SAF-4.1a: Implement through continuation of existing subdivision, zoning and building regulations as contained in the City Code.

Policy SAF-4.2: The Fire Chief, having jurisdiction, should be authorized to require the installation of an early warning fire alarm system in any new commercial structure or community facility, or expansion of an existing commercial structure by fifty percent or more in gross floor area, whenever the Fire Chief deems such requirement to be

necessary or appropriate on the basis of facts and circumstances in each individual case.

Implementation Measure SAF-4.2a: Implement through continuation of existing subdivision, zoning and building regulations as contained in the City Code.

Policy SAF-4.3: The City shall encourage all property owners to install an early warning fire alarm system on a voluntary basis where such owners are not otherwise required to do so.

Implementation Measure SAF-4.3a: Implement by continuation of existing provision in the building regulations allowing voluntary installation of the system and publicize the availability of the system for any property located within the City.

Policy SAF-4.4: The City shall continue to enforce existing regulations pertaining to hazardous fire areas (wildland-urban interface), fire retardant construction and landscaping (fuel modification).

Implementation Measure SAF-4.4a: Periodically review subdivision, zoning and building regulations that pertain to hazardous fire areas to determine if significant changes are required.

Implementation Measure SAF-4.4b: Update the City's Wildland-Urban Interface map and Fire Hazard Areas Map, when new data and information is made available by local, State, and Federal agencies.

Policy SAF-4.5: The City shall coordinate with the Santa Clara County Fire Department on the need for additional fire prevention regulations for the built up, populated areas of the City.

Implementation Measure SAF-4.5a: The City, in cooperation with the County of Santa Clara Fire Department, will review and modify, as necessary, existing building regulations to require Type A & B fire retardant roof materials in the densely populated flatlands of the City.

v. Emergency Preparedness

Goal SAF-5: Develop and maintain an emergency preparedness plan which will provide effective response in the event of a natural or manmade disaster.

Policy SAF-5.1: The City shall review and update on a regular basis its plan for emergency response and preparedness. This plan shall use local resources and manpower to provide maximum benefit and protection for the City's residents.

Implementation Measure SAF-5.1a: Review and update annually the City's Emergency Operations Plan, modifying the plan if significant changes are required. Sections of the plan which are incomplete will be completed in a timely manner.

Policy SAF-5.2: The City shall coordinate its Emergency Operations Plan with local jurisdictions and regional agencies to anticipate cumulative impacts during times of disaster.

Implementation Measure SAF-5.2a: Coordinate with Santa Clara County Office of Emergency Services to review the County and adjacent jurisdictions' plans and resolve areas of potential conflict.

Implementation Measure SAF-5.2b: On an annual basis, the City will review the Santa Clara County Multi-Jurisdictional Local Hazard Mitigation Plan and the City's Local Hazard Mitigation Plan Annex to ensure that identified mitigation actions are being incorporated into upcoming City sponsored projects, where appropriate.

Policy SAF-5.3: The City shall encourage all citizens to take responsibility for their own safety in the event of a disaster.

Implementation Measure SAF-5.3a: The City shall publicize and participate in disaster preparedness exercises and distribute emergency planning information to the citizens of Saratoga.

Implementation Measure SAF-5.3b: The City shall coordinate with Santa Clara County Office of Emergency Services on potential disaster preparedness training opportunities (i.e. CERT, Red Cross, etc...) for Saratoga residents.

REFERENCES

- i. City of Saratoga Emergency Operations Plan, July 2009.
- ii. County of Santa Clara Multi-Jurisdictional Local Hazard Mitigation Plan, 2011.
- iii. City of Saratoga Local Hazard Mitigation Plan Annex, 2012.
- iv. National Flood Insurance Program, Flood Insurance Rate Maps Panel 219 of 830, Effective May 18, 2009.
- v. Santa Clara County Fire Department Strategic Plan January 2010 to December 2014.
- vi. Taming Natural Disasters: Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area, 2010 Update, Association of Bay Area Governments.
- vii. County of Santa Clara Health and Safety Element of the General Plan, 1994
- viii. Seismic Hazard Maps for the Castle Rock Ridge Quadrangle (August 11, 2005) and Cupertino Quadrangle (September 23, 2002), California Geological Survey.
- ix. Alquist-Priolo Special Studies Zones for the Castle Rock Ridge Quadrangle (July 1, 1974) and Cupertino Quadrangle (July 1, 1974), California Geological Survey.
- x. Liquefaction Hazard Maps for Three Earthquake Scenario for the Communities of San Jose, Campbell, Cupertino, Los Altos, Los Gatos, Milpitas, Mountain View, Palo Alto, Santa Clara, Saratoga, and Sunnvale, Northern Santa Clara County, California. United States Geological Survey, Open File Report 2008-1270.

Websites

Santa Clara County Department of Environmental Health:

<http://www.sccgov.org/sites/deh/Hazardous%20Materials%20Compliance%20Division/Hazardous%20Materials%20Program%20Home/Pages/Hazardous-Materials-Program-Home-Page.aspx>

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APPENDICES

Appendix A – Glossary

Appendix B – Adopted Local Hazard Mitigation Plan

Appendix C – Geologic and Seismic Hazards Constraints Mapping (Awaiting completion by the City's Consultant)

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Appendix A – Glossary

Active Fault Zone: Fault area that has experienced displacement during the past 11,000 years, indicating that further movement might occur.

Floodplain: The area bordering a stream that becomes flooded when the stream overflows its channel.

Lifelines: Public facilities and services that the metropolitan populations are dependent upon, such as transportation and communication networks, power, gas and water lines.

Mercalli Scale: A scale of earthquake intensity ranging from I to XII. Based on observable effects at a given place.

Potentially Active Fault Zone: Fault area showing evidence of surface displacement during Quaternary time or the last 2 million years.

Rift Zone: A large fault where lateral movement occurs.

Richter Scale: A scale of earthquake magnitude based on the logarithm (base 10) of the amplitudes of the deflections created by earthquake waves and recorded by a seismograph.

Rural Residential: Low density single-family residential development and agricultural uses with compatible conditional uses. Local jurisdiction usually provides a minimal level of service.

Seismic: Pertaining to an earthquake or earth vibration, including those that are artificially induced.

Sphere of Influence: That area outside the City's incorporated boundary, but designated by the Santa Clara County Local Agency Formation Commission as the unincorporated area most likely to be influenced and annexed by the City in the future.

Tilt-Up Structure: Concrete walls are poured on the ground, allowed to harden, and then tilted into place.

Urban Residential: Medium to high density single – and multi-family residential development and compatible conditional uses. Local jurisdiction usually provides full array of urban services.

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Appendix B – Adopted Local Hazard Mitigation Plan

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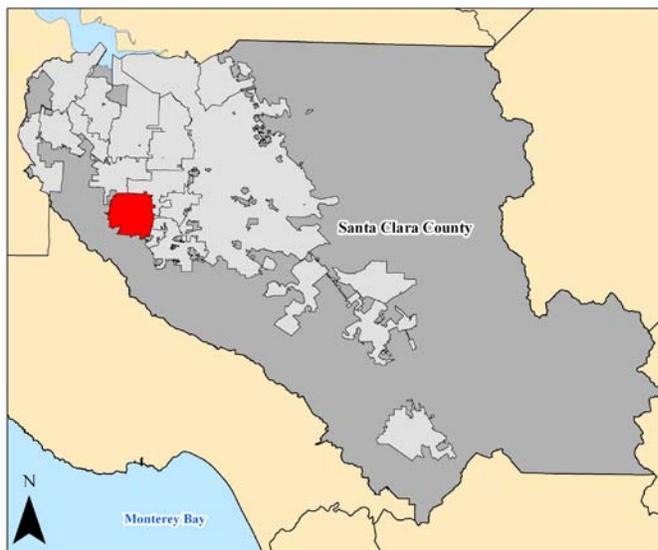
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SECTION 21 CITY OF SARATOGA

21.1 INTRODUCTION

This City of Saratoga Annex serves as an annex to the Santa Clara County Local Hazard Mitigation Plan which is an annex to the 2010 Association of Bay Area Local Hazard Mitigation Plan, *Taming Natural Disasters*. Pursuant to the Disaster Mitigation Act of 2000, the City Council adopted this annex on February 15, 2012.

This annex is an update to the City's annex to the 2005 Association of Bay Area Local Hazard Mitigation Plan, *Taming Natural Disasters*, as adopted on April 4, 2007.



The City of Saratoga is a small-sized city, located in the western region of Santa Clara County, California. The City has a population of 29,843 people, based on the 2000 census. For the Fiscal Year 2010/2011, the City's total general fund budget is approximately \$15 million. The City employs 54 full time equivalents with additional temporary and seasonal workers. Law enforcement services are provided under contract with the Santa Clara County Sheriff's Office, and fire services are provided by the combined Santa Clara County Fire Department and the Saratoga Fire Protection District.

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RESOLUTION NO. 07-020

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SARATOGA
APPROVING THE ABAG REPORT "TAMING NATURAL DISASTERS"
AS THE CITY OF SARATOGA'S LOCAL HAZARD MITIGATION PLAN**

WHEREAS, the Bay Area is subject to various earthquake-related hazards such as ground shaking, liquefaction, landsliding, fault surface rupture, and tsunamis; and

WHEREAS, the Bay Area is subject to various weather-related hazards including wildfires, floods, and landslides; and

WHEREAS, the City of Saratoga recognizes that disasters do not recognize city, county, or special district boundaries; and

WHEREAS, the City of Saratoga seeks to maintain and enhance both a disaster-resistant City and region by reducing the potential loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters; and

WHEREAS, the City is committed to increasing the disaster resistance of the infrastructure, health, housing, economy, government services, education, environment, and land use systems in the City, as well as in the Bay Area as a whole; and

WHEREAS, the federal Disaster Mitigation Act of 2000 requires all cities, counties, and special districts to have adopted a Local Hazard Mitigation Plan to receive disaster mitigation funding from FEMA; and

WHEREAS, ABAG has approved and adopted the ABAG report "*Taming Natural Disasters*" as the multi-jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area;

NOW, THEREFORE, BE IT RESOLVED that the City of Saratoga adopts, and adapts with its local annex, this multi-jurisdictional plan as its Local Hazard Mitigation Plan.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City of Saratoga commits to continuing to take those actions and initiating further actions, as appropriate, as identified in the City Annex of that multi-jurisdictional Local Hazard Mitigation Plan.

The above and foregoing resolution was approved and adopted by the City Council of the City of Saratoga on the 4th day of April 2007 by the following vote:

AYES: Councilmembers Jill Hunter, Kathleen King, Chuck Page,
Vice Mayor Ann Waltonsmith, Mayor Aileen Kao

NOES: None

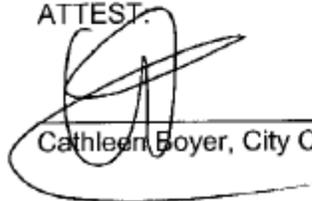
ABSTAIN: None

ABSENT: None



Aileen Kao, Mayor

ATTEST:



Cathleen Boyer, City Clerk

RESOLUTION 12-010

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SARATOGA
APPROVING THE CITY OF SARATOGA ANNEX TO THE SANTA CLARA COUNTY
ANNEX TO THE 2010 ABAG REPORT "TAMING NATURAL DISASTERS" AS THE
CITY OF SARATOGA'S LOCAL HAZARD MITIGATION PLAN**

WHEREAS, the Bay Area is subject to various earthquake-related hazards such as ground shaking, liquefaction, landsliding, fault surface rupture, and tsunamis; and

WHEREAS, the Bay Area is subject to various weather-related hazards including wildfires, floods, and landslides; and

WHEREAS, the City of Saratoga recognizes that disasters do not recognize city, county, or special district boundaries; and

WHEREAS, the City seeks to maintain and enhance both a disaster-resistant City and region by reducing the potential loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters; and

WHEREAS, the City of Saratoga is committed to increasing the disaster resistance of the infrastructure, health, housing, economy, government services, education, environment, and land use systems in the City, as well as in the Bay Area as a whole; and

WHEREAS, the federal Disaster Mitigation Act of 2000 requires all cities, counties, and special districts to have adopted a Local Hazard Mitigation Plan to receive disaster mitigation funding from FEMA; and

WHEREAS, ABAG has approved and adopted the ABAG report "Taming Natural Disasters" as the multi-jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area;

NOW, THEREFORE, BE IT RESOLVED that the City adopts, and adopts with its local annex, this multi-jurisdictional plan as its Local Hazard Mitigation Plan.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City commits to continuing to take those actions and initiating further actions, as appropriate, as identified in the City of Saratoga Annex to the County of Santa Clara Annex of that multi-jurisdictional Local Hazard Mitigation Plan and will consider including the mitigation strategies as the Implementation Appendix of the Safety Element of its General Plan during the Safety Element update process now underway and expected to be completed by December 2014.

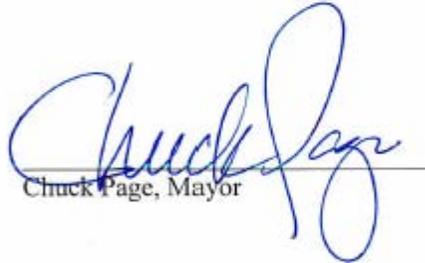
The above and foregoing resolution was passed and adopted at a regular meeting of the Saratoga City Council held on the 15th day of February 2012 by the following vote:

AYES: Council Member Manny Cappello, Emily Lo, Howard Miller, Vice Mayor Jill Hunter, Mayor Chuck Page

NOES: None

ABSENT: None

ABSTAIN: None



Chuck Page, Mayor

ATTEST:


Crystal Morrow, City Clerk

DATE: 2/23/2012

21.2 INTERNAL PLANNING PROCESS

The City of Saratoga participated in the regional planning process coordinated by ABAG and the local planning process coordinated by Santa Clara County OES as noted in Section 3 of this plan. The City of Saratoga participated in one City/County workshop sponsored by ABAG, as it was most relevant to the City's size and operations.

For more information on meetings held by ABAG and for rosters of attendees, please see Appendix A and H in the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan 2010 (MJ-LHMP). In addition, the City of Saratoga has provided written and oral comments on the multi-jurisdictional plan and provided information on critical facilities to ABAG.

Barbara Powell, Assistant City Manager, served as the City's representative and lead for completing this annex. Supported by Jim Yoke, Emergency Services Coordinator, the City was represented at Local Planning Team meetings #1, #2, and #3. Barbara and Jim performed internal reviews and collaboration in order to provide all of the required information for development of this annex.

Contact information: bpowell@saratoga.ca.us, 408.868.1215

Key staff met to identify and prioritize mitigation strategies appropriate for the City. Staff members involved in these meetings included the Community Development Director, Building Official, Public Works Director and Assistant City Manager. Representatives from the Santa Clara County Sheriff's Office, Santa Clara County Fire Department and Saratoga Fire Protection District were also present.

The City of Saratoga's internal planning team included the following individuals:

- Barbara Powell, Assistant City Manager
- Jim Yoke, Emergency Services Coordinator
- John Cherbone, Public Works Director
- John Livingstone, Community Development Director
- Brad Lind, Building Official

Public Outreach

The City provided the opportunity for the public to comment on the draft mitigation strategies selected by City staff at the City Council meeting on November 4, 2009. The meeting is streamed live on the City of Saratoga website and the draft mitigation strategies were available on the City website. No public comments were received from either the meeting or the internet posting. A copy of the meeting minutes are included in Saratoga Attachment 1: Outreach Materials.

The City Council will adopt the plan in a public meeting via an official Resolution upon approval by FEMA. During the next update of the Seismic Safety and Safety Element of the City of Saratoga's General Plan the relevant mitigation strategies will be incorporated as an implementation appendix.

The City of Saratoga notified residents and businesses of the hazard mitigation planning process by posting an announcement regarding the public opportunity to respond to the online survey discussed in Section 3.2.6 in the County Annex. A copy of the survey is included in County Attachment 7: Survey Outreach Materials, found in Section 9.7. The following media was utilized:

- City Website (<http://www.saratoga.ca.us/>)

Copies of the City’s outreach materials are included in Section 21.7, Saratoga Attachment 1: Outreach Materials.

Survey Results

On November 1, 2010, the Local Planning Team released an online survey to solicit public input regarding concerns for hazard risk. The Local Planning Team also used this survey to gauge the level of public preparedness for emergencies. The survey responses received from the City of Saratoga residents are summarized below:

1. 28 out of 541 survey respondents were from the City of Saratoga.
2. Respondents were asked which five hazards, out of the 31 hazards the LPT identified, are of most concern to their neighborhood or home. Below are responses from the City of Saratoga (in order of most responses):

Table 21-1: Hazards of Most Concern

Hazard	Number of Responses
Infrastructure: Water System Disruption (no potable water)	19
Infrastructure: Electrical System Disruption (no power)	18
Earthquake: Ground Shaking	17
Infrastructure: Wastewater System Disruption (sewer backup)	12
Infrastructure: Telecommunication System Disruption (no phone / cell service)	10
Wildfire	10
Earthquake: Surface Rupture	9
Infrastructure: Energy System Disruption (no gas)	8
Earthquake: Liquefaction	6
Disease and Outbreak	5
Infrastructure: Transportation Disruption (blocked roads / failed bridges)	5
Drought	4
Additional Hazard *	4
Earthquake: Landslides	2

Hazard	Number of Responses
Hazardous Materials Spills (chemical/biological)	2
Landslide and Debris flow	2
Agricultural Pests and Diseases	1
Dam Failure	1
Expansive Soils	1
Flood	1
Heat (extreme heat)	1
Land Subsidence (soil compaction due to subsurface water removal)	1
Bay Area Silting	0
Delta Levee Failure	0
Freeze	0
Hailstorm	0
Solar Storm	0
Thunder/Lightning Storms	0
Tornado	0
Tsunami	0
Volcano	0
Wind (high winds)	0

* Respondents noted the following additional hazards: bomb threat, air pollution, and electromagnetic pulse attack

3. Respondents were asked if a severe hazard event occurred today, such that all services were cut off from their home and they were unable to leave or access a store for 72 hours, which items they would have readily available. Below is a summary of responses from the City of Saratoga respondents:

Table 21-2: Items Readily Available to Respondents

Item that is Readily Available	Responses
Flashlight (with batteries)	28
Blanket(s)	27
First Aid Kit	24
Canned / Non-perishable Foods (ready to eat)	21
Portable AM/FM Radio (solar powered, hand crank, or batteries)	21
Potable Water (3 gallons per person)	20
Extra Medications	16
Cash	14
Handheld "Walkie-Talkie" Radios (with batteries)	12

Item that is Readily Available	Responses
Important Family Photos/Documentation in a water and fire proof container	8
What else is in your emergency kit? *	7

* Respondents noted the following additional items in their emergency kits: stove, water filter, emergency rescue equipment, HAM radio, tent, bedding, tarps, lanterns, medical supplies, pet food, water purifying tablets, clothing, fire wood, camping equipment, fire extinguisher, and tools

4. Respondents were asked if they were familiar with the special needs of their neighbors in the event of a disaster situation.

- 18, or **64.3%** of respondents, answered that they **are not** familiar with the special needs of their neighbors.
- 10, or **35.7%** of respondents, answered that they **are** familiar with the special needs of their neighbors.

5. Respondents were asked if they are trained members of their Community Emergency Response Team (CERT).

- 16, or **61.5%** of respondents, indicated that they **are part of CERT**.
- 3, or **11.5%** of respondents, indicated that they are not part of CERT, but **would like to learn more about CERT**.
- 7, or **26.9%** of respondents, indicated that they are not part of CERT and **are not interested** in being a trained CERT member.
- 2 respondents skipped this question.

Respondents were asked to share why they are a trained CERT member or why they are not part of CERT. The received responses are listed below:

- Going to attend CERT academy starting in February 2011. I am the co-coordinator of Saratoga MRC now.
- I felt it was important to know and prepare for disaster, living in an area where it could strike anytime
- My husband is trained through his employment and we have offered to be more involved in our neighborhood.
- I wanted to help my family, then neighbors in the event of an earthquake. I was an RN in the ER.
- I want to be able to help out our neighborhood and the community if disaster strikes.
- I initially took the training to help my family. Now, in addition, I want to help my neighbors in the event of an emergency.
- I have two small kids and no extra time.
- Was in CERT, but left because I wasn't happy about the way it was being run.

6. Respondents were asked what is the most important thing local government can do to help communities be more prepared for a disaster. The following summarizes the 24 responses received:

- **Citizen/City training and education**
- **Seismic warning systems**
- **Have each community start a local food bank**
- **Raise awareness about CERT**
- **Community outreach describing disaster preparedness**
- **Ensure disaster communication systems and warnings**
- **Help residents purchase disaster preparedness kits/supplies**
- **Maintain road infrastructure**

7. Respondents were asked if they live in an apartment building or home with a living space above a garage or parking area.

- 25, or **89.3%** of respondents indicated that they **do not** live in an apartment or home with living space above a garage or parking area.
- 3, or **10.7%** of respondents, indicated that they **do** live in an apartment building or home with living space above a garage or parking area.

Those respondents who indicated that they do live in an apartment building or home with living space above the garage or parking area were asked to describe their level of concern for the building to collapse in a large earthquake event. 2 respondents indicated “Moderate Concern”.

8. Respondents who are homeowners were asked if they have adequate homeowners insurance to cover the hazards that could impact their home. Below is a summary of responses:

Table 21-3: Adequate Homeowners Insurance

Answer	Responses
Yes, my insurance coverage should be adequate	20
No, I don't believe my insurance coverage would be adequate for a major disaster	6
Unsure	0
I do not have an insurance policy	0
Not applicable, I rent my current residence	2

9. Respondents were asked if they have earthquake insurance. Below is a summary of responses:

Table 21-4: Earthquake Insurance

Answer	Responses
Yes, I own my home and have earthquake insurance.	7
Yes, I rent my home and have earthquake insurance.	0

Answer	Responses
No, but I am interested in reviewing earthquake insurance options.	1
No, earthquake insurance is too expensive.	17
No, I do not need earthquake insurance.	2

10. Respondents were asked if they have flood insurance. Below is a summary of responses:

Table 21-5: Flood Insurance

Answer	Responses
Yes, I own my home and have flood insurance.	4
Yes, I rent my home and have flood insurance.	0
No, but I am interested in reviewing flood insurance options.	4
No, I do not need flood insurance	20

11. Respondents indicated the following as additional insurance listed for their home or property:

- **Fire**
- **Homeowners**
- **Umbrella**
- **Liability**
- **Property**

12. Respondents were asked what they are doing to their property or within their home to reduce future damage from the hazards identified above. Below is a summary of responses:

Table 21-6: Property Changes to Reduce Future Damage from Hazards

Property Mitigation	Responses
Roof retrofit using fire resistant material	10
Seismic retrofit of the structure and/or foundation	8
Defensible space landscaping (clear vegetation around house to reduce wildfire risk)	8
Installed backflow prevention device(s)	6
Strengthened openings to reduce high hazard wind risk	3
Other *	2
House elevation or first floor modification to prevent flood damage	1

*The responses to “Other” were: “Secure fall over hazards, put child latches on cupboards” and “New home”

13. Respondents were asked if they work in Santa Clara County.

- 21, or **75%** of respondents, indicated that they **do** work in Santa Clara County.
- 7, or **25%** of respondents, indicated that they **do not** work in Santa Clara County.

14. Respondents were asked if their place of work is in an area susceptible to natural hazards. Below is a list of natural hazards and responses from survey respondents:

Table 21-7: Place of Work in Hazard Areas

Natural Hazard	Response
Earthquake fault zone	12
I don't know	6
Other *	5
Wildland urban interface (wildfire risk area)	3
High-risk flood zone	1
Liquefaction zone	1
Landslide risk area	0

* The responses to “Other” were: “Retired” and “There is a power relay station next door. Also, we are near the airport.”

15. Respondents were asked if their employer has a plan for disaster recovery in place.

- 11, or **52.4%** of respondents, **indicated that their employer does have a disaster recovery plan in place.**
- 4, or **19%** of the respondents, **indicated that their employer does not have a disaster recovery plan in place.**
- 6 respondents were **unsure** if their employer has a disaster recovery plan in place.
- 7 respondents skipped this question.

16. Respondents were asked if their employer has a workforce communications plan to implement following a disaster so they may contact their employees.

- 12, or **57.1%** of respondents indicated that their **employer does** have a workforce communications plan.
- 5, or **23.8%** of respondents indicated that their **employer does not** have a workforce communications plan.
- 4, or **19%** of respondents indicated that they are **unsure** if their employer has a workforce communications plan.
- 7 respondents skipped this question.

17. Respondents were asked to list any studies that they are aware of being conducted within their community or the county regarding the risk to future hazard events. There were no responses to this question.

18. Respondents were asked what recommendations they have for Santa Clara County and the incorporated cities to improve identification, prioritization, and implementation of actions intended to reduce future damage and increase resiliency. The following recommendations were received:

- Retrofit infrastructure
- Improve communications during a disaster
- Put power, cable, and phone lines underground
- Come up with an evacuation plan so the highways are not clogged

19. Respondents were asked to recommend any companies or local associations that should be involved in the Santa Clara County hazard mitigation planning process. The recommended organizations are listed below and were given the opportunity to review the draft plan as noted in the following section.

- Santa Clara County Health Department
- Kaiser Santa Clara and Kaiser San Jose

20. Respondents were asked if they would like to review and comment on a draft of their jurisdictions annex to the Multi-Jurisdictional Multi-Hazard Mitigation Plan.

- 9, or **37.5%** of respondents **said they would** like to review and comment on the draft plan.
- 15, or **62.5%** of respondents **said they would not** like to review and comment on the plan draft.
- 4 respondents skipped this question.

Seven respondents who said they would like to review and comment on the draft plan included their contact information and were given the opportunity to review the draft plan as noted in the following section.

21. Respondents were asked to provide any additional comments/suggestions/questions. The responses are summarized below:

- **We should plan for an Electromagnetic Pulse attack. See, http://www.onesecondafter.com/pb/wp_d10e87d9/wp_d10e87d9.html.**

Review Opportunities

A review draft of this plan was submitted to Cal EMA on April 11, 2011 and subsequently forwarded to FEMA for review and comment regarding compliance with the Disaster Mitigation Act of 2000. During this time the review draft was available for public review on the websites of the Santa Clara County Office of Emergency Services and the Association of Bay Area Governments. Additionally, the City posted a notification on the City's website regarding the availability of the plan for public review. The review draft was emailed to members of the public who expressed interest in their online survey responses. No comments were received on the review draft.

Copies of the website posting and email notification are included in Section 21.7, Saratoga Attachment 1: Outreach Materials.

21.3 CAPABILITY ASSESSMENT

21.3.1 Mitigation Progress

21.3.1.1 Strategy Ranking

The City of Saratoga participated in ABAG’s revision of the regional strategies for development of this annex. Appendix G of Taming Natural Hazards presents a summary list of mitigation strategies with regional priorities and the hazards mitigated.

The City ranked those strategies in a spreadsheet provided by ABAG using the following scale:

- Existing Program
- Existing Program, Underfunded
- Very High – Unofficial Program – Becomes Official on Plan Adoption, No Funding Needed
- High – Actively Looking for Funding
- Moderate
- Under Study
- Not Applicable, Not Appropriate, or Not Cost Effective
- Not Yet Considered

Results of this ranking may be viewed online at <http://www.abag.ca.gov/bayarea/eqmaps/mitigation/strategy.html>. A summary of these rankings is presented in Saratoga Attachment 2: Saratoga Strategies 2010, in Section 20.7.

The countywide Local Planning Team reviewed the priorities as ranked by the participating Santa Clara County jurisdictions to determine the operational area goals and objectives. The City of Saratoga’s primary objectives are to minimize risk to earthquake, wildfire, and flood. New mitigation actions the City of Saratoga has identified are discussed in Section 21.5.

21.3.1.2 Evaluation of Progress from 2005 Plan

Section	Sub-section	Mitigation
INFR-a-Multihazard	8) Pre-position emergency power generation capacity (or have rental/lease agreements for these generators) in critical buildings of cities, counties, and special districts to maintain continuity of government and services.	The City purchased and installed two emergency generators for buildings that did not previously have back-up power.
INFR –d – Flooding	5) Pursue funding for the design and construction of storm drainage	In fiscal year 2010/11, the Santa Clara

Section	Sub-section	Mitigation
	projects to protect vulnerable properties, including property acquisitions, upstream storage such as detention basins, and channel widening with the associated right-of-way acquisitions, relocations, and environmental mitigations	Valley Water District is undertaking a project to prevent flooding in the Calabazas Creek area, which will protect homes, business and schools in parts of Saratoga.
INFR-g- Public Education	5) Facilitate and/or coordinate the distribution of materials that are prepared by others, such as by placing materials in city or utility newsletters, or on community access channels as appropriate	In fiscal year 2009/10, the City of Saratoga implemented a new website with a “news” feature. We have regularly been posting public education materials and notices on the website.
HEAL – b – Ancillary Health- Related Facilities GOVT – c – Participate in National, State, Multi- jurisdictional and Professional Society Efforts to Identify and Mitigate Hazards	3) Encourage these facility operators to create, maintain, and/or continue partnerships with local governments to develop response and recovery plans. 2) Recognize that emergency services is more than the coordination of police and fire response, for it also includes planning activities with providers of water, food, energy, transportation, financial, information and public health services.	In fiscal year 2009/10, the City of Saratoga held a disaster preparedness table top exercise in which City staff, and representatives from two Fire Districts, the Red Cross, Water system operators and several ancillary health facilities participated.

21.3.2 Staff and Organizational Capabilities

21.3.2.1 Departmental Responsibilities

The City of Saratoga operates several departments with capabilities for implementing hazard mitigation strategies. These departments and their roles and responsibilities are summarized in the following table.

Table 21-8: Key Departments in the City of Saratoga

Key Departments in the City of Saratoga
Departments
<ul style="list-style-type: none"> • Administrative Services This department has responsibility for the general financial management of the City. • City Manager’s Office The 5-member City Council provides overall policy direction, with the City Manager responsible for implementing adopted City policies. The City Manager’s office oversees the following tasks: (Note: those related to hazard mitigation are highlighted) <ul style="list-style-type: none"> ○ Animal control, under contract with the City of San Jose ○ Cable television ○ Community and intergovernmental relations ○ Community relations and communications with other government entities ○ Emergency preparedness ○ Human resources ○ Police services under contract with Santa Clara County ○ Risk management ○ Solid waste and recycling ○ Volunteer services • Community Development The Community Development Department encompasses the Planning, Arborist, Building and Code Enforcement Divisions. <ul style="list-style-type: none"> ○ Planning The primary responsibility of the Planning Division is Zoning Administration. Zoning Administration encompasses all aspects of land development review, including: keeping the City's Subdivision and Zoning Ordinances current and effective; meeting and consulting with potential applicants regarding the development review process; reviewing development proposals for consistency with the City's Plans and Ordinances and forwarding recommendations to the Planning Commission and City Council; plan-checking approved projects and following through with on-site inspections; considering annexation requests, and; analyzing County projects within the City's Sphere of Influence for consistency with the City's Plans and Ordinances. The Planning Division also includes Advance Planning responsibilities for planning assignments. ○ Arborist Not specifically related to hazard mitigation. ○ Building and Code Enforcement

The Building Inspection Division is responsible for administering the Uniform Building Code requirements, both through the plan-checking and on-site inspection process. The Code Enforcement Division is responsible for enforcing the Municipal Code and for administering both special business license and event permit requirements and parking fine and false alarm collections.

- **Public Works**

Public Works oversees three divisions - Engineering, Streets, and Parks.

- **Engineering**

- Reviews and manages construction of capital projects and the public's development plans for engineering and geological oversight, and ensures the City's environmental responsibilities are fulfilled

- **Streets**

- Maintains the roadway systems, including streets, signals, lighting, and storm drains

- **Parks**

- Maintains the City's parks, trails, medians, right-of-ways, landscape districts and City Hall

- **Recreation & Facilities**

- This Department creates community through programs, camps, classes, teen events, facility rentals, & theatre management.

With a clear hazard mitigation strategy, as outlined in this Local Hazard Mitigation Plan, the City's departments are able to implement their ongoing policies and programs with consideration of the identified hazard risks. In addition, these departments become aware of priority mitigation actions and can offer resources (financial or staffing) to assist with the implementation of those actions.

21.3.2.2 Technical Capability

For a successful mitigation program, it is necessary to have a diverse breadth of staff and technical capabilities. Planners, engineers, building inspectors, emergency managers, floodplain managers, people familiar with Geographic Information Systems (GIS), and grant writers are all essential to implementing mitigation actions. The following table summarizes the staffing capabilities available within the City of Saratoga.

Table 21-9: Technical Capability Matrix

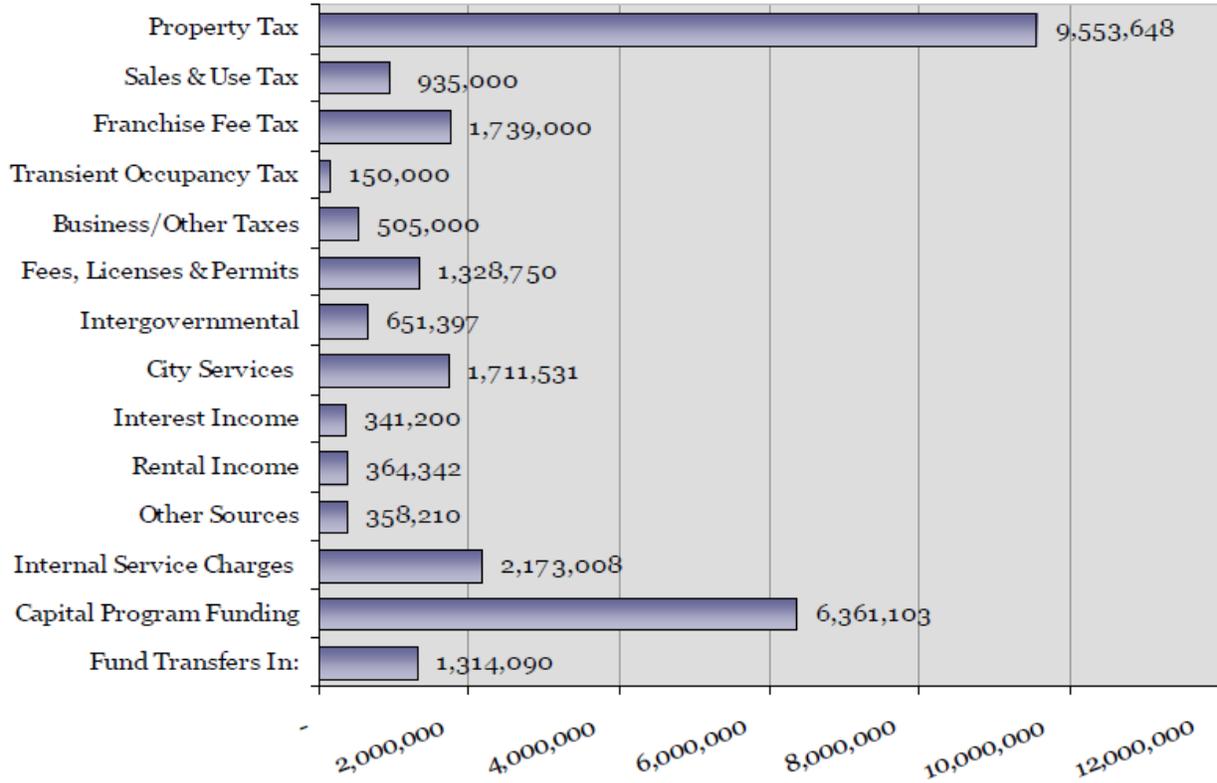
Technical Capability Matrix	
<i>Land Use Planners</i>	Community Development
<i>Emergency manager</i>	City Manager's Office
<i>Civil or Building Engineers</i>	Public Works
<i>Floodplain manager</i>	Public Works
<i>Staff knowledgeable about hazards</i>	City Manager's Office
<i>GIS staff</i>	Public Works
<i>Grant writers</i>	City Manager's Office; Public Works

21.3.2.3 Fiscal Capability

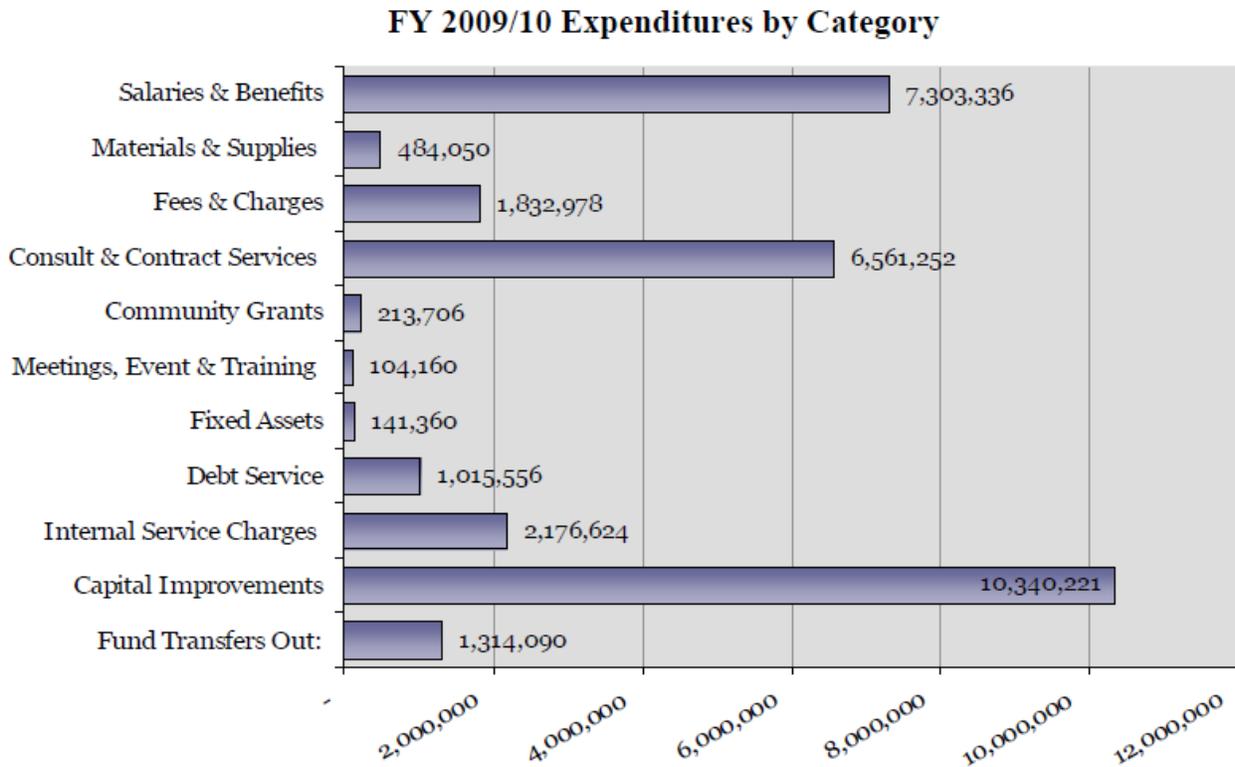
The following summarizes Saratoga's fiscal capabilities in terms of the City's financial resources and allocated spending. Property Tax and Capital Program Funding are the primary sources of Saratoga's financial resources. The City has allocated the majority of financial resources to Salaries & Benefits, Consultant & Contract Services, and Capital Improvements. These three categories are all relevant for implementing hazard mitigation actions.

TOTAL REVENUES & TRANSFERS IN BY CATEGORY

FY 2009/10 Revenues by Category



TOTAL EXPENDITURES & TRANSFERS OUT BY CATEGORY

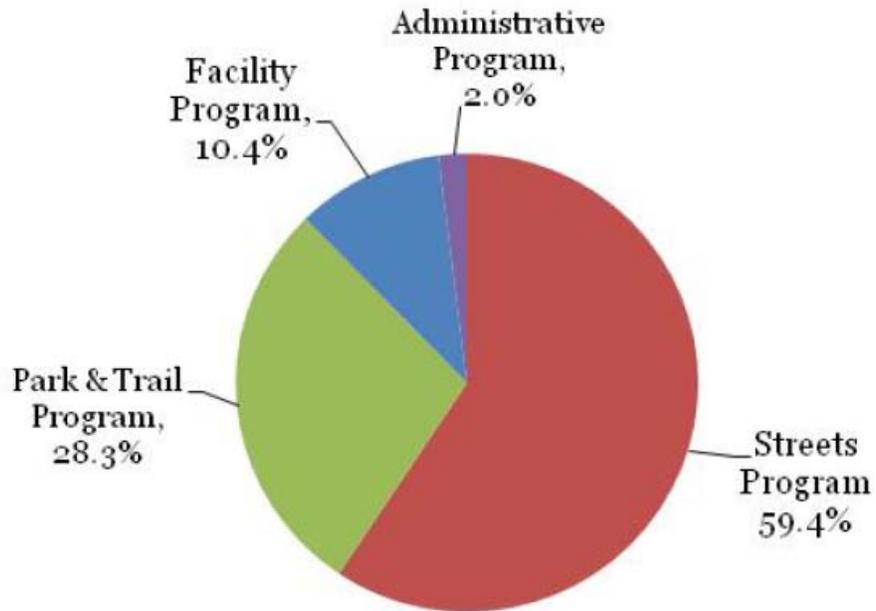


The funding values in the table below, along with the pie chart, are summarized from the City of Saratoga Capital Improvements Plan. The hazard mitigation strategy as outlined in this Local Hazard Mitigation Plan may be implemented as funding and staff resources allow.

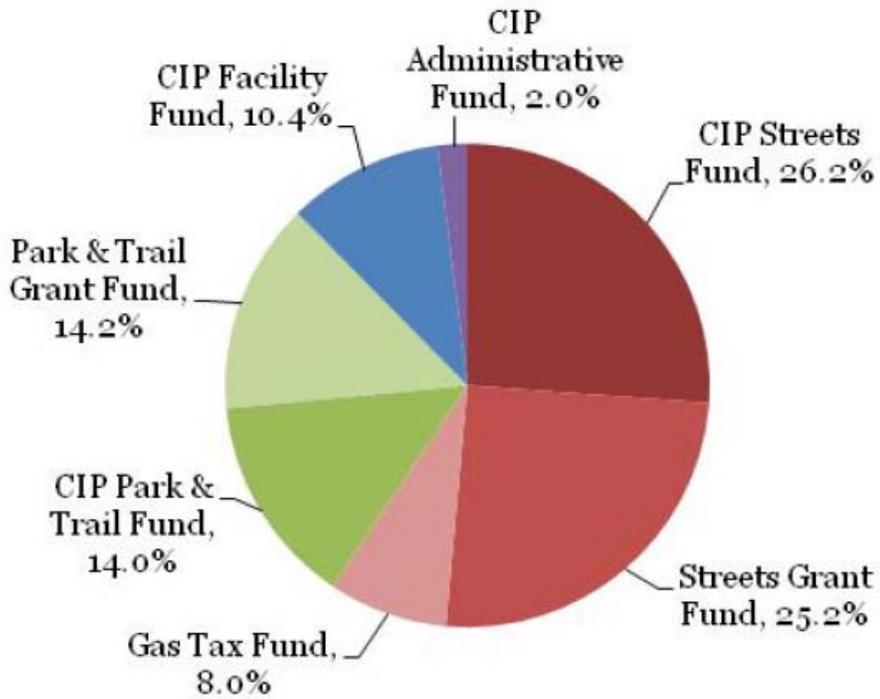
Table 21-10: Capital Improvements Spending

Capital Improvements Spending					
<i>Jurisdiction</i>	<i>Streets Program</i>	<i>Parks & Trails Program</i>	<i>Facility Program</i>	<i>Administrative improvement Program</i>	<i>Total Budget</i>
<i>City of Saratoga</i>	6,605,289	3,146,220	1,153,969	219,773	11,125,251

CAPITAL PROGRAM BUDGET BY PROJECT CATEGORY



CAPITAL PROGRAM BUDGET BY FUND



21.3.2.4 Policy or Program Capability

The City of Saratoga has several plans and ordinances in place which provide ample opportunities for implementing the hazard mitigation strategy outlined in this plan.

21.3.2.4.1 Summary of Plans that Support Hazard Mitigation

Emergency Operations Plan

The City of Saratoga's Emergency Operations Plan (EOP):

- identifies hazards that exist in Saratoga and the likelihood that they will occur in the City,
- outlines the strengths and weaknesses of the municipality in its preparedness activities, and,
- guides the City and agencies through a response to any emergency and through the recovery process of a disaster.

Two purposes of Saratoga's emergency plan are to enhance the development of Local Hazard Mitigation Planning on an ongoing basis and to support collaboration efforts between municipal staff and external partners such as fire services, law enforcement, utility organizations, colleges, community groups, and volunteers. The plan is designed to address the needs of all people located in Saratoga when a disaster happens. An outline of the EOP as it relates to hazard mitigation is provided below.

Hazard Analysis- The EOP ranks hazards by their likelihood to occur in Saratoga and the severity of the hazard if it were to occur. The hazards listed in the EOP include: aviation disaster, civil disturbance, earthquake, extreme weather/storm, floods, landslides, HAZMAT, heat wave, public health emergency, terrorism, transportation-highway, wildfire/forest fire.

Prevention & Mitigation- The EOP lists hazard specific mitigation actions to take in order to reduce the severity of damage that may result from the hazards listed above. The hazards and the hazard specific mitigation actions are listed below.

1. Earthquake
 - Inspect all structures for non-structural hazards and mitigate them
 - Provide Personal Emergency Preparedness training to City employees and volunteer responders
 - Continue community education efforts
2. Wildfire
 - Promote approved messages about fire safety and vegetation management in vulnerable areas
 - Perform specific weed and brush abatement actions per City Council resolution

3. Flood
 - Regularly inspect storm drains and keep clean
4. Heat Wave
 - Supervisors of City employees must ensure that employees receive sufficient breaks and water if working outdoors
 - Cooling centers are promoted to the public
5. Public Health Hazards
 - During outbreaks of contagious disease follow directions from the County Public Health Department
 - Encourage social distancing and proper hygiene
 - Ill employees must be sent home or to medical care
 - Increase the availability of public education campaigns
 - Encourage school surveillance processes
6. Hazardous Materials
 - Encourage familiarity with MSDS binders in the workplace
 - Train staff to store, use, and dispose of hazardous materials properly
 - Promote safe disposal of hazardous materials in the community
 - Promote education in large population buildings, shopping centers and schools regarding the Shelter in Place protocol for hazardous materials emergencies
7. Terrorism
 - Train staff to recognize suspicious packages and/or boxes, particularly those who process the mail.
 - Train residents to be aware of the surroundings and to be willing to report suspicious activity to the Sheriff's Office

Preparedness- The Preparedness section of the EOP details the City of Saratoga emergency organization, including the role of the Disaster Council, City Council, Mayor, and Director of Emergency Services. The plan also details the organization and roles of other City agencies and volunteers working in the field and at emergency operations centers. The organization and role of Santa Clara County, the State of California, and federal agencies is also documented in this plan. The Preparedness section also provides brief explanations of other hazard mitigation related documents; such as a Heat Wave Plan, Local Hazard Mitigation Plan, Saratoga Community Emergency Response Team (CERT) Operations Plan and Communications Plan, Point of Distribution Plan, Terrorism/WMD Plan, and a Volunteer Management Plan. Preparing and educating the public is deemed a responsibility of the American Red Cross, Saratoga CERT, and Santa Clara County Fire Department in this section of the plan. Also, methods to protect vital records by using a backup system are documented. The City of Saratoga has designated the areas to the west of Saratoga-Sunnyvale Road and south of Highway 9 as a high fire hazard area. New construction in that area must comply with California Building Code Chapter 7A, which requires fire safe construction standards. A Weed and Brush Abatement program, requiring property owners to clear weeds and brush, also exists in Saratoga in an effort to reduce the risk of wildfire.

Response- The response section of Saratoga’s EOP defines three levels of emergency that can be declared in the City and describes when the EOP and/or Emergency Operations Centers (EOC) are activated. The location and functions of the EOCs in Saratoga are listed in this section.

Recovery- The mitigation aspect of recovery operations is critical in reducing or eliminating disaster related property damage and loss of lives from reoccurring. The immediate post-disaster period presents a rare opportunity for mitigation. During this time, officials and citizens are more responsive to mitigation recommendations, and unique opportunities to rebuild or redirect development may be available. Recovery plans would benefit from addressing mitigation planning as part of the recovery process. Changes in building codes, variances or set-backs in construction, zoning (to reduce types of construction in high hazard areas), and relocation or removal of structures from high hazard zones are some forms of mitigation that may aid in hazard mitigation in the future.

General Plan

The General Plan charts the future of the City as expressed by the citizens and consists of goals, policies, action programs, area plans, and basic information regarding the City of Saratoga. Saratoga’s General Plan facilitates hazard mitigation in several ways. Following is a brief summary of three General Plan Elements highlighting the capabilities for implementing and supporting hazard mitigation.

Safety Element

The City of Saratoga recognizes within the Safety Element that public safety is the overarching goal in all new land-use planning in order to mitigate natural hazards. Housing development within Saratoga is designed with safety as a priority being maintained through regular building safety inspections. The community has identified its priority safety concerns, such as ensuring that gas, water and sewer leaks are identified and are cleaned up. Precautions are undertaken for emergency workers, in order to reduce exposure to toxic substances in the event of an emergency. Precautionary planning is integrated into all the City’s planning in order to mitigate future risk. The Safety Element is an integral component of Saratoga’s policy. No development will be permitted without an individual site-specific geotechnical investigation to determine soil stability, location of rift zones and the potential for other localized geotechnical problems. An early warning fire alarm system will be installed in all new single and multi-family dwellings. The city continues to enforce flood control regulations. It cooperates with the Santa Clara Valley Water District in regards to projects which impact floodways, in order mitigate the impact of development on flood hazards.

Land Use Element

The city’s land use planning policies, as outlined in the Land Use Element, address future growth with the consideration of hazard mitigation. Rezoning has supplemented existing zoning code

provisions to meet the demand for temporary shelters. The Land Use Element notes that all future land use and planning shall be in accordance with mitigation of public safety hazards, such as natural hazards impacted through increased development. The City of Saratoga aims to employ a wise use of natural resources to avoid natural hazards. These uses include agriculture, mineral extraction, parks and low intensity recreational facilities, land in its natural state, wildlife refuges and very low intensity residential development.

Housing Element

Housing in the City of Saratoga aims to address risks through use of appropriate building materials and site location and regular inspection. The city has a Building Inspection Division which is responsible for administering the Uniform Building Code requirements. This occurs through the plan-checking and on-site inspection processes. The Code Enforcement Division is responsible for enforcing the Municipal Code and for administering both special business license and event permit requirements and parking fine and false alarm collections. The City of Saratoga's building and fire codes support hazard mitigation. The city participates in the National Flood Insurance Program and Community Rating System. The city has facilities and infrastructure in place for the construction and availability of emergency housing. Lines of communication have been developed and established to work with appropriate federal agencies in order to obtain housing resources in the event of an emergency. Accommodations have been made for rehabilitation to fair and low-income housing in order to maintain residences in line with safety standards. The City aims to "assist low-income property owners in improving substandard dwelling units". High risk development areas will be limited to development in order to protect the environment and public health. The City requires installation of an early warning fire alarm system for all new housing. Future housing on hillsides shall implement grading along natural contours to avoid erosion, flooding slides and other hazards. Class "A" roof materials will be used in high fire zones to reduce risk. In addition, new development shall incorporate materials which take into account seismic concerns.

Floodplain Management Plan

In an effort to reduce the risk of loss of life, health, and property due to periodic flood inundation, the City of Saratoga has developed a floodplain management plan. The plan is designed to minimize the expenditure of public money for flood control projects, the need for rescue and relief efforts, business interruptions, and damage to public facilities and utilities. The floodplain management plan also ensures that potential buyers are notified that property is in an area of special flood hazard and that those who occupy property in those areas are held responsible for their actions. A floodplain administrator is responsible for the enforcement of this plan.

To reduce flood losses, the plan includes methods and provisions to control the alteration of natural floodplains, stream channels, and protective barriers; to control filling, grading, dredging and other development that can increase flood damage; to regulate the construction of flood barriers which can divert flood waters or increase flood hazards in other areas; and to require that uses vulnerable to

floods be protected against flood damage at the time of their construction. One of the provisions of this plan is that a development permit must be obtained before any construction or development begins and that certain construction standards, such as anchoring, building with flood resistant materials, and elevating and floodproofing, are required within an area of special flood hazard. The plan also enforces that new and replacement water and sanitary sewage systems should be designed to minimize flood water infiltration and discharge into flood waters. Standards are also included for subdivisions and manufactured homes.

Capital Improvements Plan

There are several projects listed within the City of Saratoga's Capital Improvements Plan, particularly in the Streets Program section, the Facility Projects Section, and the Administrative Projects Section, that may contribute to implementation of the mitigation strategy.

Streets Program- The Streets Program includes projects that develop and maintain the City's roadway system to provide safe and efficient traffic flows, street lighting for traffic safety, development and maintenance of street surfaces, storm drain systems, curbs, gutters and sidewalks, bridges and retaining walls, and utility undergrounding. Street repair and resurfacing keeps the streets in good condition and reduces liability expenses caused by roads in poor condition. Roadway safety projects and traffic calming are focused on reducing driver speed and making pedestrians more visible in order to reduce the number of traffic accidents in the City. Improvement to storm drains can mitigate the damage caused by floods, such as sink holes in roadways, damage to private property, and soil erosion. Improvement to and installation of sidewalk curbs, particularly vertical curbs that provide greater control of runoff water flow, can also reduce the potential for flooding and flood damage. Repairs to bridges and retaining walls can increase safety for pedestrians and vehicle users. Utility undergrounding projects, moving overhead utilities underground, can reduce safety risks associated with downed power lines. Fallen power lines can be especially problematic during winter storms.

Facilities Project Section- The Facilities Project Section includes projects for purchasing, constructing or making capital repairs to City buildings, structures and equipment. The city-owned buildings that are funded by these projects include the civic center, Saratoga Prospect Center, Village Historical Park, and the library building. Repairs include installing alarm systems, security locks, and general maintenance and improvements. Ongoing maintenance and improvements helps to prevent larger problems and costs associated with deferred maintenance, and increases the longevity of City facilities. Safety-related maintenance reduces liability expenses.

Administrative Improvement Projects Section- The Administrative Improvement Projects Section includes projects designed to improve the City's information technology infrastructure and communication systems. Upgrading the City's telecommunication system from PBX to Voice over Internet Protocol is expected to increase the reliability of the City's phone system.

This added reliability will be especially important during emergency situations. The City has also purchased and installed an emergency power supply to provide power to the City’s server room and the building during power outages. This project will ensure that City operations remain active during power outages and it is especially critical during emergency situations.

21.3.2.4.2 Summary of Ordinances that Support Hazard Mitigation

Table 21-11: Availability of Ordinances that Support Hazard Mitigation

Availability of Ordinances that Support Hazard Mitigation								
<i>Jurisdiction</i>	<i>Flood Plain Management Ordinance</i>	<i>Zoning Ordinance</i>	<i>Subdivision Ordinance</i>	<i>Post-disaster Red/Rec. Ordinance</i>	<i>Building Code</i>	<i>Fire Code</i>	<i>National Flood Insurance Program</i>	<i>NFIP Community Rating System</i>
<i>City of Saratoga</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NO

The City of Saratoga identified several ordinances and policies currently utilized for hazard mitigation in the matrix of regional mitigation strategies prepared by ABAG as part of the 2010 plan update. Below is a summary of these key ordinances and policies.

Floodplain Management Ordinance

The City of Saratoga has participated in the National Flood Insurance Program since 1973. The City of Saratoga filed NFIP Regular Program (with base flood elevation) biennial reports for calendar year 2007 and 2008 (filed in 2009). In 1996, the City’s Municipal Code Article 16-66 Flood Plain Management via City Council adoption of Ordinance No. 71-167. The City of Saratoga utilizes digital flood insurance rate maps, flood insurance studies, and other studies supplied by applicants when developing properties located in flood hazard areas to regulate development in flood hazard areas. The City has no repetitive flood loss properties.

Ordinance 256

Ordinance 256 adds Articles 16-16 and 16-17; repeals and replaces Articles 16-15 and 16-20—16-35. Article 16-16 relates to repair and reconstruction, and Article 16-17 relates to excavation and grading. The California Building Standard Code does not provide for damaged structures to be repaired or reconstructed to a structurally safe level, accounting for upgrades in wind and seismic standards. The ability to repair structures based upon the most recent industry knowledge is necessary to prevent or mitigate unnecessary future damage or injury. Therefore, Article 16-16 is added and referred to as the ‘Repair and Reconstruction Code’. The City of Saratoga’s dense

population is located in an area of high seismic activity and steep slopes susceptible to erosion. The provisions in the 2007 California Building Code provide only general direction and therefore Article 16-17 'Excavation and Grading Code' is added. It addresses areas of critically expansive soil and other unstable soil conditions which create a need for soil retention and diversion or increased flow of surface waters, particularly on steep slopes.

Ordinance 71-167

This ordinance repeals and replaces article 16-66 relating to floodplain management. The revised article includes methods and provisions to:

- (a) Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- (b) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (c) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- (d) Control filling, grading, dredging, and other development which may increase flood damage; and
- (e) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

Ordinance 71-193

Ordinance 71-193 amends Articles, 16-05, 16-15, 16-20, 16-25, 16-30, 16-35, 16-40 and 16-45, of the Saratoga Code of Ordinances. And adopts "by reference the following building standards codes comprising part of the California building standards code: The 1997 editions of the uniform building code as amended, the uniform fire code as amended, the uniform plumbing code, the uniform mechanical code as amended, the 1996 edition of the national electrical code and the 1997 editions of the uniform housing code as amended and the abatement of hazardous buildings code, as amended..."

Ordinance 215

Ordinance 215 adds Sections 16-15.065 and 16-15.095; amends Sections 16-15.010, 16-15.030, 16-25.010, 16-35.010 and Article 16-30; and repeals Section 16-05.020. These articles include the General Provisions for Building Regulations, Building Code, Fire Code, Plumbing Code, Mechanical Code, Electrical Code, Housing Code, and Abatement of Dangerous Building Code. Some of the general implications of this ordinance include the following: California Building Standards Code became effective for the City of Saratoga; the City of Saratoga has the right to amend the California Building Standards Code where amendments are necessary because of local conditions; adoption of the 2001 California Building, Plumbing, Mechanical, and Electrical Codes; defines types of construction, correct designations and references in the Saratoga City Code.

21.3.3 National Flood Insurance Program

For decades, the national response to flood disasters was simply to provide disaster relief to flood victims. Funded by citizen tax dollars, this approach failed to reduce losses and didn't provide a way to cover the damage costs of all flood victims. To compound the problem, the public generally couldn't buy flood coverage from insurance companies, because private insurance companies consider floods too costly to insure. In the face of mounting flood losses and escalating costs of disaster relief to U.S. taxpayers, Congress established the National Flood Insurance Program (NFIP). The goals of the program are to reduce future flood damage through floodplain management, and to provide people with flood insurance. Community participation in the NFIP is voluntary.

The City of Saratoga has participated in the National Flood Insurance Program since 1973. All residents of the City are eligible to purchase federal flood insurance. The City of Saratoga filed NFIP Regular Program (with base flood elevation) biennial reports for calendar year 2007 and 2008 (filed in 2009). In 1996, the City's Municipal Code Article 16-66 Flood Plain Management was implemented via City Council adoption of Ordinance No. 71-167.

The City of Saratoga utilizes digital flood insurance rate maps, flood insurance studies, and other studies supplied by applicants when developing properties located in flood hazard areas to regulate development in flood hazard areas.

21.3.3.1 Community Rating System (CRS)

The CRS is a voluntary part of the National Flood Insurance Program that seeks to coordinate all flood-related activities, reduce flood losses, facilitate accurate insurance rating, and promote public awareness of flood insurance by creating incentives for a community to go beyond minimum floodplain management requirements. The incentives are in the form of insurance premium discounts. CRS ratings are on a 10-point scale (from 10 to 1, with 1 being the best rating), with residents of the community who live within FEMA's Special Flood Hazard Areas (SFHA) receiving a 5% reduction in flood insurance rates for every Class improvement in the community's CRS rating.

The City of Saratoga has not joined the Community Rating System.

21.3.3.2 Repetitive Loss Properties

The Federal Emergency Management Agency (FEMA) insures properties against flooding losses in the Bay Area through the [National Flood Insurance Program](#).

As part of the process to reduce or eliminate repetitive flooding to structures across the United States, FEMA has developed an official Repetitive Loss Strategy. The purpose behind the national strategy is to identify, catalog, and propose mitigation measures to reduce flood losses to

the relatively few number of structures that absorb the majority of the premium dollars from the national flood insurance fund.

A repetitive loss property is defined by FEMA as “a property for which two or more National Flood Insurance Program losses of at least \$1,000 each have been paid within any 10-year period since 1978.”

The City of Saratoga has no repetitive flood loss properties.

Source: <http://quake.abag.ca.gov/mitigation/floodloss/>

21.3.4 Resource List:

Documents used in the assembly of this Capability Assessment include: City website, City FY09/10 Budget, Capital Improvements Budget, Emergency Operations Plan, General Plan, Floodplain Management Plan, Capital Improvements Plan, Ordinance 256, Ordinance 71-167, Ordinance 71-193, and Ordinance 215.

21.4 VULNERABILITY ASSESSMENT

21.4.1 Critical Facilities

During the development of this 2011 annex, the City identified 27 critical facilities and provided this list to ABAG in participation with the regional planning process. A summary listing of these facilities is shown in Table 21-12.

Table 21-12: City of Saratoga Critical Facilities

Facility Name	Address	Critical Function
MUSEUM	20450 SARATOGA AVE	
CONCESSION/RSTRM	12970 GLEN BRAE DR	RESTROOM FACILITY
PRK/RSTRM/SNKBR	12970 GLEN BRAE DR	RESTROOM FACILITY
RESTROOM	20764 FOURTH ST	RESTROOM FACILITY
MODULAR A	13777 FRUITVALE AVE	
WARNER HUTN BLDG	13777 FRUITVALE AVE	KITCHEN & RESTROOM FACILITY
CITY HALL/NEW WING	13777 FRUITVALE AVE	KITCHEN & RESTROOM FACILITY/IT SERVER ROOM
THEATER	13777 FRUITVALE AVE	LARGE GROUP MEETING
CONG SPR STRG	12970 GLEN BRAE DR	
CONGSPR SCRKEEP	12970 GLEN BRAE DR	

Facility Name	Address	Critical Function
PROSPECT CENTER, FRIENDSHIP HALL	19848 PROSPECT ROAD	KITCHEN & RESTROOM FACILITY/LARGE GROUP MEETING/SHELTER
PROSPECT CENTER, GRACE BUILDING	19848 PROSPECT ROAD	RESTROOM FACILITY
CARETAKER CTAGE	21000 BIG BASIN WAY	
PUMPHOUSE	21000 BIG BASIN WAY	
CULTURAL EXCHANG	21000 BIG BASIN WAY	
HAKONE PK OFFICE	21000 BIG BASIN WAY	
MAIN HOUSE/PARK	21000 BIG BASIN WAY	
GRDN PRK/EXHIBIT	21000 BIG BASIN WAY	
COMMUNITY CNTR	19655 ALLENDALE AVE	KITCHEN & RESTROOM FACILITY/LARGE GROUP MEETING/SHELTER
CORP YARD	19700 ALLENDALE AVE	RESTROOM FACILITY/TOOLS & EQUIPMENT/FUEL STORAGE
RESTROOM	21000 BIG BASIN WAY	RESTROOM FACILITY
STORAGE BLDG	21000 BIG BASIN WAY	
GARAGE/GIFT SHOP	21000 BIG BASIN WAY	
OLD LIBRARY	14410 OAK STREET	
CITY HALL	13777 FRUITVALE AVE	RESTROOM FACILITY/ALTERNATE EOC
LIBRARY	13650 SARATOGA AVE	RESTROOM FACILITY/MEETING ROOMS
FIRE STATION/ADMIN OFF.	14380 SARATOGA AVE	CITY EOC

This list of critical facilities and available information for them is available digitally in an excel spreadsheet from the City. A complete printing of the critical facilities data is included in Saratoga Attachment 3: Saratoga Exposure Analysis.

21.4.2 Exposure Analysis

Exposure analyses are used to quantify assets which are “exposed” to risk. This is the first step towards understanding the complete value of assets at risk to identified hazards. This section includes an exposure analysis (discussion of assets at risk) for the profiled hazards in Section 4.

Overlay analyses (using GIS) were conducted for the mappable hazards such as wildfire, flood, and the earthquake related hazards. These analyses compare the location of the critical facilities with the mapped hazard area (i.e. floodplains, wildfire threat zones, shaking potential areas, etc.) and result in a listing of which facilities are at most risk to which hazard. Not all hazards are mappable and some hazards, such as drought, are equally likely throughout the entire County. For these hazards, a general exposure summary is presented in Section 21.4.2.1.

21.4.2.1 General Exposure

ABAG's website (<http://quake.abag.ca.gov/mitigation/landuse/>) presents the results of the regional exposure analysis through a searchable online database. Users can view the summaries of land use and infrastructure exposed to the mappable hazards. This section presents the general summary of land use and infrastructure in the City of Saratoga. These should be considered at risk to the hazards of equal likelihood throughout the entire County geography (i.e. drought, extreme heat, thunderstorm, etc).

JURISDICTION: Saratoga
 COUNTY: Santa Clara
 HAZARD: Land Use
 BASIS: Existing Land Use, 2005 using 2009 hazard mapping

	Total Acres
TOTAL RESIDENTIAL LAND [excluding mixed use]:	5,302
1 unit/1-5 acre lot (Rural Residential)	1,793
1-3 units/acre	1,515
3-8 units/acre	1,923
>8 units/acre	71
Mobile Home Parks	0
TOTAL MIXED RESIDENTIAL/COMMERCIAL:	5
Within a Land Area	0
Within a Building	0
Mixture of Above or Unknown	5
TOTAL MIXED COMMERCIAL/INDUSTRIAL:	0
TOTAL INDUSTRIAL [excluding mixed]:	8
Light Industrial	7
Heavy Industrial	0
Salvage/Recycling, Mixture or Unknown	0
Food Processing, Warehousing	0
TOTAL MAJOR INFRASTRUCTURE:	1,096
Roads, Highway and Related Facilities	1,077
Rail Stations, Yards and Related Facilities	0
Airports	0
Ports	0
Power Facilities	0
Municipal Wastewater Facilities	0
Municipal Water Supply Facilities	0
Communication Facilities	19
Infrastructure--Other, Unknown	0
TOTAL MILITARY:	0
Military Residential	0

Military Hospital	0
Military Communications	0
Military Airport or Port	0
General Military	0
Open Military Lands	0
Closed Military Facilities	0
TOTAL COMMERCIAL/SERVICES [excluding mixed]:	469
Subtotal-Commercial:	124
Retail/Wholesale	41
Research/Office	37
Comm. Outdoor Recreation	5
Other, Mixture or Unknown	41
Subtotal-Education:	276
Educational Offices and Day Care	0
Elementary/Secondary	140
Colleges/Universities	135
Stadium Facilities	0
University Housing	0
Day Care Facilities	1
Subtotal-Hospitals and Health Care	3
Trauma Center Hospitals	0
Community or Local Hospitals	3
Surgery Centers	0
State Prisons	0
State Mental Health Facilities	0
Clinics and Long-Term Care	0
Subtotal-Public Institutions:	65
Convention Centers	0
Sports Stadiums	0
Churches/Synagogues/Other	40
City Halls/County Administration	25
Local Jails	0
Local Police/Fire/Emergency	0
Other-Comm. Centers/Libraries	0
TOTAL URBAN OPEN:	364
Golf Courses	48
Racetracks	0
Campgrounds and Other	0
Cemeteries	11
Parks	118
Vacant--Cleared for Redevelopment	0
Vacant--Undeveloped	176

Mixed Urban Open, Including Parks	10
TOTAL AGRICULTURE:	93
Cropland and Pasture	3
Orchards/Groves/Vineyards	90
Greenhouses	0
Confined Feeding	0
Farmsteads and Inactive	0
TOTAL RANGELAND:	265
Herbaceous Range	171
Shrub and Brush	94
Mixed Range	0
TOTAL WETLANDS [Based on USGS Mapping]:	0
Forested	0
Non-Forested	0
Salt Evaporators	0
Wetlands--Unknown	0
TOTAL FOREST LAND:	186
Deciduous	4
Evergreen	172
Mixed Forest	10
TOTAL SPARSELY VEGETATED:	0
Beaches	0
Other Sand	0
Bare Rock	0
Mines/Quarries	0
Transitional--Landfills	0
Transitional--Other	0
Transitional--Mixture	0
Mixed Sparsely Vegetated	0
	=====
	<u>Total Acres</u>
TOTAL URBAN LAND:	7,243
TOTAL NON-URBAN LAND:	544
GRAND TOTAL:	7,787

Source: Association of Bay Area Governments, 2009.

Note: Because of independent rounding, subcategories may not add to totals.

JURISDICTION: Saratoga
 COUNTY: Santa Clara
 HAZARD: Land Use
 BASIS: Existing Infrastructure, 2009

	<u>Total Miles</u>
ROADS:	186
Interstate Highway	5
Primary US/State Highway	0
Secondary State/Co Highway	32
Local Road	143
Misc Ramp/Road	6
TRANSIT:	0
Altamont Commuter Express (ACE)	0
Amtrak	0
Bay Area Rapid Transit (BART)	0
Caltrain	0
San Francisco Muni Metro	0
Santa Clara VTA	0
RAIL:	3
All Railroads	3
PIPELINES:	165
Pipelines Under Roads	165
	=====

Source: Association of Bay Area Governments, 2009.
 Miles of pipeline is an approximation based on miles of road within water service area boundaries and does not include major auqueducts.
 Miles of pipeline is miles of water pipelines. Miles of sewer pipelines should be approximately the same.

Note: Because of independent rounding, subcategories may not add to totals.

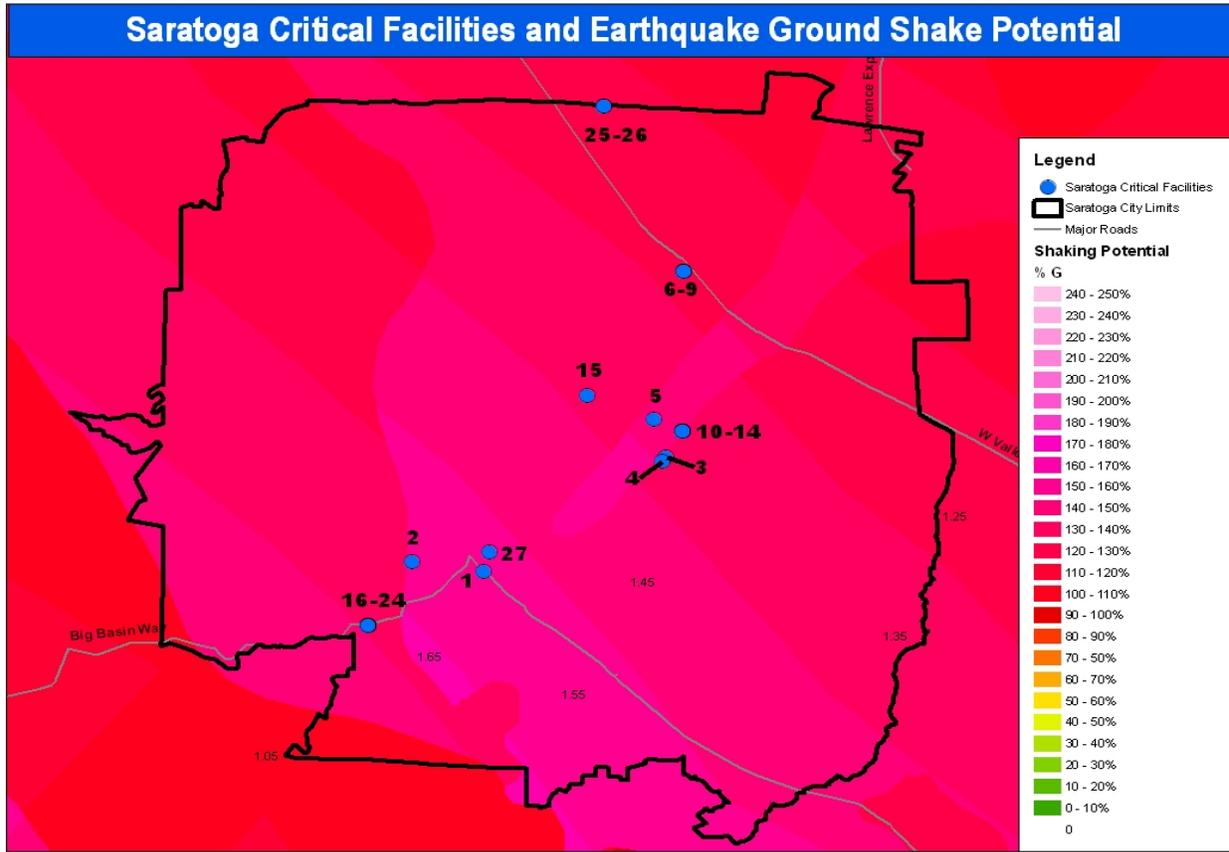
21.4.2.2 Critical Facilities Exposure by Hazard

ABAG's website (<http://quake.abag.ca.gov/mitigation/cf2010/>) presents the results of the regional facilities exposure analysis through a searchable online database. Users can view the summaries of how many facilities are exposed to the mappable hazards by category: health care facilities, schools, critical facilities, and bridges/interchanges. For the purposes of developing a City specific mitigation strategy, this section identifies which of the City's critical facilities are located in the mapped hazard areas.

The complete results from ABAG's exposure analysis are available digitally in an excel spreadsheet from the City. A complete printing of these results is included in Saratoga Attachment 3: Saratoga Exposure Analysis.

21.4.2.2.1 Earthquake Related Hazards

Ground Shaking



Source: CA Department of Conservation

Map Number	Critical Facility	Address	Peak Acceleration (%G)	Bldg Insured Value	Contents Insured Value
1	OLD LIBRARY	14410 OAK STREET	155	\$368,150	\$0
2	RESTROOM	20764 FOURTH Street	155	\$36,383	\$0
3	COMMUNITY CNTR	19655 ALLENDALE Avenue	135	\$3,308,565	\$233,730
4	CORP YARD	19700 ALLENDALE Avenue	135	\$595,000	\$37,486
5	LIBRARY	13650	145	\$2,369,417	\$0

Map Number	Critical Facility	Address	Peak Acceleration (%G)	Bldg Insured Value	Contents Insured Value
		SARATOGA Avenue			
6	PRK/RSTRM/S NKBR	12970 GLEN BRAE Drive	125	\$158,760	\$0
7	CONG SPR STRG	12970 GLEN BRAE Drive	125	\$23,814	\$0
8	CONGSPR SCRKEEP	12970 GLEN BRAE Drive	125	\$16,758	\$0
9	CONCESSION/RSTRM	12970 GLEN BRAE Drive	125	\$110,853	\$0
10	CITY HALL	13777 FRUITVALE Avenue	145	\$2,694,621	\$340,674
11	MODULAR A	13777 FRUITVALE Avenue	145	\$30,000	\$0
12	WARNER HUTN BLDG	13777 FRUITVALE Avenue	145	\$369,000	\$0
13	CITY HALL/NEW WING	13777 FRUITVALE Avenue	145	\$1,035,729	\$340,673
14	THEATER	13777 FRUITVALE Avenue	145	\$0	\$0
15	MUSEUM	20450 SARATOGA Avenue	135	\$222,000	\$0
16	MAIN HOUSE/PARK	21000 BIG BASIN WAY	135	\$185,220	\$5,513
17	GRDN PRK/EXHIBIT	21000 BIG BASIN WAY	135	\$267,908	\$4,961
18	RESTROOM	21000 BIG BASIN WAY	155	\$36,383	\$0
19	CARETAKER CTAGE	21000 BIG BASIN WAY	135	\$195,000	\$0
20	PUMPHOUSE	21000 BIG BASIN WAY	135	\$7,938	\$0
21	STORAGE BLDG	21000 BIG BASIN WAY	135	\$13,561	\$0
22	GARAGE/GIFT SHOP	21000 BIG BASIN WAY	135	\$13,561	\$0

Map Number	Critical Facility	Address	Peak Acceleration (%G)	Bldg Insured Value	Contents Insured Value
23	CULTURAL EXCHANG	21000 BIG BASIN WAY	135	\$1,164,578	\$0
24	HAKONE PK OFFICE	21000 BIG BASIN WAY	135	\$30,165	\$0
25	N. CAMPUS ADMIN BLDNG	19848 PROSPECT ROAD	125	\$0	\$0
26	N. CAMPUS FELLOWSHIP	19848 PROSPECT ROAD	125	\$0	\$0
27	FIRE STATION/ADM IN OFF.	14380 SARATOGA Avenue	155	\$6,000,000	\$250,000

All facilities are at risk to “Extreme” perceived shaking and “Very Heavy” potential damage.

Soft Story Multi-Family Dwellings

In 2003, the Collaborative for Disaster Mitigation at San Jose State University completed an “*Inventories of Soft-First Story Multi-Family Dwellings in Santa Clara County*”. At that time, the city of Saratoga had 9 soft-first story multi-family buildings including 262 residential units housing 655 occupants. Figure 21-1 below identifies the locations of these buildings.

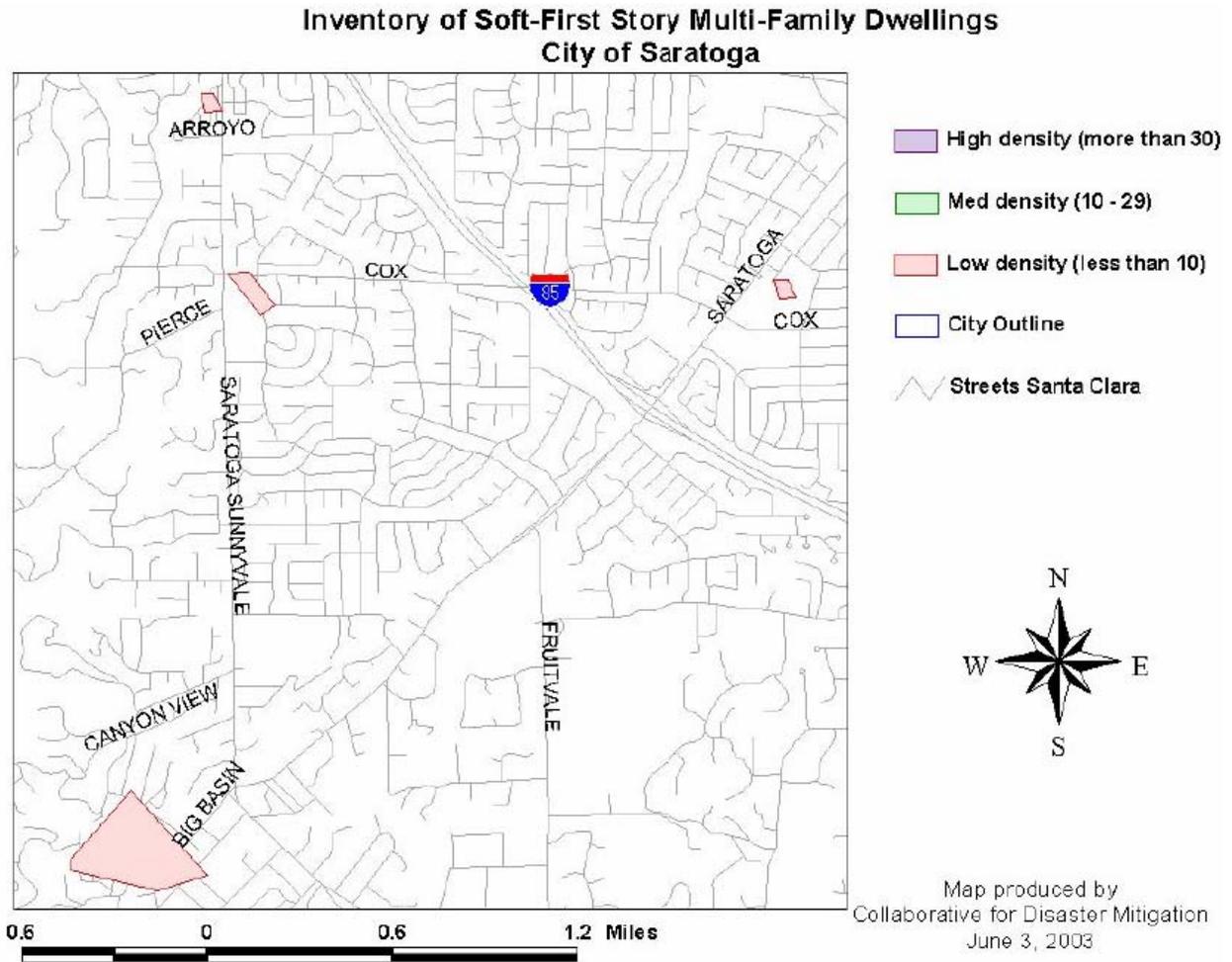
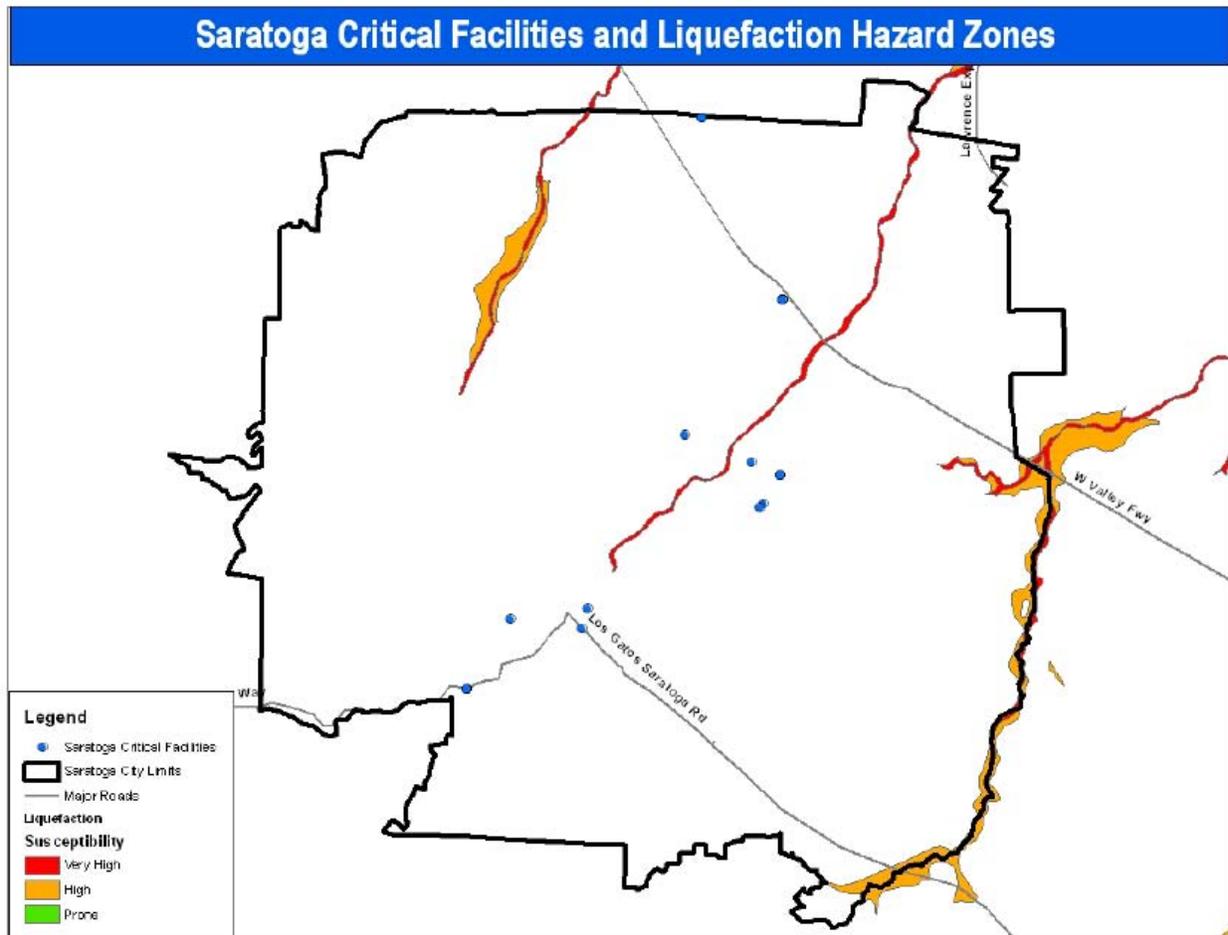


Figure 21-1: Inventory of Soft-First Story Multi-Family Dwellings- City of Saratoga

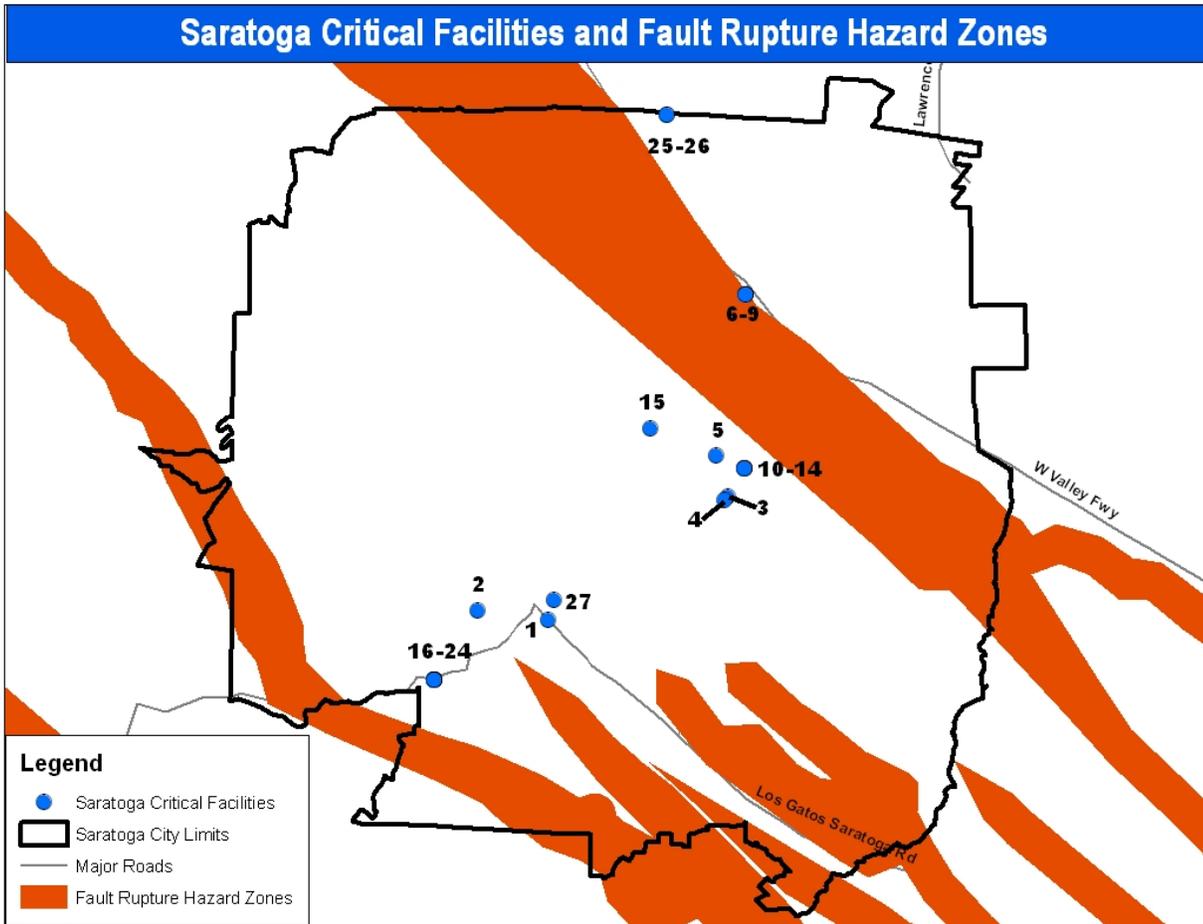
Earthquake Induced Liquefaction



Source: Santa Clara Planning Office

There are no critical facilities within the Liquefaction Susceptibility areas in the City of Saratoga.

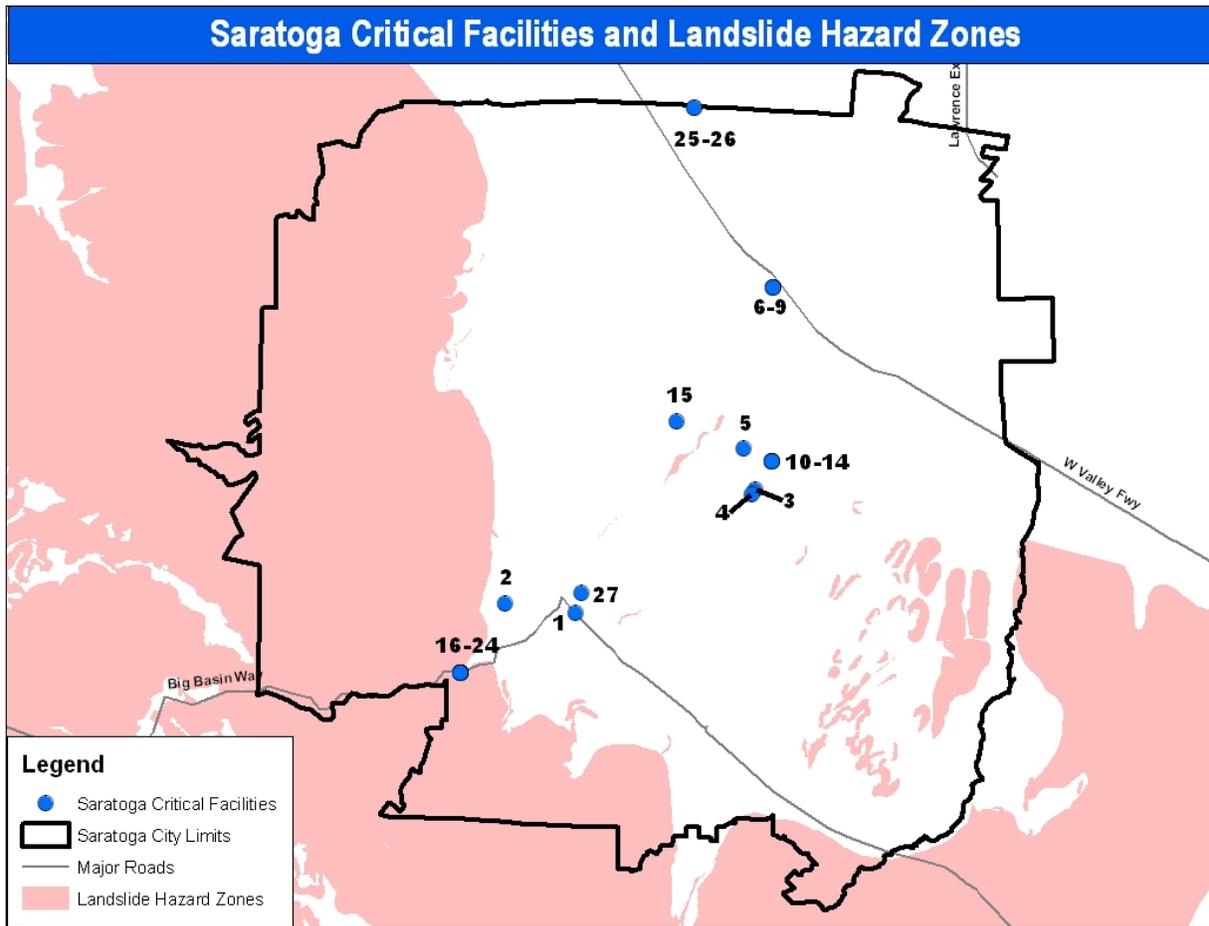
Surface Rupture



Source: CA Geological Survey, State of CA Department of Conservation

Map Number	Critical Facility	Address	With Fault Rupture Hazard Zone	Bldg Insured Value	Contents Insured Value
6	PRK/RSTRM/SNKBR	12970 GLEN BRAE Drive	Yes	\$158,760	\$0
7	CONG SPR STRG	12970 GLEN BRAE Drive	Yes	\$23,814	\$0
8	CONGSPR SCRKEEP	12970 GLEN BRAE Drive	Yes	\$16,758	\$0
9	CONCESSION/RSTRM	12970 GLEN BRAE Drive	Yes	\$110,853	\$0

Earthquake Induced Landslides



Source: Santa Clara Planning Office, CA State Department of Conservation

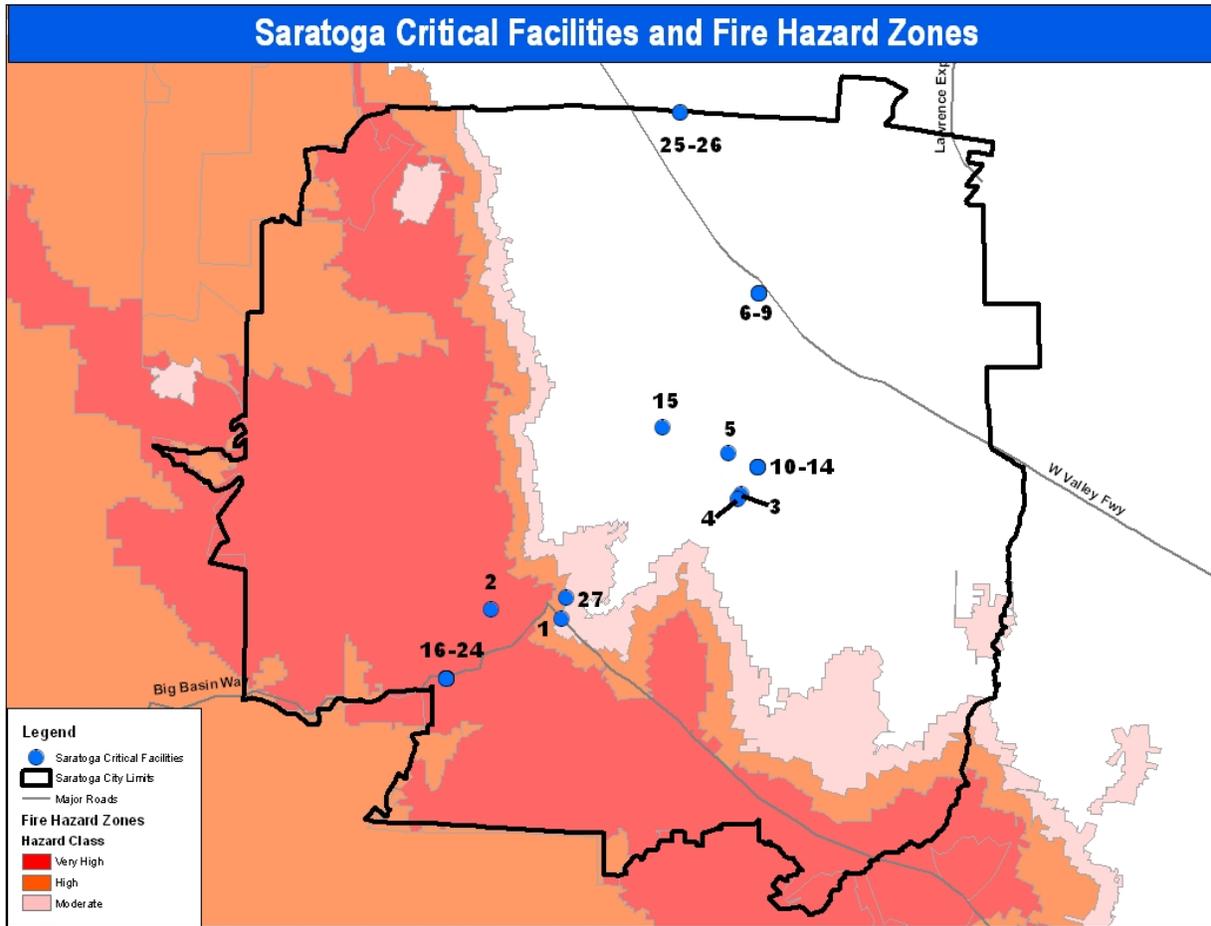
Map Number	Critical Facility	Address	Within Landslide Hazard Zone	Bldg Insured Value	Contents Insured Value
16	MAIN HOUSE/PARK	21000 BIG BASIN WAY	Yes	\$185,220	\$5,513
17	GRDN PRK/EXHIBIT	21000 BIG BASIN WAY	Yes	\$267,908	\$4,961
18	RESTROOM	21000 BIG BASIN WAY	Yes	\$39,690	\$0
19	CARETAKER CTAGE	21000 BIG BASIN WAY	Yes	\$195,000	\$0
20	PUMPHOUSE	21000 BIG BASIN WAY	Yes	\$7,938	\$0
21	STORAGE BLDG	21000 BIG BASIN WAY	Yes	\$13,561	\$0

Map Number	Critical Facility	Address	Within Landslide Hazard Zone	Bldg Insured Value	Contents Insured Value
22	GARAGE/GIFT SHOP	21000 BIG BASIN WAY	Yes	\$13,561	\$0
23	CULTURAL EXCHANG	21000 BIG BASIN WAY	Yes	\$1,164,578	\$0
24	HAKONE PK OFFICE	21000 BIG BASIN WAY	Yes	\$30,165	\$0

21.4.2.2.2 Infrastructure Failure

The City of Saratoga does not have any additional unique concerns or vulnerabilities regarding the hazard of infrastructure failure as presented in Section 4.

21.4.2.2.3 Wildfire

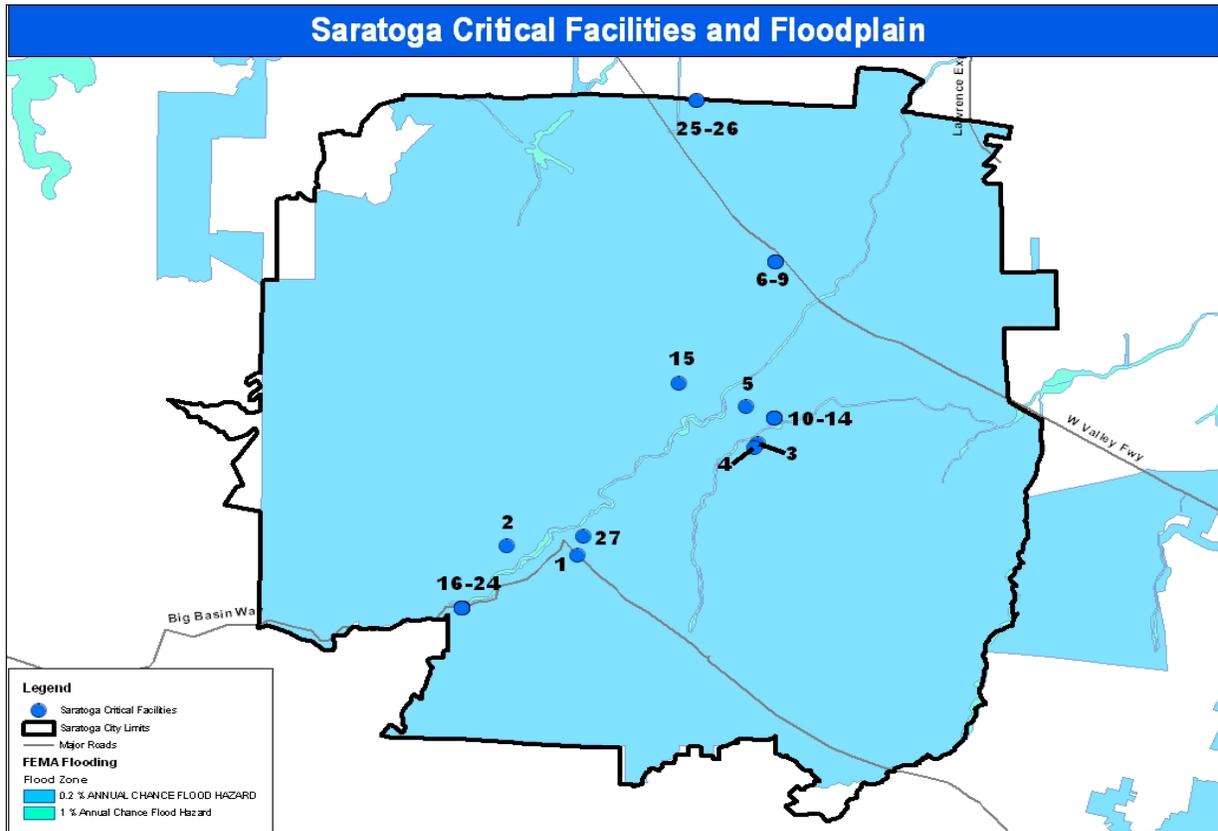


Source: CA Department of Forestry and Fire Protection

Map Number	Critical Facility	Address	Fire Hazard Zone	Bldg Insured Value	Contents Insured Value
2	RESTROOM	20764 FOURTH Street	Very High	\$36,383	\$0
16	MAIN HOUSE/PARK	21000 BIG BASIN WAY	Very High	\$185,220	\$5,513
17	GRDN PRK/EXHIBIT	21000 BIG BASIN WAY	Very High	\$267,908	\$4,961
18	RESTROOM	21000 BIG BASIN WAY	Very High	\$36,383	\$0
19	CARETAKER CTAGE	21000 BIG BASIN	Very	\$195,000	\$0

Map Number	Critical Facility	Address	Fire Hazard Zone	Bldg Insured Value	Contents Insured Value
		WAY	High		
20	PUMPHOUSE	21000 BIG BASIN WAY	Very High	\$7,938	\$0
21	STORAGE BLDG	21000 BIG BASIN WAY	Very High	\$13,561	\$0
22	GARAGE/GIFT SHOP	21000 BIG BASIN WAY	Very High	\$13,561	\$0
24	HAKONE PK OFFICE	21000 BIG BASIN WAY	Very High	\$30,165	\$0
23	CULTURAL EXCHANG	21001 BIG BASIN WAY	Very High	\$1,164,578	\$0
27	FIRE STATION/ADMIN OFF.	14380 SARATOGA Avenue	High	\$6,000,000	\$250,000
1	OLD LIBRARY	14410 OAK STREET	Moderate	\$368,150	\$0

21.4.2.2.4 Flooding



Source: FEMA- Santa Clara County DFIRM, 2009

Map Number	Critical Facility	Address	Flood Zone (% annual chance)	Bldg Insured Value	Contents Insured Value
1	OLD LIBRARY	14410 OAK STREET	.2%	\$368,150	\$0
2	RESTROOM	20764 FOURTH Street	.2%	\$36,383	\$0
3	COMMUNITY CNTR	19655 ALLENDALE Avenue	.2%	\$3,308,565	\$233,730
4	CORP YARD	19700 ALLENDALE Avenue	.2%	\$595,000	\$37,486
5	LIBRARY	13650 SARATOGA Avenue	.2%	\$2,369,417	\$0

Map Number	Critical Facility	Address	Flood Zone (% annual chance)	Bldg Insured Value	Contents Insured Value
6	PRK/RSTRM/SNKBR	12970 GLEN BRAE Drive	.2%	\$158,760	\$0
7	CONG SPR STRG	12970 GLEN BRAE Drive	.2%	\$23,814	\$0
8	CONGSPR SCRKEEP	12970 GLEN BRAE Drive	.2%	\$16,758	\$0
9	CONCESSION/RSTRM	12970 GLEN BRAE Drive	.2%	\$110,853	\$0
10	CITY HALL	13777 FRUITVALE Avenue	.2%	\$2,694,621	\$340,674
11	MODULAR A	13777 FRUITVALE Avenue	.2%	\$30,000	\$0
12	WARNER HUTN BLDG	13777 FRUITVALE Avenue	.2%	\$369,000	\$0
13	CITY HALL/NEW WING	13777 FRUITVALE Avenue	.2%	\$1,035,729	\$340,673
14	THEATER	13777 FRUITVALE Avenue	.2%	\$0	\$0
15	MUSEUM	20450 SARATOGA Avenue	.2%	\$222,000	\$0
16	MAIN HOUSE/PARK	21000 BIG BASIN WAY	.2%	\$185,220	\$5,513
17	GRDN PRK/EXHIBIT	21000 BIG BASIN WAY	.2%	\$267,908	\$4,961
18	RESTROOM	21000 BIG BASIN WAY	.2%	\$36,383	\$0
19	CARETAKER CTAGE	21000 BIG BASIN WAY	.2%	\$195,000	\$0
20	PUMPHOUSE	21000 BIG BASIN WAY	.2%	\$7,938	\$0
21	STORAGE BLDG	21000 BIG BASIN WAY	.2%	\$13,561	\$0

Map Number	Critical Facility	Address	Flood Zone (% annual chance)	Bldg Insured Value	Contents Insured Value
22	GARAGE/GIFT SHOP	21000 BIG BASIN WAY	.2%	\$13,561	\$0
23	CULTURAL EXCHANG	21000 BIG BASIN WAY	.2%	\$1,164,578	\$0
24	HAKONE PK OFFICE	21000 BIG BASIN WAY	.2%	\$30,165	\$0
25	N. CAMPUS ADMIN BLDNG	19848 PROSPECT ROAD	.2%	\$0	\$0
26	N. CAMPUS FELLOWSHIP	19848 PROSPECT ROAD	.2%	\$0	\$0
27	FIRE STATION/ADMIN OFF.	14380 SARATOGA Avenue	.2%	\$6,000,000	\$250,000

Sea Level Rise

No facilities in Saratoga are at risk of being impacted by sea level rise.

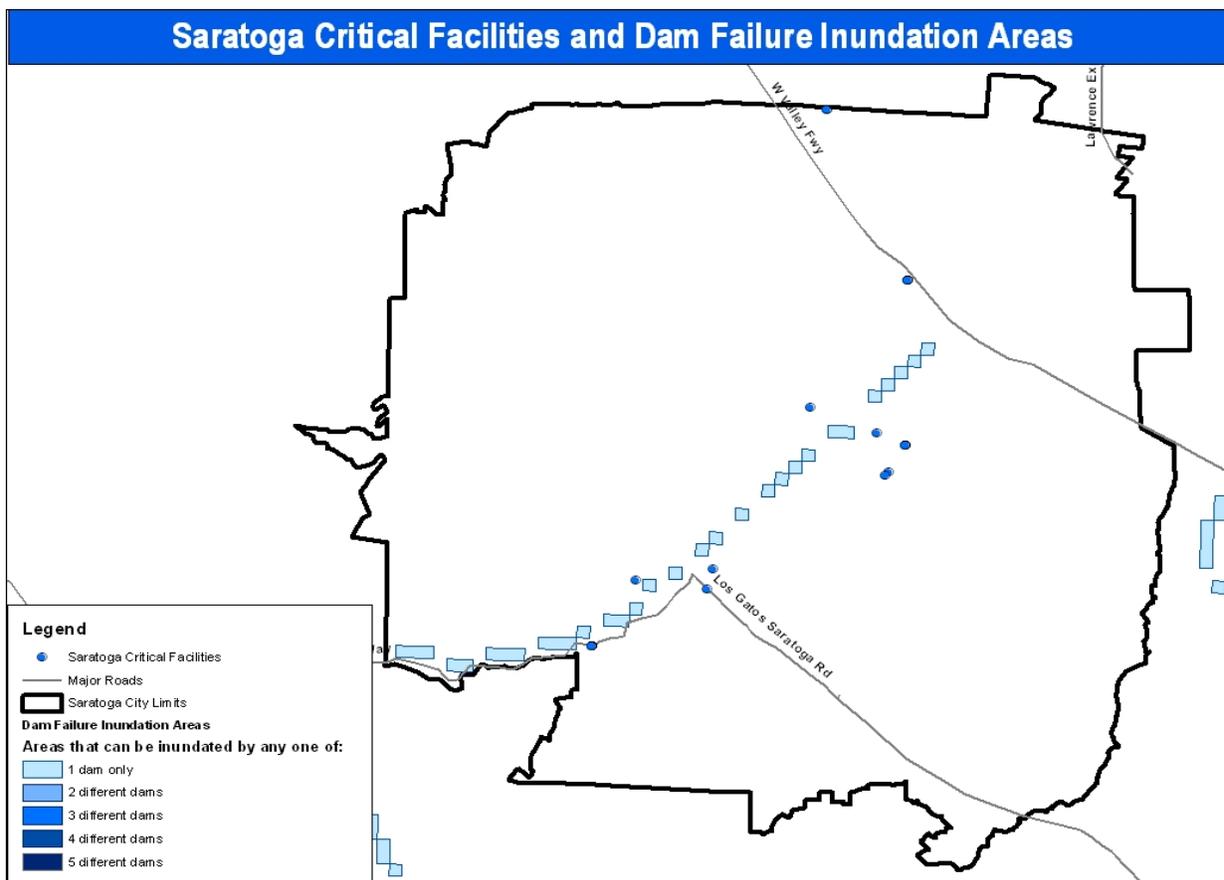
21.4.2.2.5 Drought

All populations, facilities, and assets are equally at risk to impact from drought. The City of Saratoga does not have any unique concerns regarding the hazard of drought as presented in Section 4.

21.4.2.2.6 Solar Storm

All populations, facilities, and assets are equally at risk to impact from solar storm events. The City of Saratoga does not have any unique concerns regarding the hazard of solar storm as presented in Section 4.

21.4.2.2.7 Dam Failure



Source: ABAG, 1995. Dam data from State of California Office of Emergency Services

There are no critical facilities located within a dam failure inundation area in Saratoga, CA. However, Saratoga acknowledges that people impacted by dam failure and evacuating from Los Gatos will come to Saratoga.

21.4.2.2.8 Disease Outbreak

All populations, facilities, and assets are equally at risk to impact from disease outbreak. The City of Saratoga does not have any unique concerns regarding the hazard of disease outbreak as presented in Section 4.

21.4.2.2.9 Freeze

All populations, facilities, and assets are equally at risk to impact from freeze occurrences. The City of Saratoga does not have any unique concerns regarding the hazard of freeze as presented in Section 4.

21.4.2.2.10 Wind

All populations, facilities, and assets are equally at risk to impact from high winds. The City of Saratoga does not have any unique concerns regarding the hazard of wind as presented in Section 4.

21.4.2.2.11 Heat

All populations, facilities, and assets are equally at risk to impact from extreme heat events. The City of Saratoga does not have any unique concerns regarding the hazard of heat as presented in Section 4.

21.4.2.2.12 Agricultural Pest

The City of Saratoga does not have any unique concerns regarding the hazard of agricultural pest as presented in Section 4.

21.4.2.2.13 Thunder and Lightning

All populations, facilities, and assets are equally at risk to impact from thunder and lightning events. The City of Saratoga does not have any unique concerns regarding the hazard of thunder and lightning as presented in Section 4.

21.4.2.2.14 Siltation – Bay Area

The City of Saratoga does not have any unique concerns regarding the hazard of siltation as presented in Section 4.

21.4.2.2.15 Tornado

All populations, facilities, and assets are equally at risk to impact from tornado occurrences. The City of Saratoga does not have any unique concerns regarding the hazard of tornado as presented in Section 4.

21.4.2.2.16 Hazardous Materials

Hazardous Materials spills are not of particular concern to the City of Saratoga.

21.4.2.2.17 Landslide and Debris Flow

Landslide and Debris Flow is not of particular concern to the City of Saratoga.

21.4.2.2.18 Other Hazards

Land Subsidence is not of particular concern to the City of Saratoga.

Expansive Soils are not of particular concern to the City of Saratoga.

Hailstorms are not of particular concern to the City of Saratoga.

Tsunami is not a hazard of concern for the City of Saratoga.

Volcano eruptions are not a hazard of concern for the City of Saratoga.

21.5 MITIGATION ACTIONS

21.5.1 Primary Concerns

Based on the exposure analysis, Saratoga's critical facilities are at significant risk to potential ground shaking and flood. The western portion of the city is at risk to wildfire and landslide. A few critical facilities fall within the zones of potential fault surface rupture.

21.5.2 Mitigation Actions

The City of Saratoga identified three specific mitigation actions for the 2011 update of this plan. Following are descriptions and implementation plans for those actions.

Problem Statement:

The City of Saratoga has a number of known, slow-moving landslides that could potentially impact City-owned infrastructure (storm drains, roads).

Project Description:

Implement mitigation strategies (placement of engineered fill, construction of retaining walls) in order to eliminate the potential for landslide areas to become critical hazards.

Corresponding ABAG Strategy Number:

Applicable Hazards

<u>Significant</u>	<u>Moderate</u>	<u>Limited</u>
<p>Earthquakes</p> <input type="checkbox"/> Ground Shaking <input type="checkbox"/> Liquefaction <input type="checkbox"/> Surface Rupture <input checked="" type="checkbox"/> Landslides	<input type="checkbox"/> Flood <input type="checkbox"/> Drought <input type="checkbox"/> Solar Storm <input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease and Outbreak <input type="checkbox"/> Freeze <input type="checkbox"/> Wind (high winds) <input type="checkbox"/> Extreme Heat <input type="checkbox"/> Agricultural Pests <input type="checkbox"/> Thunder / Lightning Storms <input type="checkbox"/> Bay Area Silting <input type="checkbox"/> Tornado <input type="checkbox"/> Hazardous Materials (Chemical/Biological) Spills <input type="checkbox"/> Landslide and Debris Flow	<input type="checkbox"/> Land Subsidence <input type="checkbox"/> Expansive Soils <input type="checkbox"/> Hailstorm <input type="checkbox"/> Tsunami <input type="checkbox"/> Volcano
<p>Infrastructure Failure</p> <input type="checkbox"/> Electrical System <input type="checkbox"/> Energy System <input type="checkbox"/> Telecommunication System <input type="checkbox"/> Transportation System <input type="checkbox"/> Waste Water System <input type="checkbox"/> Water System <input type="checkbox"/> Delta Levee Failure <input type="checkbox"/> Wildfire		

Potential Funding Sources: FEMA Mitigation Grant Funding

Responsible Department:

Public Works Development

Target Completion Date: *To be determined*

Additional Comments / Status Report:

The City has identified a minimum of \$1 million in existing landslide mitigation projects; however, we currently do not have funding to undertake this work.

Problem Statement:

The City of Saratoga has approximately 50 privately owned soft story buildings that have not been retrofitted to meet current seismic standards.

Project Description:

Provide incentives for private owners to retrofit soft story buildings. These incentives could take the form of reduced planning application, building permit and inspection fees, or other suitable incentives.

Corresponding ABAG Strategy Number: ECON b-3, b-4, b-7; HSNB c-3, c-4, c-7

Applicable Hazards

<u>Significant</u>	<u>Moderate</u>	<u>Limited</u>
<p>Earthquakes</p> <p><input checked="" type="checkbox"/> Ground Shaking</p> <p><input type="checkbox"/> Liquefaction</p> <p><input type="checkbox"/> Surface Rupture</p> <p><input type="checkbox"/> Landslides</p> <p>Infrastructure Failure</p> <p><input type="checkbox"/> Electrical System</p> <p><input type="checkbox"/> Energy System</p> <p><input type="checkbox"/> Telecommunication System</p> <p><input type="checkbox"/> Transportation System</p> <p><input type="checkbox"/> Waste Water System</p> <p><input type="checkbox"/> Water System</p> <p><input type="checkbox"/> Delta Levee Failure</p> <p><input type="checkbox"/> Wildfire</p>	<p><input type="checkbox"/> Flood</p> <p><input type="checkbox"/> Drought</p> <p><input type="checkbox"/> Solar Storm</p> <p><input type="checkbox"/> Dam Failure</p> <p><input type="checkbox"/> Disease and Outbreak</p> <p><input type="checkbox"/> Freeze</p> <p><input type="checkbox"/> Wind (high winds)</p> <p><input type="checkbox"/> Extreme Heat</p> <p><input type="checkbox"/> Agricultural Pests</p> <p><input type="checkbox"/> Thunder / Lightning Storms</p> <p><input type="checkbox"/> Bay Area Silting</p> <p><input type="checkbox"/> Tornado</p> <p><input type="checkbox"/> Hazardous Materials (Chemical/Biological) Spills</p> <p><input type="checkbox"/> Landslide and Debris Flow</p>	<p><input type="checkbox"/> Land Subsidence</p> <p><input type="checkbox"/> Expansive Soils</p> <p><input type="checkbox"/> Hailstorm</p> <p><input type="checkbox"/> Tsunami</p> <p><input type="checkbox"/> Volcano</p>

Potential Funding Sources: FEMA Mitigation Grant Funding

Responsible Department:

Community Development

Target Completion Date: *To be determined*

Additional Comments / Status Report:

The City has inventoried existing soft story buildings within its jurisdiction.

Problem Statement:

The City of Saratoga has a number of storm drain systems that are insufficient and contribute to flooding in low-lying areas, especially impacting the City’s road network.

Project Description:

Install new underground storm drainage throughout most vulnerable areas in the City, particularly in the Monte Vista/El Camino Grande and Chester Avenue areas.

Corresponding ABAG Strategy Number: INFR Flooding d-5, d-6

Applicable Hazards

<u>Significant</u>	<u>Moderate</u>	<u>Limited</u>
<p>Earthquakes</p> <input type="checkbox"/> Ground Shaking <input type="checkbox"/> Liquefaction <input type="checkbox"/> Surface Rupture <input type="checkbox"/> Landslides	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Drought <input type="checkbox"/> Solar Storm <input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease and Outbreak <input type="checkbox"/> Freeze <input type="checkbox"/> Wind (high winds) <input type="checkbox"/> Extreme Heat <input type="checkbox"/> Agricultural Pests <input type="checkbox"/> Thunder / Lightning Storms <input type="checkbox"/> Bay Area Silting <input type="checkbox"/> Tornado <input type="checkbox"/> Hazardous Materials (Chemical/Biological) Spills <input type="checkbox"/> Landslide and Debris Flow	<input type="checkbox"/> Land Subsidence <input type="checkbox"/> Expansive Soils <input type="checkbox"/> Hailstorm <input type="checkbox"/> Tsunami <input type="checkbox"/> Volcano
<p>Infrastructure Failure</p> <input type="checkbox"/> Electrical System <input type="checkbox"/> Energy System <input type="checkbox"/> Telecommunication System <input type="checkbox"/> Transportation System <input type="checkbox"/> Waste Water System <input type="checkbox"/> Water System <input type="checkbox"/> Delta Levee Failure <input type="checkbox"/> Wildfire		

Potential Funding Sources: FEMA Mitigation Grant Funding

Responsible Department:

Public Works

Target Completion Date: *To be determined*

Additional Comments / Status Report:

The City currently has approximately \$750,000 in needed storm drain upgrades; however, we do not have funding to pursue these improvements.

21.6 PLAN MAINTENANCE

As required Disaster Mitigation Act of 2000, the City of Saratoga will update this plan annex at least once every five years, by participating in a multi-agency effort with ABAG and other agencies to develop a multi-jurisdictional plan.

The City Manager's Office will ensure that monitoring of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our City, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of department leaders at least once a year in April. At that meeting, the department heads will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. The department leaders will be responsible for determining if the plan should be updated.

The City Manager's Office will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Jurisdictions should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The public will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the County will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.

Mitigation Plan Point of Contact

Name: Crystal Morrow
Title: City Clerk
Mailing Address: 13777 Fruitvale Avenue, Saratoga, CA 95070
Telephone: (408) 868-1275
Email: cmorrow@saratoga.ca.us

Alternate Point of Contact

Name: Dave Anderson
Title: City Manager
Mailing Address: 13777 Fruitvale Avenue, Saratoga, CA 95070
Telephone: (408) 868-1216
Email: davea@saratoga.ca.us

21.7 CITY OF SARATOGA APPENDIX

21.7.1 Saratoga Attachment 1: Saratoga Outreach

The City of Saratoga notified residents and businesses of the hazard mitigation planning process by distributing announcements regarding the public opportunity to respond to the online survey. This Attachment includes those outreach materials. The City also provided the opportunity for the public to comment on the draft mitigation strategies selected by City staff at the City Council meeting on November 4, 2009. Copies of the meeting agenda are also located in this Attachment.

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Tucked away in the foothills of the Santa Cruz Mountains, Saratoga is a lovely residential community with a small-town feel. The City is well known for its excellent schools, fine dining, unique shops, and distinctive cultural institutions. Saratoga offers a high quality of life to its residents and a chance to escape the hustle of Silicon Valley.



Learn More...



CITY NEWS

Seeking Your Input!

11/22/2010 The City of Saratoga is collaborating with Santa Clara County to update our local hazard mitigation plan. This plan outlines ways to increase our community's resiliency to natural hazard events (earthquake, flood, wildfire, etc.).

Your feedback is critical to increasing local resiliency. Please take a few moments to complete the brief survey by clicking on "More" below. (The survey will be available online through Friday, December 3, 2010)

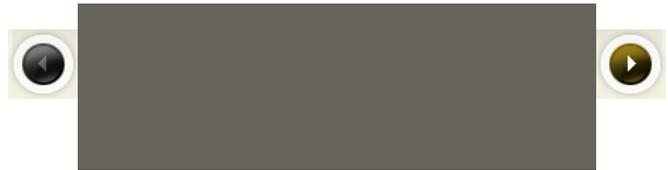
Thank you for your participation!

[More...](#)

Holiday Toy and Food Drive

11/18/2010 Help those in need by donating to the City of Saratoga's annual holiday toy and food drive. Barrels for toy donations are located at the Saratoga City Manager's Office. Toys should be new and unwrapped. Toys will be collected through December 16, 2010 and given to Sacred Heart Community Service.

Food donations can be dropped off at City Hall, Joan Pisani



RESIDENTS



BUSINESSES



VISITORS



MINUTES

SARATOGA CITY COUNCIL MEETING NOVEMBER 4, 2009

The City Council of the City of Saratoga met in Closed Session in the Administrative Conference Room at 5:30 p.m.

ANNOUNCEMENT OF CLOSED SESSION

CONFERENCE WITH LEGAL COUNSEL – Anticipated Litigation: Significant Exposure to Litigation Pursuant to Government Code Section 54956.9 (b) (1 potential case)

CONFERENCE – INSTRUCTION TO REAL PROPERTY NEGOTIATOR (Gov't Code Section 54956.8): Wildwood Way
Agency Negotiators: Dave Anderson, City Manager and John Cherbone, Public Works Director

MAYOR'S REPORT ON CLOSED SESSION

Mayor Page stated there was no reportable information.

City Council held a Joint Meeting with members of the Ministerial Association in the Administrative Conference Room at 6:00 p.m.

Mayor Page called the Regular City Council meeting to order at 7:00 p.m. and led the Pledge of Allegiance.

ROLL CALL

PRESENT: Councilmembers Howard Miller, Jill Hunter, Vice Mayor Kathleen King, Mayor Chuck Page

ABSENT: Susie Nagpal (Excused Absence)

ALSO PRESENT: Dave Anderson, City Manager
Richard Taylor, City Attorney
Barbara Powell, Assistant City Manager
Ann Sullivan, City Clerk
Mary Furey, Finance Director
John Cherbone, Public Works Director
John Livingstone, Community Development Director
Cynthia McCormick, Associate Planner
Kate Bear, City Arborist

REPORT OF CITY CLERK ON POSTING OF AGENDA

Ann Sullivan, City Clerk, reported that pursuant to Government Code Section 54954.2, the agenda for the meeting of November 4, 2009, was properly posted on October 29, 2009.

ORAL COMMUNICATIONS

The following people requested to speak:

Citizen Ray addressed the Council regarding the pollution from the Lehigh Cement Plant in Cupertino. He stated he recently attended a meeting in Sacramento regarding this concern.

Grover Steele addressed the Council regarding the October 13th article in the Saratoga Newspaper about the proposed Community Garden by the Peck family and the potential development of the West Valley Water District property bordering the Saratoga Creek; he stated he does not support this proposal.

Naomi Matsumoto expressed her appreciation of the support shown by the City Council for the West Valley Community Services program. She noted they have seen a 30% increase in participation from a year ago from people who need their services. She added they are having a difficult time keeping enough donated food items available for the people who are in need and welcomed any and all donations.

Vice Mayor King asked if they had enough volunteers for serving food on Thanksgiving Day.

Ms. Matsumoto noted they have enough servers lined up for that day; however they do need volunteers to adopt seniors for the *Adopt a Family Program* for the holidays.

Vice Mayor King asked how people could get excess produce from their fruit and vegetable trees to West Valley Community Services.

Ms. Matsumoto stated people could drop the excess produce off at the West Valley Community Services office or they could call their office to schedule a time where they could meet at the Los Gatos location to pick up the donated produce.

Janice Gamper addressed the Council regarding the discontinued public transportation services for people that needed transportation services later in the evening and asked how she could get transportation assistance for her and her father.

DIRECTION TO STAFF

Mayor Page suggested Ms. Gamper call 211 for transportation assistance.

COMMUNICATIONS FROM BOARDS AND COMMISSIONS

Reverend Eric Swanson from West Hope Presbyterian Church provided a brief report on the Joint Meeting with the Ministerial Association prior to the Regular Council meeting. He noted the association meets once a month and their goal is to continue networking with the various communities of faith within Saratoga to build a community of peace. They expressed an interest in working with the City to reach out together to build community. Reverend Swanson invited all Saratoga communities of faith to participate in the Thanksgiving Dinner Interfaith celebration on Thanksgiving Day at Congregation Beth David. In addition, he invited everyone that would like to be more involved in the

community to visit their website at www.SaratogaServes.org – a program that was enacted in 2008 that promotes service and good will in the Saratoga community.

Mayor Page took this opportunity to invite the members of the Ministerial Association that were in attendance to join him on the Dais so that he could present them with a proclamation declaring the month of November as “National Family Care Givers Month”. Mayor Page read the proclamation and presented it to the members that were present.

DIRECTION TO STAFF

None

ANNOUNCEMENTS

Vice Mayor King stated the Sister City 25th Anniversary celebrations will be starting this week and invited everyone to help welcome the delegation from Muko Japan and to join them in the tree planting event at the Warner Hutton House on Saturday . She added people could call the city offices to obtain a schedule of events.

Councilmember Hunter noted there was an event for children scheduled at the Saratoga Library on Saturday. Ms. Hunter also invited everyone to come to the annual Tree Lighting Ceremony on November 27th – followed by the Village Open House events.

Mayor Page noted the City began their Sister City relationship with Muko, Japan twenty five years ago; which includes a student exchange program. He added the Mayor from Muko, Japan would be a member of the delegation scheduled to arrive on Thursday.

Vice Mayor King invited everyone to participate in the “Turkey Trot” competition in downtown San Jose on the morning of Thanksgiving Day.

CEREMONIAL ITEMS

None

SPECIAL PRESENTATIONS

None

CONSENT CALENDAR

1. REVIEW OF ACCOUNTS PAYABLE REGISTERS

STAFF RECOMMENDATION:

That the City Council accepts the Check Registers for Accounts Payable cycles:
October 15, 2009
October 22, 2009

MILLER/HUNTER MOVED TO ACCEPT THE CHECK REGISTERS FOR ACCOUNTS PAYABLE CYCLES: OCTOBER 15, 2009 AND OCTOBER 22, 2009. MOTION PASSED 4-0-1 WITH COUNCILMEMBER NAGPAL ABSENT.

2. **TREASURER'S REPORT FOR THE MONTH ENDED SEPTEMBER 30, 2009**

STAFF RECOMMENDATION:

Review and accept the Treasurer's Report for the month ended September 30, 2009.

MILLER/HUNTER MOVED TO **ACCEPT THE TREASURER'S REPORT FOR THE MONTH ENDED SEPTEMBER 30, 2009.** MOTION PASSED 4-0-1 WITH COUNCILMEMBER NAGPAL ABSENT.

3. **FINAL MAP APPROVAL FOR TWO LOTS LOCATED AT 15211 HUME DRIVE**

STAFF RECOMMENDATION:

Move to adopt Resolution granting final map approval of tentative map application No. SUB 09-0001 for two lots located at 15211 Hume Drive.

RESOLUTION NO. 09-056

MILLER/HUNTER MOVED TO **ADOPT RESOLUTION GRANTING FINAL MAP APPROVAL OF TENTATIVE MAP APPLICATION NO. SUB 09-0001 FOR TWO LOTS LOCATED AT 15211 HUME DRIVE.** MOTION PASSED 4-0-1 WITH COUNCILMEMBER NAGPAL ABSENT.

4. **FY 2009 – 2010 CDBG COUNTY/CITY CONTRACT**

STAFF RECOMMENDATION:

Adopt a Resolution authorizing the City Manager to execute a \$464,069.77 contract with Santa Clara County for the FY 2009-2010 CDBG Program.

RESOLUTION NO. 09-057

MILLER/HUNTER MOVED TO **ADOPT A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A \$464,069.77 CONTRACT WITH SANTA CLARA COUNTY FOR THE FY 2009/2010 CDBG PROGRAM.** MOTION PASSED 4-0-1 WITH COUNCILMEMBER NAGPAL ABSENT.

5. **UPDATE OF SARATOGA'S LOCAL HAZARD MITIGATION PLAN (LHMP) MATRICES PURSUANT TO THE DISASTER MITIGATION ACT OF 2000**

STAFF RECOMMENDATION:

Authorize the City Manager to submit the attached updated mitigation matrices to the Association of Bay Area Governments (ABAG) and the Federal Emergency Management Agency (FEMA) for their preliminary review and comment.

MILLER/HUNTER MOVED TO **AUTHORIZE THE CITY MANAGER TO SUBMIT THE UPDATED MITIGATION MATRICES TO THE ASSOCIATION OF BAY AREA GOVERNMENTS (ABAG) AND THE FEDERAL EMERGENCY MANAGAEMENT AGENCY (FEMA) FOR THEIR PRELIMINARY REVIEW AND COMMENT.** MOTION PASSED 4-0-1 WITH COUNCILMEMBER NAGPAL ABSENT.

PUBLIC HEARINGS

6. APPEAL OF A TREE REMOVAL PERMIT (TRP09-0222).

STAFF RECOMMENDATION:

Staff recommends that the City Council uphold the Planning Commission decision denying the appeal and allowing the removal of four oak trees. The attached resolution would make removal subject to all the Planning Commission conditions, including a provision that work may not proceed if a court has determined that the Applicant may not remove trees within the easement.

City Arborist Kate Bear presented the staff report regarding the appeal of a tree removal permit on Via Regina Drive.

Max Keyashian, appellant, addressed the Council requesting that they deny the Planning Commission's decision allowing the removal of four oak trees at 21818 Via Regina.

Linda Yelavich, applicant, addressed the Council asking that they uphold the Planning Commission's decision granting removal of four oak trees at 21818 Via Regina.

Mayor Page opened the public hearing for comment.

No one requested to speak on this item.

Mayor Page closed the public hearing comment.

Mr. Kayeshian re-addressed the Council asking Council to deny the Planning Commission's decision to allow removal of four oak trees at 21818 Via Regina.

Linda Yelavich re-addressed the Council asking Council to uphold the Planning Commission's decision.

Councilmember Hunter noted she supported the appellant opposing the Planning Commission's decision to allow the removal of four oak trees.

RESOLUTION NO. 09-058

MILLER/KING MOVED TO **UPHOLD THE PLANNING COMMISSION'S DECISION APPROVING APPLICATION NO. TRP 09-0222 FOR THE REMOVAL OF FOUR COAST LIVE OAK TREES AT 21818 VIA REGINA; AND TO ADOPT THE RESOLUTION WHICH WOULD MAKE REMOVAL SUBJECT TO ALL THE PLANNING COMMISSION CONDITIONS, INCLUDING A PROVISION THAT WORK MAY NOT PROCEED IF A COURT HAS DETERMINED THAT THE APPLICANT MAY NOT REMOVE TREES WITHIN THE EASEMENT.** MOTION PASSED 3-1-1 WITH COUNCILMEMBER HUNTER OPPOSING AND COUNCILMEMBER NAGPAL ABSENT.

OLD BUSINESS

7. HERRIMAN AVENUE PEDESTRIAN WALKWAY AND BICYCLE LANE REVIEW

STAFF RECOMMENDATION:

Receive report and provide direction to staff

Public Works Director John Cherbone presented the staff report.

Franziska Church and Sohrab Rashid, Traffic Engineers from Fehr & Peers, provided additional data regarding pedestrian and bicycle lane options on Herriman Avenue and noted they recommended Options 1 or 3.

Mayor Page invited public comment.

The following people requested to speak on this item:

Carl Dwjta stated option 3 was probably the most ideal for the majority of the residents; however he was in support of Option 4.

Marilyn Foust stated a sidewalk was installed on a street that wasn't made to accommodate a sidewalk. She noted she receives complaints from the postman and noted she would like an option where there is a buffer and not to keep Herriman the way it is now.

Minggui Pan noted he does not support Option 2 as it would benefit only one or two residents and the chosen option should benefit the majority of the residents.

Bob Dimicco noted he supports Option 1.

Annette Cozimek stated she supports Option 4.

No one else requested to speak on this item.

Mayor Page closed the public comment.

KING/MILLER MOVED TO APPROVE OPTION 1: KEEP CURRENT CONFIGURATION OF HERRIMAN AVENUE. CREATE RAISED PEDESTRIAN WALKWAY BY FILLING IN BETWEEN THE ASPHALT BERM AND CONCRETE CURB. MOTION PASSED 3-1-1 WITH COUNCILMEMBER HUNTER OPPOSING AND COUNCILMEMBER NAGPAL ABSENT.

NEW BUSINESS

8. STATUS OF JANUARY 6, 2010 COUNCIL MEETING

STAFF RECOMMENDATION:

Consider cancelling the meeting of January 6, 2010.

City Clerk Ann Sullivan presented the staff report.

PAGE/KING MOVED TO **CANCEL THE JANUARY 6, 2010 COUNCIL MEETING.** MOTION PASSED 4-0-1 WITH COUNCILMEMBER NAGPAL ABSENT.

ADHOC & AGENCY ASSIGNMENT REPORTS

Mayor Chuck Page – reported:

Valley Transportation Authority PAC – meets Thursday evening and may vote on a couple items: Reorganization of small city groupings – specifically whether or not to add Milpitas to Sunnyvale and Santa Clara; and Governances – how the five small city representatives are appointed to the board. He noted VTA may be looking at additional employee layoffs due to the downturn in the economy and reduced ridership.

Vice Mayor Kathleen King – reported:

West Valley Flood Control Zone & Watershed Advisory Committee – suggested Council reconsider this committee as they only schedule four meetings a year and feels the meetings have not been very productive overall.

SSC Cities Association Executive Board – will meet next Thursday and noted the Cities Association will have “California Forward” come in to talk about the future Initiatives, such as the City of San Jose’s efforts to ban plastic bags, CDC grants of \$376 million dollars that are available to the County Health Departments and only 40 grants will be given out. These grants will be applied to improving access to community exercise programs, quitting smoking, and general health plan coverage’s. She reminded Council of the annual Christmas Party on December 3, 2009.

Councilmember Jill Hunter – reported:

Thanked KSAR for always attending every city function and for interviewing people.

Library Joint Powers Association – she attended the County Library meeting and noted they will be conducting a survey of people that do not have library cards; adding that only 45% of Saratogans have a library card. She stated their goal is to increase the number of library cards and circulation as this is what determines how much funding the Saratoga Library receives. She added Saratoga was recognized for their donation of \$50K to the library. She thanked the Friends of the Library group for their continued fund raising efforts.

Santa Clara County Valley Water District Commission – she attended the last meeting; they discussed the new changes that will be effective January 1, 2010 and stated the District’s goal is to have people cut back 20% in their water usage. She noted the County in general has reduced water usage by 15%.

Councilmember Howard Miller – reported: he attended the HTC Policy Committee meeting as an alternate and noted there are two items Council will want to be aware of regarding CDBG Grants. He stated the downturn in the economy has caused the County to look for ways to minimize the cost of their programs. For 2011 the County will try to limit the amount of administrative overhead for public service grants by considering having fewer grants at a larger amount. In addition they are considering retaining about

\$15,000 of administrative dollars that normally the City would use to administer the programs to help fund their services.

Chamber of Commerce – has moved into their new office on Big Basin; facility is open for business; and they expressed their appreciation to the city for waiving the CUP fee.

KSAR – is looking at spending some of the PEG capital dollars to purchase some video editing stations.

Santa Clara County Emergency Council – will be attending the meeting on Thursday.

Council Finance Standing Committee – met earlier today and noted Council did receive an updated Financial Report. He added the new computer software system is now able to generate reports for current revenue and expense by quarter, versus by budget. He stated expenses are below what was expected at this point – which is good; and revenue is difficult to determine as it is very seasonal, e.g. property tax dollars, which will be coming later in the fiscal year and those tax dollars are at where we expected them; and the Building Department has been issuing a lot of building permits, however, due to the economy not as many projects are coming in right now.

Councilmember Susie Nagpal – Excused Absence.

CITY COUNCIL ITEMS

Councilmember Miller noted the Boy Scouts of Troop 535 will be conducting their City-wide E-Waste Recycling in January and would like to attend the first meeting in December to provide additional information on this program.

Mayor Page stated Troop 535 members could speak during the Non-agendized portion of the Council Agenda on December 2, 2009, and they could lead the Pledge of Allegiance.

Councilmember Hunter provided Council with copies of an article in the Saratoga News 15 years ago regarding trees and noted she would provide City Arborist Kate Bear with one as well.

Mayor Page announced that as a result of the Joint Meeting held earlier with the Saratoga Ministerial Association he would like to agendize the addition of a new Council assignment for a council liaison to the Ministerial Association.

City Manager Dave Anderson reported that SASCC wanted to convey their appreciation of the City's participation in the recent shredding of documents; they conducted a successful Health Faire providing seasonal flu shots recently; and SASCC members are in the process of selecting an investment advisor. Their investment committee is conducting interviews to acquire a firm to assist SASCC with their portfolio. Councilmember Hunter noted she will be attending future SASCC meeting and inquired about the SASCC schedule.

City Manager Dave Anderson stated he would have Debbie Bretschneider contact her regarding the SASCC meeting schedule.

City Attorney Richard Taylor noted he is unable to attend the November 18, 2009 Council meeting and Assistant City Attorney Jonathan Wittwer would be attending in his absence.

CITY MANAGER'S REPORT

City Manager Dave Anderson noted he would like Council's permission to leave the state during the week of Thanksgiving.

Council extended their approval for Mr. Anderson to leave the state during the week of Thanksgiving.

Council Hunter noted Council members and staff were wearing white ribbons in honor of Susie Nagpal and wished her a speedy recovery.

ADJOURNMENT

There being no additional business Mayor Page asked for a motion to adjourn.

KING/HUNTER MOVED TO **ADJOURN THE REGULAR MEETING AT 9:25PM.**
MOTION PASSED 4-0-1 WITH COUNCILMEMBER NAGPAL ABSENT.

Respectfully submitted,

Ann Sullivan, CMC
City Clerk

Bartshire, Corinne

From: Barbara Powell [bpowell@saratoga.ca.us]
Sent: Tuesday, April 12, 2011 4:53 PM
To: Barbara Powell; Bartshire, Corinne
Subject: City of Saratoga Draft Hazard Mitigation Plan
Attachments: Saratoga Hazard Mitigation Plan Draft.pdf

Good afternoon,

Attached for your review and comments is the Draft Hazard Mitigation Plan for the City of Saratoga.

We appreciate your interest in disaster planning and preparedness and welcome your comments and suggestions.

Sincerely,

Barbara A. Powell
Assistant City Manager
City of Saratoga
(408) 868-1215

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Learn More...



CITY NEWS

2011 Arbor Day - April 22 at 3:30 p.m.

4/13/2011 Celebrate Saratoga's trees this Arbor Day on April 22, 2011 at 3:30 p.m. in [Foothill Park](#)! Enjoy refreshments, live music, help plant a tree, learn more about trees in your community, and take home compost and a free sapling! ([Event Flyer](#)) [More...](#)

Saratoga Pet Parade - April 16, 2011

4/13/2011 Don't miss the Saratoga Pet Parade on Saturday, April 16th at the [Saratoga Village Center](#)! Enter your pet in the contest, win prizes, and enjoy the parade! The parade begins at 11:00 a.m. Pet owners can enter the contest from 9:30 a.m. - 10:00 a.m. and judging and awards will take place from 10:00 a.m. - 11:00 a.m. Early registration is available. [More...](#)

City's 2011 Local Hazard Mitigation Plan 2011 Available for Public Review and Comment

4/12/2011 The City of Saratoga has participated with Santa Clara County in updating its Local Hazard Mitigation Plan. The purpose of the plan is to review potential natural disasters (e.g. fire, flooding, earthquake) that could occur in Saratoga and to identify strategies that can be taken to lessen and/or eliminate impacts that...



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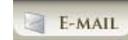
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NEWS DETAILS



City's 2011 Local Hazard Mitigation Plan 2011 Available for Public Review and Comment

The City of Saratoga has participated with Santa Clara County in updating its Local Hazard Mitigation Plan. The purpose of the plan is to review potential natural disasters (e.g. fire, flooding, earthquake) that could occur in Saratoga and to identify strategies that can be taken to lessen and/or eliminate impacts that could happen if a disaster took place. The plan also reviews City-owned facilities (e.g. buildings and park facilities) to determine whether they are vulnerable to damage in the event of a natural disaster.

The review draft of the City of Saratoga Annex is now available for comment. Your comments and questions may be directed to:

Barbara Powell, Assistant City Manager 408-868-1215 or bpowell@saratoga.ca.us; or

Corinne Bartshire, at 415-295-7116 or cbartshire@dewberry.com

Thank you for your review and input!

([Local Hazard Mitigation Plan](#))

21.7.2 Saratoga Attachment 2: Saratoga Strategies 2010

The City of Saratoga participated in ABAG's revision of the regional strategies for development of this annex. Appendix G of Taming Natural Hazards presents a summary list of mitigation strategies with regional priorities and the hazards mitigated. The City ranked those strategies in a spreadsheet provided by ABAG. This is a summary of those rankings.

JURISDICTION: Saratoga

Strategy	Priority	Responsible Agency or Department	Comments
ECON-a-1	NYC		
ECON-a-2	NYC		
ECON-b-1	Existing	Community Development Department	
ECON-b-2	Existing	Community Development Department	Ord. 256-2008 2007 California Building Code
ECON-b-3	Existing	Community Development Department	
ECON-b-4	Existing Underfunded	Community Development Department	
ECON-b-5	NYC		
ECON-b-6	NYC		
ECON-b-7	NYC		
ECON-b-8	Moderate	Community Development Department	
ECON-b-9	Under Study		
ECON-c-1	Existing	Community Development Department	
ECON-c-2	Existing		All unreinforced masonry buildings in Saratoga have been retrofitted.
ECON-c-3	NYC		
ECON-c-4	NYC		
ECON-d-1	n/a		These buildings do not currently exist in Saratoga
ECON-d-2	Existing		Ord. 256-2008 2007 California Building Code
ECON-d-3	NYC		
ECON-e-1	Existing	Saratoga Fire Protection District & Santa Clara County Fire Department	
ECON-e-2	Existing	Saratoga Fire Protection District & Santa Clara County Fire Department	
ECON-e-3	Existing	Community Development Dept., Saratoga Fire Protection District & Santa Clara County Fire Department	
ECON-e-4	Existing	Community Development Dept., Saratoga Fire Protection District & Santa Clara County Fire Department	Ord. 256-2008 2007 California Building Code & 2007 California Fire Code
ECON-e-5	Existing	Community Development Dept., Saratoga Fire Protection District & Santa Clara County Fire Department	
ECON-e-6	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
ECON-e-7	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
ECON-e-8	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
ECON-e-9	n/a		Saratoga does not have any high-rise/high-occupancy buildings.
ECON-e-10	Existing		
ECON-e-11	Moderate		
ECON-e-12	Existing		
ECON-e-13	Existing Underfunded		
ECON-f-1	Existing	Santa Clara Valley Water District	
ECON-f-2	Existing	Community Dev. Department	

ECON-f-3	Existing	Community Development Department	
ECON-f-4	Existing	Public Works Department	
ECON-f-5	Existing	Public Works Department	
ECON-f-6	Existing	Public Works Department	Ord. 71-167
ECON-f-7	NYC		
ECON-f-8	NYC		
ECON-f-9	NYC		
ECON-g-1	Existing	Community Development Department	Ord. 71-193 & 215-2002
ECON-g-2	Existing Underfunded		
ECON-h-1	Existing	Community Development Department	Ord. 256-2008 2007 California Building Code
ECON-h-2	Existing	Community Development Department	
ECON-h-3	Existing Underfunded		
ECON-i-1	NYC		
ECON-i-2	NYC		
ECON-i-3	NYC		
ECON-i-4	NYC		
ECON-i-5	Moderate	Community Development Department	
ECON-i-6	Existing Underfunded		
ECON-j-1	Existing		
ECON-j-2	Existing Underfunded		
ECON-j-3	NYC		
ECON-j-4	Existing Underfunded		
ECON-j-5	Existing Underfunded		
ECON-j-6	Existing Underfunded		
ECON-j-7	Existing		
ECON-j-8	Existing	Public Works Department	The City maintains our own storm drain system.
ECON-j-9	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
ECON-j-10	NYC		
ECON-j-11	n/a		The City is in agreement with this strategy; however, we are not the lead in its implementation.
ECON-j-12	n/a		
ECON-j-13	Existing	Admin./Emerg. Prep.; Santa Clara County Fire Department	
EDUC-a-1	n/a	School Districts (Saratoga is served by several)	The City is a separate entity from the school districts.
EDUC-a-2	n/a	School Districts (Saratoga is served by several)	The City is a separate entity from the school districts.
EDUC-a-3	n/a	School Districts (Saratoga is served by several)	The City is a separate entity from the school districts.
EDUC-a-4	n/a	School Districts (Saratoga is served by several)	The City is a separate entity from the school districts.
EDUC-a-5	n/a	School Districts (Saratoga is served by several)	The City is a separate entity from the school districts.
EDUC-a-6	Existing Underfunded		
EDUC-b-1	Existing		
EDUC-b-2	Existing		

EDUC-b-3	Existing		
EDUC-c-1	Existing		
EDUC-c-2	Existing		
EDUC-c-3	NYC		
EDUC-c-4	NYC		
EDUC-c-5	Existing		
EDUC-c-6	n/a	School Districts (Saratoga is served by several)	The City is a separate entity from the school districts.
EDUC-c-7	NYC		
EDUC-d-1	NYC		
EDUC-d-2	NYC		
ENVI-a-1	Existing	Community Development Department	
ENVI-a-2	Existing		The City contracts with the Sheriff and works with Fire agencies on these strategies.
ENVI-a-3	Existing	Community Development Department	
ENVI-a-4	Under Study		
ENVI-a-5	n/a	Santa Clara Valley Water District	
ENVI-a-6	Existing	Community Development & Public Works Departments	
ENVI-a-7	Existing	Community Development & Public Works Departments	
ENVI-a-8	n/a		
ENVI-a-9	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
ENVI-a-10	Existing		
ENVI-a-11	Existing	Facilities Division	
ENVI-a-12	Existing Underfunded	Saratoga Fire Protection District & Santa Clara County Fire Department	
ENVI-a-13	Existing Underfunded	Santa Clara Valley Water District	
ENVI-b-1	Existing		
ENVI-b-2	Existing Underfunded		
ENVI-b-3	Existing Underfunded		
ENVI-b-4	Existing Underfunded		
ENVI-b-5	Existing Underfunded		
ENVI-b-6	Existing Underfunded		
ENVI-b-7	Existing Underfunded		
ENVI-b-8	Existing Underfunded		
ENVI-b-9	Existing Underfunded		
ENVI-b-10	Existing Underfunded		
ENVI-b-11	Existing Underfunded		
ENVI-b-12	Existing Underfunded		
ENVI-b-13	Existing Underfunded		
ENVI-c-1	Moderate		
ENVI-c-2	n/a		
ENVI-c-3	n/a		
GOVT-a-1	Existing Underfunded	Facilities Division	
GOVT-a-2	Existing Underfunded	Facilities Division	
GOVT-a-3	Existing		

GOVT-a-4	Existing Underfunded	Facilities Division	
GOVT-a-5	Existing		
GOVT-a-6	NYC	Information Technology Division	
GOVT-a-7	Moderate	Facilities Division	
GOVT-a-8	n/a		The City does not own any dams.
GOVT-a-9	Existing	Facilities Division	
GOVT-a-10	Existing	Community Development Department	
GOVT-a-11	Existing	Community Development Department	
GOVT-a-12	Existing	Facilities Division	
GOVT-a-13	Existing	Community Development Department	
GOVT-b-1	Existing	Emergency Preparedness Coordinator, City Manager's Office	
GOVT-b-2	Existing Underfunded	Emergency Preparedness Coordinator, City Manager's Office	
GOVT-b-3	Existing		
GOVT-b-4	Existing Underfunded	Information Technology Division & Emergency Preparedness Coordinator	
GOVT-b-5	Existing Underfunded		
GOVT-c-1	Existing	Emergency Preparedness Coordinator	
GOVT-c-2	Existing	Emergency Preparedness Coordinator	
GOVT-c-3	Existing Underfunded	Emergency Preparedness Coordinator	
GOVT-c-4	Existing	Saratoga Fire Protection District & Santa Clara County Fire Department	
GOVT-c-5	Existing	Saratoga Fire Prot. Dist., Santa Clara County Fire Dept., & Sheriff's Office	
GOVT-c-6	Existing Underfunded	Saratoga Fire Prot. Dist., Santa Clara County Fire Dept., & Sheriff's Office	
GOVT-c-7	Existing Underfunded		
GOVT-c-8	Existing Underfunded		
GOVT-c-9	NYC	Public Works Department	
GOVT-c-10	Existing Underfunded		
GOVT-c-11	Existing Underfunded		
GOVT-c-12	Existing		
GOVT-c-13	Existing		
GOVT-c-14	NYC		
GOVT-c-15	NYC		
GOVT-c-16	Existing	Community Development Department	
GOVT-c-17	Existing	Saratoga Fire, Santa Clara County Fire, Sheriff's Office	
GOVT-c-18	n/a		The City is in agreement with this strategy; however, we do not have the lead in its implementation.
GOVT-c-19	Existing Underfunded	Sheriff's Office	
GOVT-c-20	Existing Underfunded	Santa Clara Valley Water District	
GOVT-c-21	n/a		The City is in agreement with this strategy; however, we do not have the lead in its implementation.

GOVT-c-22	Existing		
GOVT-c-23	Existing	Santa Clara Valley Water District	
GOVT-c-24	n/a		
GOVT-c-25	Existing Underfunded		
GOVT-d-1	Existing		Participation in Santa Clara County Emergency Managers Association
GOVT-d-2	Existing		
GOVT-d-3	Very High	Santa Clara Valley Water District	
GOVT-d-4	Existing	Santa Clara Valley Water District	
GOVT-d-5	Existing		
GOVT-d-6	Existing Underfunded	Saratoga Fire Protection District & Santa Clara County Fire Department	
GOVT-d-7	n/a		The City is in agreement with this strategy; however, we do not have the lead in its implementation.
GOVT-d-8	Existing		
GOVT-d-9	Existing Underfunded		
GOVT-d-10	NYC		
GOVT-e-1	Existing Underfunded		
GOVT-e-2	Existing Underfunded		
HEAL-a-1	Existing Underfunded	Community Development Department	
HEAL-a-2	n/a	Santa Clara County Public Health Department	
HEAL-a-3	Existing	Santa Clara County Public Health Department	
HEAL-a-4	Existing	Santa Clara County Public Health Department	
HEAL-a-5	Existing Underfunded	Santa Clara County Public Health Department	
HEAL-a-6	n/a	Santa Clara County Public Health Department	
HEAL-a-7	n/a	Santa Clara County Public Health Department	
HEAL-b-1	High		
HEAL-b-2	High		
HEAL-b-3	High		
HEAL-c-1	Existing	Santa Clara County Public Health Department	The City is working with the Health Department to implement this strategy.
HEAL-c-2	n/a	Santa Clara County OES; Santa Clara County Fire Department	
HEAL-c-3	n/a	Santa Clara County OES; Santa Clara County Public Health Department	
HEAL-c-4	n/a	Santa Clara County Public Health Department	
HEAL-c-5	n/a	Santa Clara County Environmental Health Department	
HEAL-c-6	n/a	Santa Clara County Environmental Health Department	
HSNG-a-1	NYC		
HSNG-a-2	NYC		

HSNG-a-3	Existing		
HSNG-a-4	Under Study		
HSNG-b-1	Existing	Community Development Department	
HSNG-b-2	Existing	Community Development Department	
HSNG-b-3	Existing	Community Development Department	
HSNG-b-4	Existing	Community Development Department	
HSNG-b-5	Existing	Community Development Department	
HSNG-b-6	n/a		The City is in agreement with this strategy; however, we do not have the lead role in its implementation.
HSNG-b-7	Existing Underfunded		
HSNG-b-8	n/a		The City is in agreement with this strategy; however, we do not have the lead role in its implementation.
HSNG-b-9	n/a		
HSNG-c-1	Existing	Community Development Department	
HSNG-c-2	Existing	Community Development Department	Ord. 256-2008 2007 California Building Code
HSNG-c-3	Existing	Community Development Department	
HSNG-c-4	Existing Underfunded	Community Development Department	
HSNG-c-5	NYC		
HSNG-c-6	NYC		
HSNG-c-7	NYC		
HSNG-c-8	Moderate		
HSNG-c-9	Under Study		
HSNG-d-1	Existing		
HSNG-d-2	Existing		All unreinforced masonry buildings in Saratoga have been retrofitted
HSNG-d-3	NYC		
HSNG-d-4	NYC		
HSNG-e-1	n/a		There are no mobile homes in Saratoga.
HSNG-e-2	n/a		These categories of structures do not currently exist in Saratoga.
HSNG-e-3	Existing		Ord. 256-2008 2007 California Building Code
HSNG-e-4	NYC		
HSNG-f-1	Existing	Community Development Department	Ord. 256-2008 2007 California Building Code
HSNG-f-2	Existing	Community Development Department	
HSNG-g-1	Existing	Saratoga Fire Protection District & Santa Clara County Fire Department	
HSNG-g-2	Existing	Saratoga Fire Protection District & Santa Clara County Fire Department	
HSNG-g-3	Existing	Community Development Dept., Saratoga Fire Protection District & Santa Clara County Fire Department	Ord. 256-2008 2007 California Building Code & 2007 California Fire Code
HSNG-g-4	Moderate		
HSNG-g-5	Existing	Community Development Department	
HSNG-g-6	Existing	Community Dev. Dept., Saratoga Fire Protection District & Santa Clara	Ord. 256-2008 2007 California Building Code & 2007 California Fire

		County Fire Department	Code
HSNG-g-7	Existing	Community Development Dept., Saratoga Fire Protection District & Santa Clara County Fire Department	
HSNG-g-8	Existing Underfunded	Saratoga Fire, Santa Clara County Fire, SC Valley Water District	
HSNG-g-9	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-g-10	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-g-11	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-g-12	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	Ord. 256-2008 2007 California Building Code & 2007 California Fire Code
HSNG-g-13	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	Ord. 256-2008 2007 California Building Code & 2007 California Fire Code
HSNG-g-14	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	Ord. 256-2008 2007 California Building Code & 2007 California Fire Code
HSNG-g-15	n/a		Saratoga does not have any high- rise/high-occupancy buildings.
HSNG-g-16	Existing		
HSNG-g-17	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-g-18	Existing	Community Development Department	Ord. 256-2008 2007 California Building Code & 2007 California Fire Code
HSNG-g-19	Moderate		
HSNG-g-20	Existing Underfunded		
HSNG-h-1	Existing	Santa Clara Valley Water District	
HSNG-h-2	Existing	Community Dev. Department	
HSNG-h-3	Existing	Community Development Department	
HSNG-h-4	Existing	Public Works Department	
HSNG-h-5	Existing	Public Works Department	
HSNG-h-6	Existing	Public Works Department	Ord. 71-167
HSNG-h-7	Existing	Public Works Department	Ord. 71-167
HSNG-h-8	NYC		
HSNG-h-9	Moderate		
HSNG-h-10	NYC		
HSNG-i-1	Existing	Community Development Department	Ord 71-193 & Ord. 215-2002
HSNG-i-2	Existing Underfunded		
HSNG-j-1	Moderate	Community Development Department	
HSNG-j-2	NYC		
HSNG-k-1	Existing	Community Development Department	
HSNG-k-2	Existing Underfunded		
HSNG-k-3	Existing	Community Development Department	
HSNG-k-4	n/a		The City is in agreement with this strategy; however, we are not the lead in its implementation.
HSNG-k-5	Existing		

HSNG-k-6	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-k-7	Existing Underfunded		
HSNG-k-8	Existing Underfunded	Santa Clara County Sheriff's Office	
HSNG-k-9	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-k-10	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-k-11	NYC		
HSNG-k-12	Existing		
HSNG-k-13	Existing	Public Works Department	
HSNG-k-14	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
HSNG-k-15	n/a		
HSNG-k-16	Existing	Admin., Emergency Preparedness; Santa Clara County Fire Department	
INFR-a-1	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-a-2	n/a		The City does not own any dams.
INFR-a-3	Existing	Public Works Department	
INFR-a-4	Existing Underfunded	Public Works Department	
INFR-a-5	Existing	Public Works Department	
INFR-a-6	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-a-7	Existing	Public Works Department	
INFR-a-8	Existing Underfunded	Facilities Division	
INFR-a-9	Existing Underfunded	Public Works Department	
INFR-a-10	Existing Underfunded	Public Works Department	
INFR-a-11	n/a	Public Works Department	
INFR-a-12	Existing	Public Works Department	The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-a-13	n/a		The City does not own any dams.
INFR-a-14	Existing	City Manager's Office; Emergency Preparedness Coordinator	
INFR-a-15	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
INFR-a-16	Existing Underfunded	City Manager's Office; Emergency Preparedness Coordinator	
INFR-a-17	n/a	MTC	
INFR-a-18	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-a-19	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-a-20	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-a-21	Existing Underfunded	City Manager's Office; Emergency	

Preparedness Coordinator

INFR-a-22	NYC		
INFR-b-1	Existing	Public Works Department	
INFR-b-2	Existing Underfunded		
INFR-b-3	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-b-4	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-b-5	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-b-6	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-b-7	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-b-8	Existing	Public Works Department & Facilities Division	
INFR-b-9	NYC		
INFR-b-10	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-c-1	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
INFR-c-2	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
INFR-c-3	Existing Underfunded	Saratoga Fire Protection District and Santa Clara County Fire Department	
INFR-c-4	Existing	Public Works Department	
INFR-c-5	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
INFR-c-6	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
INFR-c-7	Existing	SFPD and SCCFD	
INFR-c-8	Existing Underfunded	Public Works Department	
INFR-d-1	Existing Underfunded	Santa Clara Valley Water District	
INFR-d-2	Existing Underfunded	Santa Clara Valley Water District	
INFR-d-3	Existing Underfunded	Santa Clara Valley Water District	
INFR-d-4	Existing	Public Works Department	
INFR-d-5	Existing Underfunded	Santa Clara Valley Water District	
INFR-d-6	Existing Underfunded	Public Works Department	
INFR-d-7	Existing Underfunded	Public Works Department	
INFR-d-8	Existing Underfunded	Public Works Department	
INFR-d-9	Existing Underfunded	Santa Clara Valley Water District	
INFR-d-10	n/a	Santa Clara Valley Water District	
INFR-d-11	Existing Underfunded	Public Works Department	
INFR-d-12	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.

INFR-d-13	Existing	Public Works Department	
INFR-d-14	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-d-15	Existing Underfunded	Public Works Department	
INFR-d-16	Existing	Public Works Department	
INFR-d-17	n/a	Santa Clara Valley Water District	
INFR-d-18	n/a	Santa Clara Valley Water District	
INFR-e-1	n/a		
INFR-e-2	Existing	Community Development Department	Ord. 71-113
INFR-f-1	n/a		The City is in agreement with this strategy; however, we do not have a lead role in its implementation.
INFR-g-1	Existing		
INFR-g-2	Existing		
INFR-g-3	Existing		
INFR-g-4	Existing		
INFR-g-5	Existing		
INFR-g-6	NYC	City Manager's Office, Emergency Preparedness Coordinator	
INFR-g-7	Existing		
LAND-a-1	Existing	Community Development Department	Ord. 221-2003
LAND-a-2	Existing	Community Development Department	Ord. 221-2003
LAND-a-3	Existing	Community Development Department	
LAND-a-4	Under Study		
LAND-a-5	Under Study		
LAND-a-6	Existing	Community Development Department	
LAND-a-7	Existing	Community Development Department	
LAND-a-8	Existing	Community Development Department	Municipal Code Section 16-65.040
LAND-b-1	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
LAND-b-2	Existing	Saratoga Fire Protection District and Santa Clara County Fire Department	
LAND-c-1	Existing	Community Development Department	Ord. 71-167
LAND-c-2	Existing	Public Works Department	
LAND-c-3	Existing	Public Works Department	
LAND-c-4	Existing	Public Works Department	Ord. 71-167
LAND-c-5	Very High		
LAND-c-6	Very High		
LAND-d-1	Existing	Community Development Department	Ord. 71-193 & Ord. 215-2002
LAND-d-2	Existing	Community Development Department	
LAND-d-3	Existing	Community Development Department	Ord. 71-193 & Ord. 215-2002
LAND-d-4	Existing	Community Development and Public Works Departments	
LAND-d-5	Existing	Community Development Department	Ord. 71-113
LAND-e-1	Existing	Community Development Department	
LAND-e-2	Existing	Community Development Department	
LAND-f-1	n/a		
LAND-f-2	n/a		

[LAND-f-3](#) Existing
[LAND-f-4](#) NYC
[LAND-f-5](#) n/a
[LAND-g-1](#) n/a

Source: Association of Bay Area Governments, 2009.

21.7.3 Saratoga Attachment 3: Saratoga Exposure Analysis

This list includes all information on Saratoga's critical facilities and identifies which of the City's critical facilities are located in the mapped hazard areas.

ID	Critical Facility	Address	Type	Occupancy	Own/Lease	Structure Type
15	MUSEUM	20450 SARATOGA AVE	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
9	CONCESSION/RSTRM	12970 GLEN BRAE DR	N/A	N/A	own	Reinforced masonry with rigid floor and roof
6	PRK/RSTRM/SNKBR	12970 GLEN BRAE DR	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
2	RESTROOM	20764 FOURTH ST	N/A	N/A	own	Reinforced masonry with rigid floor and roof
11	MODULAR A	13777 FRUITVALE AVE	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
12	WARNER HUTN BLDG	13777 FRUITVALE AVE	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
13	CITY HALL/NEW WING	13777 FRUITVALE AVE	N/A	N/A	own	Wood-frame building > 5,000 SQFT
14	THEATER	13777 FRUITVALE AVE	N/A	N/A	own	Wood-frame building > 5,000 SQFT
7	CONG SPR STRG	12970 GLEN BRAE DR	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
8	CONGSPR SCRKEEP	12970 GLEN BRAE DR	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
26	N. CAMPUS FELLOWSHIP	19848 PROSPECT ROAD	N/A	N/A	own	Wood-frame building > 5,000 SQFT
25	N. CAMPUS ADMIN BLDNG	19848 PROSPECT ROAD	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
19	CARETAKER CTAGE	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
20	PUMPHOUSE	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
23	CULTURAL EXCHANG	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
24	HAKONE PK OFFICE	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
16	MAIN HOUSE/PARK	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
17	GRDN PRK/EXHIBIT	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
3	COMMUNITY CNTR	19655 ALLENDALE AVE	N/A	N/A	own	Wood-frame building > 5,000 SQFT
4	CORP YARD	19700 ALLENDALE AVE	N/A	N/A	own	Light metal frame
18	RESTROOM	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
21	STORAGE BLDG	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
22	GARAGE/GIFT SHOP	21000 BIG BASIN WAY	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
1	OLD LIBRARY	14410 OAK STREET	N/A	N/A	own	Light wood-frame building <= 5,000 SQFT
10	CITY HALL	13777 FRUITVALE AVE	N/A	N/A	own	Wood-frame building > 5,000 SQFT
5	LIBRARY	13650 SARATOGA AVE	N/A	N/A	own	Wood-frame building > 5,000 SQFT
27	FIRE STATION/ADMIN OFF.	14380 SARATOGA AVE	N/A	128	own	Reinforced masonry with flexible floor and roof

ID	Critical Facility	Structure Information	Irregularities-Plan View	Irregularities-Vertical	Structural Assessment	Retrofit
15	MUSEUM	N/A	Regular	Regular	N/A	no
9	CONCESSION/RSTRM	N/A	Regular	Regular	N/A	no
6	PRK/RSTRM/SNKBR	N/A	Regular	Regular	N/A	no
2	RESTROOM	N/A	Regular	Regular	no	no
11	MODULAR A	N/A	Regular	Regular	N/A	no
12	WARNER HUTN BLDG	N/A	Regular	Regular	N/A	no
13	CITY HALL/NEW WING	N/A	Regular	Regular	N/A	yes
14	THEATER	N/A	Regular	Regular	N/A	no
7	CONG SPR STRG	N/A	Regular	Regular	N/A	no
8	CONGSPR SCRKEEP	N/A	Regular	Regular	N/A	no

ID	Critical Facility	Structure Information	Irregularities-Plan View	Irregularities-Vertical	Structural Assessment	Retrofit
26	N. CAMPUS FELLOWSHIP	N/A	Irregular	Regular	N/A	no
25	N. CAMPUS ADMIN BLDNG	N/A	Regular	Regular	N/A	no
19	CARETAKER CTAGE	N/A	Regular	Regular	N/A	no
20	PUMPHOUSE	N/A	Regular	Regular	N/A	no
23	CULTURAL EXCHANG	N/A	Regular	Regular	N/A	no
24	HAKONE PK OFFICE	N/A	Regular	Regular	N/A	no
16	MAIN HOUSE/PARK	N/A	Regular	Regular	N/A	no
17	GRDN PRK/EXHIBIT	N/A	Regular	Regular	N/A	no
3	COMMUNITY CNTR	N/A	Regular	Regular	N/A	yes
4	CORP YARD	N/A	Regular	Regular	N/A	no
18	RESTROOM	N/A	Regular	Regular	N/A	no
21	STORAGE BLDG	N/A	Regular	Regular	N/A	no
22	GARAGE/GIFT SHOP	N/A	Regular	Regular	N/A	no
1	OLD LIBRARY	N/A	Regular	Regular	no	no
10	CITY HALL	N/A	Regular	Regular	N/A	yes
5	LIBRARY	RENOVATED IN 2003	Regular	Regular	N/A	yes
27	FIRE STATION/ADMIN OFF.	open,different size floors,4 door fire apparatus parking	Irregular	Irregular	No- new construction	no
ID	Critical Facility	Anchored Equipment	Alternate Power	Sprinklers	Roof Material	Year Built
15	MUSEUM	no	no	no	wood shakes	1920
9	CONCESSION/RSTRM	no	N/A	N/A	N/A	1970
6	PRK/RSTRM/SNKBR	yes	N/A	N/A	N/A	1986
2	RESTROOM	no	no	no	N/A	1972
11	MODULAR A	yes	no	no	N/A	1998
12	WARNER HUTN BLDG	yes	no	no	comp.	1900
13	CITY HALL/NEW WING	yes	yes	no	built-up	1992
14	THEATER	yes	yes	no	built-up	1964
7	CONG SPR STRG	no	N/A	N/A	N/A	N/A
8	CONGSPR SCRKEEP	no	N/A	N/A	N/A	N/A
26	N. CAMPUS FELLOWSHIP	no	no	no	cement tile	1971
25	N. CAMPUS ADMIN BLDNG	no	no	no	comp.	1963
19	CARETAKER CTAGE	no	no	no	N/A	1923
20	PUMPHOUSE	no	no	no	N/A	1960
23	CULTURAL EXCHANG	yes	no	no	wood shakes	1990
24	HAKONE PK OFFICE	no	no	no	N/A	1920
16	MAIN HOUSE/PARK	no	no	no	N/A	1917
17	GRDN PRK/EXHIBIT	no	no	no	N/A	1990
3	COMMUNITY CNTR	yes	no	yes	built-up	1968

ID	Critical Facility	Anchored Equipment	Alternate Power	Sprinklers	Roof Material	Year Built
4	CORP YARD	yes	yes	no	metal	1972
18	RESTROOM	no	no	no	N/A	1920
21	STORAGE BLDG	no	no	no	N/A	1940
22	GARAGE/GIFT SHOP	no	no	no	N/A	1920
1	OLD LIBRARY	no	no	no	tile	1927
10	CITY HALL	yes	yes	no	built-up	1970
5	LIBRARY	yes	yes	yes	wood (fire ret.)	2003
27	FIRE STATION/ADMIN OFF.	yes	yes	yes	80% tile/20% tar	2004

ID	Critical Facility	Stories	Capacity	Bldg Insured Value	Contents Insured Value	
15	MUSEUM	1	1245	222000	0	
9	CONCESSION/RSTRM	1	1158	110853	0	
6	PRK/RSTRM/SNKBR	0	540	158760	0	
2	RESTROOM	1	339	36383	0	
11	MODULAR A	1	1440	30000	0	
12	WARNER HUTN BLDG	1	1838	369000	0	
13	CITY HALL/NEW WING	1	4995	1035729	340673	
14	THEATER	1	7436	0	0	
7	CONG SPR STRG	0	0	23814	0	
8	CONGSPR SCRKEEP	0	0	16758	0	
26	N. CAMPUS FELLOWSHIP	N/A	N/A			
25	N. CAMPUS ADMIN BLDNG	N/A	N/A			
19	CARETAKER CTAGE	1	878	195000	0	
20	PUMPHOUSE	1	120	7938	0	
23	CULTURAL EXCHANG	1	2251	1164578	0	
24	HAKONE PK OFFICE	1	336	30165	0	
16	MAIN HOUSE/PARK	1	695	185220	5513	
17	GRDN PRK/EXHIBIT	1	1485	267908	4961	
3	COMMUNITY CNTR	1	18425	3308565	233730	
4	CORP YARD	1	11424	595000	37486	
18	RESTROOM	1	336	39690	0	
21	STORAGE BLDG	0	336	13561	0	
22	GARAGE/GIFT SHOP	1	640	13561	0	
1	OLD LIBRARY	1	1816	368150	0	
10	CITY HALL	1	7057	2694621	340674	
5	LIBRARY	1	19585	2369417	0	
27	FIRE STATION/ADMIN OFF.	2	13158	6000000	250000	

ID	Critical Facility	# of Dams	Wildland-Urban Interface Fire Threat	Wildfire Threat	FEMA Flood Zone	Tsunami
15	MUSEUM	0	Outside WUI hazard area	Moderate	Undetermined	Not Affected

ID	Critical Facility	# of Dams	Wildland-Urban Interface Fire		FEMA Flood	Tsunami
			Threat	Wildfire Threat	Zone	
9	CONCESSION/RSTRM	0	Outside WUI hazard area	Moderate	500 Year	Not Affected
6	PRK/RSTRM/SNKBR	0	Outside WUI hazard area	Moderate	500 Year	Not Affected
2	RESTROOM	0	Fire-threatened area	Moderate	500 Year	Not Affected
11	MODULAR A	0	Fire-threatened area	Moderate	100 Year	Not Affected
12	WARNER HUTN BLDG	0	Fire-threatened area	Moderate	100 Year	Not Affected
13	CITY HALL/NEW WING	0	Fire-threatened area	Moderate	100 Year	Not Affected
14	THEATER	0	Fire-threatened area	Moderate	100 Year	Not Affected
7	CONG SPR STRG	0	Outside WUI hazard area	Moderate	500 Year	Not Affected
8	CONGSPR SCRKEEP	0	Outside WUI hazard area	Moderate	500 Year	Not Affected
26	N. CAMPUS FELLOWSHIP	0	Outside WUI hazard area	Moderate	500 Year	Not Affected
25	N. CAMPUS ADMIN BLDNG	0	Outside WUI hazard area	Moderate	500 Year	Not Affected
19	CARETAKER CTAGE	0	Fire-threatened area	Moderate	100 Year	Not Affected
20	PUMPHOUSE	0	Fire-threatened area	Moderate	100 Year	Not Affected
23	CULTURAL EXCHANG	0	Fire-threatened area	Moderate	100 Year	Not Affected
24	HAKONE PK OFFICE	0	Fire-threatened area	Moderate	100 Year	Not Affected
16	MAIN HOUSE/PARK	0	Fire-threatened area	Moderate	100 Year	Not Affected
17	GRDN PRK/EXHIBIT	0	Fire-threatened area	Moderate	100 Year	Not Affected
3	COMMUNITY CNTR	0	Fire-threatened area	Moderate	500 Year	Not Affected
4	CORP YARD	0	Fire-threatened area	Moderate	500 Year	Not Affected
18	RESTROOM	0	Fire-threatened area	Moderate	100 Year	Not Affected
21	STORAGE BLDG	0	Fire-threatened area	Moderate	100 Year	Not Affected
22	GARAGE/GIFT SHOP	0	Fire-threatened area	Moderate	100 Year	Not Affected
1	OLD LIBRARY	0	Fire-threatened area	Moderate	500 Year	Not Affected
10	CITY HALL	0	Outside WUI hazard area	Moderate	100 Year	Not Affected
5	LIBRARY	0	Outside WUI hazard area	Moderate	100 Year	Not Affected
27	FIRE STATION/ADMIN OFF.	0	Fire-threatened area	Moderate	500 Year	Not Affected

ID	Critical Facility	Existing Landslide Areas	EQ-Induced Landslides	EQ Shake	Liquefaction	EQ-Induced Liquefaction
				Potential	Susceptibility	
15	MUSEUM	Surficial Deposits	Outside of CGS Landslide Zone	55	Moderate	Outside of CGS Liquefaction Zone
9	CONCESSION/RSTRM	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
6	PRK/RSTRM/SNKBR	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
2	RESTROOM	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
11	MODULAR A	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
12	WARNER HUTN BLDG	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
13	CITY HALL/NEW WING	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
14	THEATER	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
7	CONG SPR STRG	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
8	CONGSPR SCRKEEP	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
26	N. CAMPUS FELLOWSHIP	Surficial Deposits	Outside of CGS Landslide Zone	75	Moderate	Outside of CGS Liquefaction Zone

ID	Critical Facility	Existing Landslide Areas	EQ-Induced Landslides	EQ Shake Potential	Liquefaction Susceptibility	EQ-Induced Liquefaction
25	N. CAMPUS ADMIN BLDNG	Surficial Deposits	Outside of CGS Landslide Zone	75	Moderate	Outside of CGS Liquefaction Zone
19	CARETAKER CTAGE	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
20	PUMPHOUSE	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
23	CULTURAL EXCHANG	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
24	HAKONE PK OFFICE	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
16	MAIN HOUSE/PARK	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
17	GRDN PRK/EXHIBIT	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
3	COMMUNITY CNTR	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
4	CORP YARD	Surficial Deposits	Outside of CGS Landslide Zone	75	Low	Outside of CGS Liquefaction Zone
18	RESTROOM	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
21	STORAGE BLDG	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
22	GARAGE/GIFT SHOP	Mostly Landslide Area	Outside of CGS Landslide Zone	85	Very Low	Outside of CGS Liquefaction Zone
1	OLD LIBRARY	Surficial Deposits	Outside of CGS Landslide Zone	85	Low	Outside of CGS Liquefaction Zone
10	CITY HALL	Surficial Deposits	Mapping in Progress	85	Moderate	Mapping in Progress
5	LIBRARY	Surficial Deposits	Mapping in Progress	85	Moderate	Mapping in Progress
27	FIRE STATION/ADMIN OFF.	Surficial Deposits	Outside of CGS Landslide Zone	85	Low	Outside of CGS Liquefaction Zone
ID	Critical Facility	Sea Level Rise 16"	Sea Level Rise 55"			
15	MUSEUM	Not Affected	Not Affected			
9	CONCESSION/RSTRM	Not Affected	Not Affected			
6	PRK/RSTRM/SNKBR	Not Affected	Not Affected			
2	RESTROOM	Not Affected	Not Affected			
11	MODULAR A	Not Affected	Not Affected			
12	WARNER HUTN BLDG	Not Affected	Not Affected			
13	CITY HALL/NEW WING	Not Affected	Not Affected			
14	THEATER	Not Affected	Not Affected			
7	CONG SPR STRG	Not Affected	Not Affected			
8	CONGSPR SCRKEEP	Not Affected	Not Affected			
26	N. CAMPUS FELLOWSHIP	Not Affected	Not Affected			
25	N. CAMPUS ADMIN BLDNG	Not Affected	Not Affected			
19	CARETAKER CTAGE	Not Affected	Not Affected			
20	PUMPHOUSE	Not Affected	Not Affected			
23	CULTURAL EXCHANG	Not Affected	Not Affected			
24	HAKONE PK OFFICE	Not Affected	Not Affected			
16	MAIN HOUSE/PARK	Not Affected	Not Affected			
17	GRDN PRK/EXHIBIT	Not Affected	Not Affected			
3	COMMUNITY CNTR	Not Affected	Not Affected			
4	CORP YARD	Not Affected	Not Affected			
18	RESTROOM	Not Affected	Not Affected			
21	STORAGE BLDG	Not Affected	Not Affected			

ID	Critical Facility	Sea Level Rise 16"	Sea Level Rise 55"			
22	GARAGE/GIFT SHOP	Not Affected	Not Affected			
1	OLD LIBRARY	Not Affected	Not Affected			
10	CITY HALL	Not Affected	Not Affected			
5	LIBRARY	Not Affected	Not Affected			
27	FIRE STATION/ADMIN OFF.	Not Affected	Not Affected			

Appendix C – Geologic and Seismic Hazards Constraints Mapping (Awaiting completion by the City's Consultant)

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