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SANTA CLARA COUNTY OPERATIONAL AREA HAZARD MITIGATION PLAN

VOLUME 2 – PLANNING PARTNERSHIP ANNEXES



Office of Emergency Services
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INTRODUCTION

BACKGROUND

Region IX of the Federal Emergency Management Agency (FEMA) and the California Office of Emergency Services (CalOES) both encourage multi-jurisdictional planning for hazard mitigation. Such planning efforts require all participating jurisdictions to fully participate in the process and formally adopt the resulting planning document. Chapter 44 of the Code of Federal Regulations (44 CFR) states:

“Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan.”
(Section 201.6.a(4))

For the Santa Clara Operational Area Hazard Mitigation Plan, a Planning Partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act (DMA) for as many eligible local governments as possible. The DMA defines a local government as follows:

“Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.”

Two types of Planning Partners participated in this process, with distinct needs and capabilities:

- Incorporated municipalities (cities, towns and the County)
- Special purpose districts.

Each participating planning partner has prepared a jurisdiction-specific annex to this plan. These annexes, as well as information on the process by which they were created, are contained in this volume.

THE PLANNING PARTNERSHIP

INITIAL SOLICITATION AND LETTERS OF INTENT

The planning team solicited the participation of all eligible municipalities and special purpose districts at the outset of this project. A kickoff meeting was held on July 19, 2016 to identify potential stakeholders and planning partners for this process. The purpose of the meeting was to introduce the planning process to jurisdictions in the County that could have a stake in the outcome of the planning effort. All eligible local governments within the planning area were invited to attend. The goals of the meeting were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Describe the reasons for a plan.
- Outline the hazard mitigation work plan.
- Outline planning partner expectations.
- Seek commitment to the planning partnership.
- Seek volunteers for the working group.

All interested local governments were provided with a list of planning partner expectations developed by the planning team and were informed of the obligations required for participation. Local governments wishing to join the planning effort were asked to provide the planning team with a “letter of intent to participate” that agreed to the planning partner expectations (see Appendix A) and designated a point of contact for their jurisdiction. In all, formal commitment was received from 17 planning partners by the planning team. Maps for each participating municipality are provided in the individual annex for that municipality in this volume.

PLANNING PARTNER EXPECTATIONS

The planning team developed the following list of planning partner expectations, which were confirmed at the kickoff meeting held on July 19, 2016:

1. Each partner will submit a “Letter of Intent to participate.”
2. Each partner will designate a lead point of contact for the effort.
3. Each partner will support and participate in the selection and function of the Steering Committee selected to oversee the development of this plan.
4. Each partner will provide support in the form of mailing list, possible meeting space, and public information materials, such as newsletters, newspapers or direct mailed brochures, required to implement the public involvement strategy developed by the Steering Committee.
5. Each partner will participate in the process through opportunities such as:
 - a. Steering Committee meetings
 - b. Public meetings or open houses
 - c. Workshops and planning-partner-specific training sessions
 - d. Public review and comment periods prior to adoption
6. Each partner will attend the *mandatory* workshop. This workshop will cover the proper completion of the jurisdictional annex template, which is the basis for each partner’s jurisdictional chapter in the plan.
7. After participation in the mandatory template workshop, each partner will be required to complete their template and provide it to the planning team in the time frame established by the Steering Committee.
8. Each partner will perform a “consistency review” of all its technical studies, plans, ordinances specific to hazards to identify any that are inconsistent equivalent countywide documents reviewed in the preparation of the countywide plan.
9. Each partner will review the risk assessment and identify hazards and vulnerabilities specific to its jurisdiction.
10. Each partner will review the mitigation recommendations in the countywide plan to determine if they meet the needs of its jurisdiction.

11. Each partner will create its own action plan that identifies each project, who will oversee its implementation, how it will be financed and when it is estimated to occur.
12. Each partner will sponsor at least one public meeting to present the draft plan to its constituents at least two weeks prior to adoption.
13. Each partner will formally adopt the plan.

By adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. Failure to meet these criteria may result in a partner being dropped from the partnership by the Steering Committee, and thus losing eligibility under the scope of this plan.

LINKAGE PROCEDURES

Eligible local jurisdictions that did not participate in development of this multi-jurisdictional plan may comply with DMA requirements by linking to this plan following the procedures outlined in Appendix B.

ANNEX-PREPARATION PROCESS

TEMPLATES

Templates were created to help the Planning Partners prepare their jurisdiction-specific annexes. Since special purpose districts operate differently from incorporated municipalities, separate templates were created for the two types of jurisdictions. The templates were created so that all criteria of Section 201.6 of 44 CFR would be met, based on the partners' capabilities and mode of operation. Templates available for the planning partners' use were specific as to whether the partner is a municipality or a special purpose district and whether the annex is an update to a previous hazard mitigation plan or a first-time hazard plan. Each partner was asked to participate in a technical assistance workshop during which key elements of the template were completed by a designated point of contact for each partner and a member of the planning team. The templates were set up to lead each partner through a series of steps that would generate the DMA-required elements that are specific for each partner. The template instructions provided to the Planning Partners can be found in Appendix C to this volume.

WORKSHOP

Workshops were held for Planning Partners to address the following topics:

- DMA
- Local plan background
- Analysis of public survey results
- The templates
- Risk ranking
- Developing your action plan
- Cost/benefit review.

The sessions provided technical assistance and an overview of the template completion process. Attendance at this workshop was mandatory under the planning partner expectations established by the Planning Team. There was 100-percent attendance of the partnership at these sessions.

In the risk-ranking exercise, each planning partner was asked to rank each risk specifically for its jurisdiction, based on the impact on its population or facilities. Municipalities were asked to base this ranking on probability of occurrence and the potential impact on people, property and the economy. Special purpose districts were asked to base this ranking on probability of occurrence and the potential impact on their constituency, their vital facilities and the facilities' functionality after an event. The methodology followed that used for the countywide risk ranking presented in Volume 1. A principal objective of this exercise was to familiarize the partnership with how to use the risk assessment as a tool to support other planning and hazard mitigation processes. Tools utilized during these sessions included the following:

- The risk assessment results developed for this plan
- Hazard maps for all hazards of concern
- Hazard mitigation catalogs
- Federal funding and technical assistance catalogs
- Copies of partners' prior annexes, if applicable.

PRIORITIZATION

44 CFR requires actions identified in the action plan to be prioritized (Section 201.c.3.iii). The planning team and steering committee developed a methodology for prioritizing the action plans that meets the needs of the partnership and the requirements of 44 CFR. Each action was assigned two priorities – a priority for implementation and a priority for pursuing grant funding – according to the following criteria:

- Implementation Priority:
 - **High Priority** – An action that meets multiple objectives, that has benefits that exceed cost, that is eligible for grant funding and funding has been secured or it is an ongoing project, and that can be completed in the short term (1 to 5 years).
 - **Medium Priority** – An action that meets multiple objectives, that has benefits that exceed costs, that is eligible for grant funding but funding has not yet been secured, and that can be completed in the short term (1 to 5 years) once funding is secured. Medium priority actions become high priority actions once funding is secured.
 - **Low Priority** – An action that will mitigate the risk of a hazard, that has benefits that do not exceed the costs or are difficult to quantify, that is not eligible for any identified grant funding and funding has not been secured, and for which the timeline for completion is long term (more than 5 years). Low priority actions may be eligible for grant funding from programs that have not yet been identified.
- Grant Pursuit Priority:
 - **High Priority** – An action that meets grant eligibility requirements, that has high benefits, that has a high or medium implementation priority, and for which one of the following funding conditions is true:
 - Local funding is unavailable
 - Local funding is available but could be used for other, non-grant-eligible projects if grant funding is received for this action.

- **Medium Priority** – An action that meets grant eligibility requirements, that has medium or low benefits, that has a medium or low implementation priority, and for which local funding is unavailable.
- **Low Priority** – An action that does not meet grant eligibility requirements or has low benefits.

Priority designations for a given action can change based on changes to any parameter, such as funding availability. The prioritization will be updated as needed annually through the plan maintenance strategy.

BENEFIT/COST REVIEW

44 CFR requires the prioritization of the action plan to emphasize a benefit/cost analysis of the proposed actions. Because some actions may not be implemented for up to 10 years, benefit/cost analysis was qualitative and not of the detail required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) grant program. A review of the apparent benefits versus the apparent cost of each project was performed. Parameters were established for assigning subjective ratings (high, medium, and low) to costs and benefits as follows:

Cost ratings were defined as follows:

- **High** – Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
- **Medium** – The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
- **Low** – The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.

Benefit ratings were defined as follows:

- **High** – Project will provide an immediate reduction of risk exposure for life and property.
- **Medium** – Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
- **Low** – Long-term benefits of the project are difficult to quantify in the short term.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly.

For many of the actions identified in this plan, financial assistance may be available through Hazard Mitigation Assistance grants, all of which require detailed benefit/cost analyses. These analyses will be performed on projects at the time of application using the FEMA benefit-cost model. For projects not seeking financial assistance from grant programs that require detailed analysis, “benefits” can be defined according to parameters that meet the goals and objectives of this plan.

ANALYSIS OF MITIGATION ACTIONS

Each planning partner reviewed its recommended actions to classify each action based on the hazard it addresses and the type of mitigation it involves. This planning process used the Community Rating

System (CRS) categories of mitigation activities (2017 *CRS Coordinators Manual* (OMB No. 1660-0022), Figure 510-4). The CRS credits programs and activities that are considered to be above and beyond the minimum requirements established by FEMA. These CRS categories add significantly more detail to the four mitigation categories defined in FEMA’s 2013 *Local Mitigation Handbook*. The CRS expanded categories provide a more comprehensive range of alternatives to consider, thus increasing integration opportunities. Additionally, the use of CRS program guidance will enhance the CRS credit potential for this plan, benefiting planning partners who participate in the CRS program. Mitigation types used for this categorization are as follows:

- **Prevention** – Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
- **Property Protection** – Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
- **Public Education and Awareness** – Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
- **Natural Resource Protection** – Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- **Emergency Services** – Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
- **Structural Projects** – Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.
- **Climate Resilient** – Actions that minimize the impacts of climate change via an aquifer storage and recovery system to increase water supply for drought mitigation and a flood diversion and storage project to reduce flood risk.

COMPATIBILITY WITH PREVIOUSLY APPROVED PLANS

The jurisdictions listed in Table 1 previously participated in the Association of Bay Area Governments (ABAG) regional hazard mitigation planning effort. The table lists the dates that each of these jurisdictions adopted its annex under the ABAG plan. The City of Los Altos and the City of San José may have participated in the plan, but no actions were identified and no proof of formal adoption was located.

Table 1. ABAG Participants - 2010

Jurisdiction	Jurisdiction Adoption Date (2010 ABAG)
Santa Clara County	February 7, 2012
City of Campbell	March 19, 2012
City of Cupertino	Unavailable (listed as approval pending adoption on plan website)
City of Gilroy	January 9, 2012

Jurisdiction	Jurisdiction Adoption Date (2010 ABAG)
Town of Los Altos Hills	2014 (annex to plan was developed in 2013)
Town of Los Gatos	February 21, 2012
City of Monte Sereno	September 20, 2011
City of Morgan Hill	March 21, 2012
City of Mountain View	February 28, 2012
City of Palo Alto	Unavailable (listed as approval pending adoption on plan website)
City of Santa Clara	Unavailable
City of Saratoga	February 15, 2012
City of Sunnyvale	Unavailable

The ABAG plan identified over 300 regional strategies in the following categories:

- Infrastructure
- Health
- Housing
- Economy
- Government
- Education
- Land Use.

Planning partners selected some of these strategies for implementation and included them in their annexes to the plan. The progress on these strategies has been reviewed and is included in Appendix D of Volume 2 of this plan. Each strategy was determined to be completed, was removed or was carried over to this plan update.

FINAL COVERAGE UNDER THE PLAN

All of the committed planning partners fully met the participation requirements specified by the Planning Team and agreed to by the Planning Partnership. Table 2 lists the jurisdictions that submitted letters of intent and their ultimate status in this plan.

	Letter of Intent Date	Attended Workshop?	Completed Template?	Covered by This Plan?
County of Santa Clara	August 1, 2016	Yes	Yes	Yes
City of Campbell	July 22, 2016	Yes	Yes	Yes
City of Cupertino	July 25, 2016	Yes	Yes	Yes
City of Gilroy	August 9, 2016	Yes	Yes	Yes
City of Los Altos	July 25, 2016	Yes	Yes	Yes
Town of Los Altos Hills	July 28, 2016	Yes	Yes	Yes
Town of Los Gatos	July 21, 2016	Yes	Yes	Yes
City of Milpitas	July 25, 2016	Yes	Yes	Yes
City of Monte Sereno	August 27, 2015	Yes	Yes	Yes

	Letter of Intent Date	Attended Workshop?	Completed Template?	Covered by This Plan?
City of Morgan Hill	August 1, 2016	Yes	Yes	Yes
City of Mountain View	August 14, 2016	Yes	Yes	Yes
City of Palo Alto	July 28, 2015	Yes	Yes	Yes
City of San José	August 3, 2016	Yes	Yes	Yes
City of Santa Clara	August 2, 2016	Yes	Yes	Yes
City of Saratoga	July 21, 2016	Yes	Yes	Yes
City of Sunnyvale	August 11, 2016	Yes	Yes	Yes
Santa Clara County Fire Department	August 1, 2016	Yes	Yes	Yes

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The County and the unincorporated areas have sought exemption from the California Environmental Quality Act (CEQA) for the Hazard Mitigation Plan based on four sections of the CEQA guidelines:

- **Section 15183(d)** – “The project is consistent with...a general plan of a local agency, and an environmental impact report was certified by the lead agency for the...general plan.”
- **Section 15262** – “A project involving only feasibility or planning studies for possible future actions which the agency, board or commission has not approved, adopted, or funded does not require the preparation of an environmental impact report or negative declaration but does require consideration of environmental factors. This section does not apply to the adoption of a plan that will have a legally binding effect on later activities.”
- **Section 15306** – “(Categorical Exemption) Class 6 consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted or funded.”
- **Section 15601(b)(3)** – “...CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.”

Planning partners may seek exemption at their discretion.

ACRONYMS AND ABBREVIATIONS

- **AB 1420** – Assembly Bill 1420 Urban Water Management Planning Act
- **AB 2140** – Assembly Bill 2140 General Plans: Safety Element
- **ABAG** – Association of Bay Area Governments
- **AlertSCC** – Santa Clara County Emergency Alert System
- **ARES/RACES** – Amateur Radio Emergency Service/radio Amateur Civil Emergency Services
- **BCEGS** – Building Code Effectiveness Grading Schedule
- **CalFire** – State of California Department of Forestry and Fire Protection
- **CalOES** – State of California Office of Emergency Services
- **CalWARN** – California Water/Wastewater Agency Response Network

- **CDBG** – Community Development Block Grants
- **CEMP** – Comprehensive Emergency Management Plan
- **CEQA** – California Environmental Quality Act
- **CERT** – Citizens Emergency Response Training
- **CFR** – Code of Federal Regulations
- **CIP** – Capital Improvement Plan
- **CIPR** – Capital Improvement Project Reserve
- **CRS** – Community Rating System
- **CUPA** – Certified Unified Program Agencies
- **CWOP** – Closed without Payment
- **CWPP** – Community Wildfire Protection Plan
- **DMA** – Disaster Mitigation Act
- **DR** – Major Disaster Declaration
- **DPW** – Department of Public Works
- **EMPG** – Emergency Management Performance Grant
- **EOC** – Emergency Operations Center
- **EOP** – Emergency Operations Plan
- **ESD** – Environmental Services Department
- **ETS** – Engineering and Technology Services
- **FEMA** – Federal Emergency Management Agency
- **FIT** – Facility Inspection Tool
- **FMA** – Flood Mitigation Assistance
- **GHG** – Greenhouse gas
- **GIS** – Geographic Information System
- **HCP** – Habitat conservation plan
- **HMA** – Hazard Mitigation Assistance
- **HMGP** – Hazard Mitigation Grant Program
- **HSGP** – Homeland Security Grant Program
- **ISD** – Information Services Department (Santa Clara County)
- **LHMP** – Local hazard mitigation plan
- **NCCP** – Natural community conservation plan
- **NFIP** – National Flood Insurance Program
- **NPDES** – National Pollution Discharge Elimination System
- **OES** – Office of Emergency Services
- **PDM** – Pre-Disaster Mitigation Grant Program
- **POC** – Point of Contact
- **PSAP** – Public-safety answering point
- **RWQCB** – Regional Water Quality Control Board
- **SCADA** – Supervisory control and data acquisition
- **SCC** – Santa Clara County
- **SCCFD** – Santa Clara County Fire Department
- **SCVWD** – Santa Clara Valley Water District
- **SFPUC** – San Francisco Public Utilities Commission
- **UASI** – Urban Area Security Initiative
- **URM** – Unreinforced Masonry

- **USC** – United States Code
- **USGS** – U.S. Geological Survey
- **UWMP** – Urban Water Management Plan
- **WUI** – Wildland Urban Interface

1. COUNTY OF SANTA CLARA

1.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

David Flamm, Deputy Director OES
 55 West Younger Avenue
 San José, CA 95110
 Telephone: - (408)808-7802
 e-mail Address: david.flamm@oes.sccgov.org

Alternate Point of Contact

Darrell Ray, Emergency Manager
 55 West Younger Avenue
 San José, CA 95110
 Telephone: - (408)808-7814
 e-mail Address: darrell.ray@oes.sccgov.org

1.2 JURISDICTION PROFILE

The following is a summary of key information about the jurisdiction and its history:

- **Date of Incorporation** – February 18, 1850
- **Current Population** – The California Department of Finance estimated population for the unincorporated area of the county is 87,352 as of January 1, 2016. The unincorporated population comprises 4.5 percent of the County population.
- **Population Growth** – The California Department of Finance estimated an increase in the unincorporated population from 2015 (87,029) to 2016 (87,352) of 0.4 percent. Table 1-1 shows the California Department of Finance decennial population statistics for Santa Clara County from 1980 through 2010, with the percent change of the previous decades from 1990 to 2010.

Table 1-1. Population Statistics for Santa Clara County from 1980 through 2010

Year	Total County		Incorporated Cities		Unincorporated County	
	Population	% Change from Previous Decade	Population	% Change from Previous Decade	Population	% Change from Previous Decade
1980	1,295,071	–	1,168,117	–	126,954	–
1990	1,497,577	15%	1,391,404	19%	106,173	-16%
2000	1,682,585	12%	1,582,772	14%	99,813	-6%
2010	1,781,642	6%	1,691,716	7%	89,926	-10%

Source: California Department of Finance

- **Location and Description** – A significant portion of the county's land area is unincorporated ranch and farmland. Large areas of unincorporated rural areas lie to the east, west and south of the county. Mt. Hamilton is within the Diablo Range which lines the eastern border of the County: the Santa Cruz Mountains lie along the west. Within the Santa Cruz Mountains are steep slopes, active earthquake faults, and redwood forests. Both mountain ranges have areas of geologic instability. The County of Santa Clara operates 28 parks covering more than 50,000 acres including scenic lakes, streams, and miles of hiking and biking trails, primarily in these open lands.

The Santa Clara County Public Health Department has defined the cities and small areas/neighborhoods in the unincorporated areas of the county to better enable reporting data for smaller populations within cities and pre-existing neighborhoods (See Figure 1-1). The **Unincorporated Areas Small Area/Neighborhood Profiles** include:

- Bayshore – This area lies to the northeast, bordered by Sunnyvale and Mountain View. Moffit Federal Airfield inhabits most of this area, with a residential area west of the airfield. The population in this small area is 719. 100 percent of households in Bayshore are occupied by renters. The median household income is \$77,778.
- Unincorporated East – This area lies along the eastern border of the county. The population in this area is 1,144. Households occupied by renters is 27 percent. The median household income is \$41,162.
- Unincorporated South – This area lies along the southern border of the county, bordered by the city of Gilroy to the west, and Morgan Hill to the northwest. The population in this area is 12,946. Households occupied by renters is 26 percent. The median household income is \$89,423.
- Unincorporated West – This area lies along the western border of the county. The population in this area is 11,032. Households occupied by renters is 20 percent. The median household income is \$98,362.

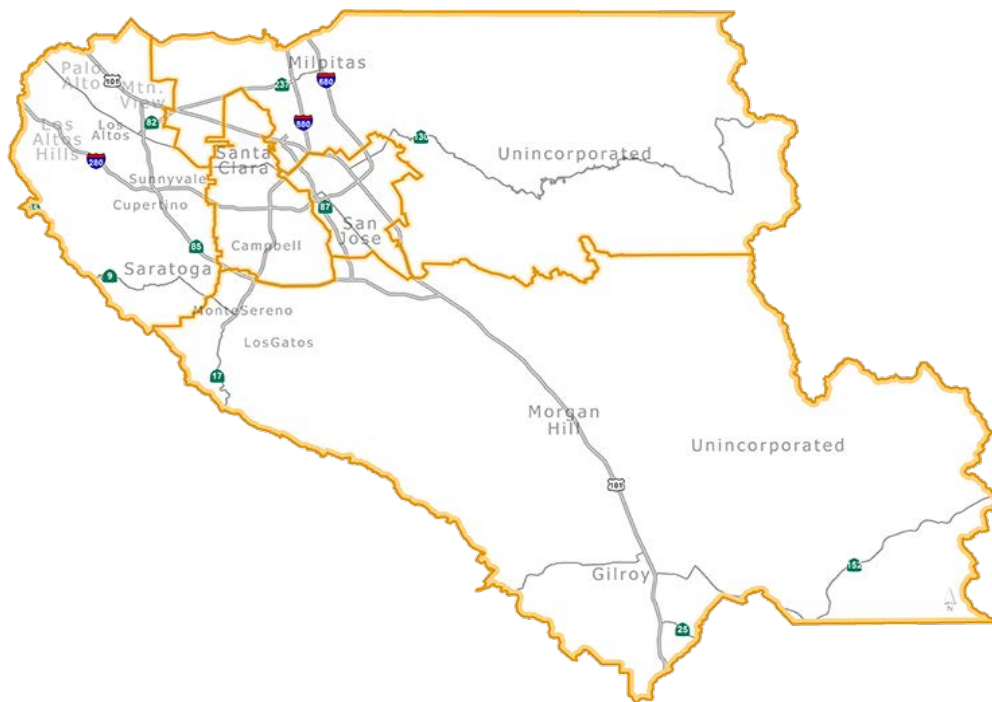


Figure 1-1. Unincorporated Areas Small Area/Neighborhoods

- **Brief History** – The County of Santa Clara is one of 27 original county jurisdictions when California became a state. The seat of California’s first capital city, San José, is in the county of Santa Clara. The county is named after Mission Santa Clara, which was established in 1777. The first inhabitants of the greater Santa Clara Valley were members of the Ohlone or Costanoan cultural group. A number of Ohlone tribes occupied the southern portions of the San Francisco Bay area.

During the Spanish and Mexican Periods (1776-1848) the Santa Clara Valley was established as Spain's new world colony. The El Camino Real (King's Highway) was the major transportation route that linked the Franciscan missions and outposts that were being developed during this period. The pueblo at San José was the first civil settlement established by the Spanish Crown. With Mexico's new independence, and the formal change of governmental control from Spain to Mexico in 1822. The Mexican government brought about the legalization of trade with foreign ships in the ports of San Francisco and Monterey, and a law for the settlement of private land grants to local residents for a "rancho" to stimulate colonization of the territory. Dwellings were built on the ranchos and soon villages were developed. By 1845, American immigrants were increasing the population and establishing businesses within the valley. The American presence in San José was rapidly changing the character of the pueblo from a Mexican village to a bustling American town.

In May 1846, the United States declared war on Mexico; and shortly thereafter, the American flag was raised in Monterey and San José. California statehood was achieved in 1850. The discovery of gold in 1848 brought settlers and the making of towns to the valley. Part of the county's territory was given to Alameda County in 1853. In 1882, Santa Clara County tried to levy taxes upon property of the Southern Pacific Railroad within county boundaries. The result was the U.S. Supreme Court case of Santa Clara County v. Southern Pacific Railroad, 118 U.S. 394 (1886), in which the Court extended Due Process rights to artificial legal entities. The mid-1800s saw houses, hotels, schoolhouses, and businesses established. Early businesses were a variety of manufacturing, seed, and fruit industries. Many businesses generated in the late 1800s remained viable through the early to mid-1900s: tannery and leather products, vegetable and fruit seed farms, wood products such as lumber, mill work, sashes, doors, and moldings, and canned fruits, for example. In 1939, San José had a population of 57,651, and had the largest packing center for dried fruit and canning in the world. The first major technology company to be based in the area was Hewlett-Packard, founded in a garage in Palo Alto in 1939. IBM selected San José as its West Coast headquarters in 1943. Varian Associates, Fairchild Semiconductor, and other early innovators were located in the county by the late 1940s and 1950s. The U.S. Navy had a large presence in the area and began giving large contracts to Silicon Valley electronics companies. The term "Silicon Valley" was coined in 1971. The trend accelerated in the 1980s and 1990s, and agriculture has since then been nearly eliminated from the northern part of the county.

- **Climate** – The climate in Santa Clara County is described as Mediterranean, characterized by warm, dry summers and mild winters. The climate of the region remains temperate year round due to the area's geography and its proximity to the Pacific Ocean. The temperature seldom drops below freezing. The fall and winter months have daily high temperatures that range from 55 to 77 degrees Fahrenheit. The summer months have dry warm weather with a range of high temperatures between 65 and 82 degrees Fahrenheit. The average rainfall in the county is 15 inches in San José and approximately 40 inches in the Santa Cruz Mountains.
- **Governing Body Format** – The governing body of the county is a five member board of supervisors, elected by voters in each district to serve four year terms on the County Council. The Council hires a professional Chief Executive Officer (CEO), Chief Operating Officer (COO), and six Deputy CEO's. The County of Santa Clara provides services to its residents either directly or by working with other agencies. The County directly provides administrative services, building permits/inspections, planning/design review, engineering/public works, city clerk/election

services and finance. The county is one among three counties in California (with Napa and Madera) to establish a separate department, the Santa Clara County Department of Corrections, to deal with corrections pursuant to California Government Code §23013. In the United States House of Representatives, Santa Clara County is split between four congressional districts.

The County Charter is a legislative document adopted by the people of the County of Santa Clara. The Charter provides for the creation of the County and defines its powers and privileges and facilitates the governing of the County. The County Council assumes responsibility for the adoption of this plan; the Office of Emergency Service will oversee its implementation.

1.3 DEVELOPMENT TRENDS

Within Santa Clara County, and the bay area region, there is a housing shortage. From 2007 through 2014, 999 housing units were projected to be produced in the County. This falls within 10 percent below the projected need (1,090) of housing for the period. The County of Santa Clara revised the General Plan Housing Element in June 2015. The most significant changes to the strategies and policies are increased focus on Extremely Low Income families, Permanent Supportive Housing, Secondary Units, and Farmworker housing. The Housing Element states “Funding programs will prioritize housing for households with extremely low incomes (as opposed to households with low or moderate incomes), secondary units will be the focus of efforts to reduce regulatory constraints, more collaborative efforts will be pursued, and the housing needs of farmworkers and the homeless will get increased attention.”

From 1970-2010, the unincorporated population decreased by 37 percent due to the urban unincorporated islands or “pockets” being annexed into their surrounding cities, while the total County population increased by nearly 67 percent. The policy of cities annexing the unincorporated areas around them reinforces the role of cities to plan for and accommodate new urban development. As a result, cities are accorded the opportunities and responsibilities for new housing or infill redevelopment.

The unincorporated County population is expected to be stable during the 2015-2022 planning period, as large-scale annexations connected with the State’s Streamlined Annexation Incentive Program are expected to decrease throughout the time period. As a result, there is a relatively small amount of housing construction in the unincorporated County. The slowing construction of housing units on unincorporated County lands reflects the Countywide policies for compact growth occurring within city boundaries near urban infrastructure, as well as ongoing annexations. Table 1-2 summarizes development trends in the performance period since development of the previous hazard mitigation plan and expected future development trends.

1.4 CAPABILITY ASSESSMENT

1.4.1 RESOURCES FOR THE 2017 PLANNING INITIATIVE

The following technical reports, plans, and regulatory mechanisms were reviewed to inform the 2017 Multi-Jurisdiction Hazard Mitigation Plan for both Volume I and Volume II (Unincorporated County Annex). All of the below items were additionally reviewed as part of the full capability assessment for the Unincorporated County Area.

- **Santa Clara County General Plan** – The General Plan, including the Housing Element, Land Use, and Safety Elements, were reviewed for information regarding the jurisdiction profile, and the goals and policies consistent with hazard mitigation for carry over as goals and objectives.
- **Santa Clara County Municipal Code** – The Municipal Code was reviewed for the jurisdiction profile, the full capability assessment, and for identifying opportunities for action plan integration.
- **Floodplain Management Ordinance** – The Floodplain Management Ordinance was reviewed for compliance with the National Flood Insurance Program.
- **Capital Improvement Plan** – The Capital Improvement Plan was reviewed to identify cross-planning initiatives for inclusion as mitigation projects.
- **Technical Reports and Information** – Outside resources and references used to complete the Santa Clara County - Unincorporated Annex are identified in Section 2.12 of this Annex.

Table 1-2. Recent and Expected Future Development Trends

Criterion	Response					
Has your jurisdiction annexed any land since the development of the previous hazard mitigation plan? • If yes, give the estimated area annexed and estimated number of parcels or structures.	No					
Is your jurisdiction expected to annex any areas during the performance period of this plan? • If yes, please describe land areas and dominant uses. • If yes, who currently has permitting authority over these areas?	N/A					
Are any areas targeted for development or major redevelopment in the next five years? • If yes, please briefly describe, including whether any of the areas are in known hazard risk areas	Yes This is currently in planning stages.					
How many building permits were issued in your jurisdiction since the development of the previous hazard mitigation plan?		2011	2012	2013	2014	2015
	Single Family	37	39	59	46	49
	Multi-Family	0	0	2	1	1
	Other (commercial, mixed use, etc.)	4	4	8	3	12
Please provide the number of permits for each hazard area or provide a qualitative description of where development has occurred.	Special Flood Hazard Areas- 24 Landslide- 99 High Liquefaction Areas- 45 Tsunami Inundation Area - 0 Wildfire Risk Areas - 126					
Please describe the level of buildout in the jurisdiction, based on your jurisdiction's buildable lands inventory. If no such inventory exists, provide a qualitative description.	County growth policies focus on higher density, infill development occurring in cities.					

1.4.2 FULL CAPABILITY ASSESSMENT

An assessment of legal and regulatory capabilities is presented in Table 1-3. An assessment of fiscal capabilities is presented in Table 1-4. An assessment of administrative and technical capabilities is presented in Table 1-5. Information on National Flood Insurance Program (NFIP) compliance is

presented in Table 1-6. An assessment of education and outreach capabilities is presented in Table 1-7. Classifications under various community mitigation programs are presented in Table 1-8. Development and permitting capabilities are presented in Table 1-9, and the community’s adaptive capacity for the impacts of climate change is presented in Table 1-10.

Table 1-3. Legal and Regulatory Capability				
	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Codes, Ordinances, & Requirements				
Building Code	Yes	No	Yes	No
<i>Comment: The Santa Clara County building code is the 2013 California Building Code, including the Building Standards Administrative Code, Building Code, Volumes 1 & 2, Residential Code, Electrical Code, Mechanical Code, Plumbing Code, Energy Code, Historical Building Code, Fire Code, Existing Building Code, Green Building Standards Code, and Referenced Standards Code; incorporated by reference (Ord. No. NS-1100.117, § 3, 12-10-13).</i>				
Zoning Code	Yes	No	Yes	No
<i>Comment: Zoning Ordinance of the County of Santa Clara, establishing regulations limiting the use of land and structures; Articles 1 through 5, (Ord. No. NS-1200.317, § 18, 6-8-04).</i>				
Subdivisions	Yes	No	Yes	No
<i>Comment: Santa Clara County Subdivision Ordinance, regulating the subdivision of land in the unincorporated areas in accordance with the Subdivision Map Act (Government Code § 66410 et seq.), (Ord. No. NS-1203.35, § 4, 3-13-78).</i>				
Stormwater Management	Yes	No	Yes	Yes
<i>Comment: The Nonpoint Source Pollution Ordinance was established to protect the health and safety of individuals in the County of Santa Clara and reduce surface water quality degradation caused by stormwater runoff, (Ord. No. NS-517.84, 6-25-13).</i>				
Post-Disaster Recovery	Yes	Yes	No	Yes
<i>Comment: Draft recovery framework was completed in Fall 2016. Final draft framework projected to be published within the next 12 months. Draft framework does currently address mitigation integration opportunities.</i>				
Real Estate Disclosure	No	No	Yes	Yes
<i>Comment: CA. State Civil Code 1102 requires full disclosure on natural hazard exposure of the sale/re-sale of any and all real property. **Further investigation needed on this matter.</i>				
Growth Management	Yes	No	Yes	No
<i>Comment: California State Growth Management – General Planning Law - Cal. Gov. Code §65300 et seq.</i>				
Site Plan Review	Yes	No	Yes	Yes
<i>Comment: Title C: Construction, Development, and Land Use, Chapter II Single Building Sites provides requirements for site development plans and site plan reviews, (Ord. No. NS-1203.35, § 5, 3-13-78).</i>				
Environmental Protection	Yes	No	Yes	Yes
<i>Comment: Title C: Construction, Development, and Land Use, Chapter III grading and Drainage provides requirements for protecting environmentally sensitive areas on or near the site, such as creeks, streams, wetlands, lakes, springs, trees, and riparian habitat that could be affected by the grading (Ord. No. NS-1203.120, § 1, 4-9-13). The California Environmental Quality Act (CEQA) also outlines requirements for environmental protection. Riparian Setback Ordinance for San Martin Area: Yes. The Riparian Setback requirements for new development in the San Martin area reduce the likelihood of the release of stormwater pollutants to local waterway. [See new (March 2016) setback ordinance. https://www.municode.com/library/ca/santa_clara_county/codes/code_of_ordinances?nodeId=TITBRE_DIVB11.5NOSOP_O_CHVIISTRIVEPRSAMAAR]</i>				
Flood Damage Prevention	No	Yes	Yes	No

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Comment: Floodplain Management Ordinance reflects updates to floodplain management policies affecting real property located in designated flood hazard areas of the unincorporated territory of Santa Clara County, (Ord. No. NS-1100.106, § 1, 4-21-09).				
Emergency Management	Yes	No	Yes	Yes
Comment: The Emergency Services Ordinance provides for the protection of persons and property within the County of Santa Clara in the event of an emergency; the establishment, coordination, and direction of the Santa Clara County Emergency Organization, Disaster Council, Office of Emergency Services; and the coordination of the County with all other public agencies, corporations, organizations and affected private persons, (Ord. No. NS-300.600, § 2, 5-13-97).				
Climate Change	Yes	No	Yes	Yes
Comment: SB 97 directs California Environmental Quality Act (CEQA) Guidelines to address greenhouse gas emissions. Other state policies include AB 32, SB 375, SB 379 and regulations of the Climate Action Plan.				
Other: Fire Code	Yes	No	No	Yes
Comment: The fire code of the County is the 2013 California Fire Code, based on the International Fire Code (2012 Edition), modified by the California Building Standards Commission, (Ord. No. NS-1100.117, § 1, 12-10-13.)				
Other: Santa Clara County Geologic Ordinance	Yes	No	Yes	No
Comment: The Geologic Ordinance is for the purpose of establishing minimum requirements for the geologic evaluation of land based on proposed land uses, and ensuring ensure the County fulfills its duties under state law regarding geologic hazards, including the Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act (Ord. No. NS-1203.111, § 1, 3-19-02)				
Planning Documents				
General Plan	Yes	No	Yes	Yes
Is the plan compliant with Assembly Bill 2140? No.				
Comment: The Santa Clara County General Plan, 1995-2010 , was adopted December 20, 1994. Recent revisions include the Housing Element Update, 2014, the Health Element Update, 2015, and Local Serving Areas, 2015. The 2000 Stanford University Community Plan, adopted December 2000, is also a part of the General Plan and is published separately as a stand-alone document.				
Capital Improvement Plan	Yes	No	No	Yes
How often is the plan updated? 5 Year Intervals				
Comment: In May of 2016 the proposed Five-Year Capital Improvement Plan (CIP) for Fiscal Years FY 2017 – FY 2021 was presented to the Board of Supervisors for approval. The CIP covers Policy Manual: Policies 4.11 and 4.14, Facilities and Fleet Department Projects, Parks and Recreation Department Projects, Roads and Airports Department Projects, and Health and Hospital Projects.				
Floodplain or Watershed Plan	No	Yes	Yes	No
Comment: None Located; Santa Clara Valley Water District				
Stormwater Plan	Yes	No	Yes	Yes
Comment: The Santa Clara County Stormwater Management Program complies with the National Pollutant Discharge Elimination System (NPDES) to manage stormwater (rainwater) runoff to protect local waterways during construction and after construction. The County implements the NPDES requirements through its development review process to ensure local waterways meet pollution prevention and flow management requirements.				
Urban Water Management Plan	No	Yes	Yes	No
Comment: The Santa Clara Valley Water District 2015 Urban Water Management Plan provides information on water use and supply in Santa Clara County, including groundwater, local surface water, imported water, and water recycling, historical water use, water conservation programs, demand projections, water shortage contingency and supply interruption planning, reliability and threats to reliability.				
Habitat Conservation Plan	No	Yes	No	Yes

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
<i>Comment: The Santa Clara Valley Habitat Plan is a 50-year regional plan to protect endangered species and natural resources while allowing for future development in Santa Clara County, and is both a habitat conservation plan and natural community conservation plan, or HCP/NCCP. The final Habitat Plan was approved and adopted in 2013.</i>				
Economic Development Plan	No	No	No	No
<i>Comment: The 1995-2010 General Plan, Book A, Part Two, has a chapter on Economic Well Being that discusses economic development within the county. Strategy #5 is to increase economic development planning and promotion.</i>				
Shoreline Management Plan	No	No	No	No
<i>Comment: The Santa Clara Valley Water District and State Coastal Conservancy have worked in partnership with the Army Corps on the South San Francisco Bay Shoreline Study for over 10 years. This major flood risk management and ecosystem restoration project will protect Santa Clara County communities ringing the southern part of the San Francisco Bay from tidal flooding and rising sea levels.</i>				
Community Wildfire Protection Plan	Yes	No	Yes	Yes
<i>Comment: The Santa Clara County Fire Department has developed a Community Wildfire Protection Plan to reduce wildland fire risks to communities and the environment. The CWPP is currently in the public review process. The CWPP is a vital element in the H.R. 4233 (Healthy Forest Restoration Amendments Act of 2009), Public Law 108-148, 2003). The Act was revised in 2009 to address changes to funding and provide a renewed focus on wildfire mitigation.</i>				
Forest Management Plan	Yes	No	No	Yes
<i>Comment: The Santa Clara County Department of Parks and Recreation Tree Safety Program serves to protect natural forest and woodland communities, maintain the natural setting, manage problem trees in designated developed areas characterized by high public use, and protect park facilities and cultural and historical resources.</i>				
Climate Action Plan	Yes	No	Yes	Yes
<i>Comment: The Climate Action Plan for Operations and Facilities was developed and approved in 2009. SB 97 directs California Environmental Quality Act (CEQA) Guidelines to address greenhouse gas emissions. Other state policies include AB 32 and SB 375 and regulations of the Climate Action Plan.</i>				
Comprehensive Emergency Management Plan	Yes	No	Yes	Yes
<i>Comment: The Santa Clara County Operational Area Emergency Operations Plan was approved in 2008. In 2013 the Office of Emergency Services began the revision of the EOP consistent and compliant with applicable State and Federal planning guides and documents, applicable for all Operational Area emergency management functions.</i>				
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Yes	No	Yes
<i>Comment: The County of Santa Clara developed a standalone THIRA and participates in the Bay Area UASI THIRA, 2015. A THIRA evaluates the capability targets against scenarios across all hazards that stress stakeholder capabilities, and estimates the resources needed to achieve those capability targets.</i>				
Post-Disaster Recovery Plan	Yes	No	No	Yes
<i>Comment: Draft recovery framework was completed in Fall 2016. Final draft framework projected to be published within the next 12 months. Draft framework does currently address mitigation integration opportunities.</i>				
Continuity of Operations Plan	Yes	No	No	Yes
<i>Comment: There is a COOP planning initiative to be conducted throughout the calendar year of 2017. Planning process will include hazard identification and mitigation planning.</i>				
Public Health Plan	Yes	No	No	Yes
<i>Comment: The Santa Clara County Department of Public Health has the following public health plans: 2015-2020 Community Health Assessment and Health Improvement Plan; 2014 Emergency Medical Services Plan; 2013 EMS Strategic Plan; 2013 Santa Clara County EMS System Strategic Implementation Plan; Santa Clara County EMS Trauma System Plan; and Santa Clara County EMS Stroke Plan.</i>				
Other:	No	No	No	Yes

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
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Comment: None Located

Table 1-4. Fiscal Capability

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes; Recreational Services fees
Incur Debt through General Obligation Bonds	Yes – dependent on voter approval
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Other	Yes; Special District fees, Open Space Authority (Measure Q funds).

Table 1-5. Administrative and Technical Capability

Staff/Personnel Resources	Available?	Department/ Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Land Development Engineering Section of the Planning and Development Department
Engineers or professionals trained in building or infrastructure construction practices	Yes	Building Inspection, Planning and Development Department
Planners or engineers with an understanding of natural hazards	Yes	County Surveyor, Land Development Engineering Section
Staff with training in benefit/cost analysis	Yes	Controller-Treasurer Department
Surveyors	Yes	Office of County Surveyor
Personnel skilled or trained in GIS applications	Yes	Graphic Information Services
Scientist familiar with natural hazards in local area	Yes	Planning and Development Department, Contracted Services
Emergency manager	Yes	Office of Emergency Services
Grant writers	Yes/No	Planning and Development Department, Office of Emergency Services

Table 1-6. National Flood Insurance Program Compliance

Criteria	Response
What local department is responsible for floodplain management?	Department of Planning and Development
Who is your floodplain administrator? (department/position)	Planning and Development/Director
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date of adoption of your flood damage prevention ordinance?	April 21, 2009
Does your floodplain management program meet or exceed minimum requirements?	Meet
When was the most recent Community Assistance Visit or Community Assistance Contact?	November 2014
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <ul style="list-style-type: none"> If so, please state what they are. 	Yes Issues are currently being addressed
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If no, please state why. 	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? <ul style="list-style-type: none"> If so, what type of assistance/training is needed? 	No
Does your jurisdiction participate in the Community Rating System (CRS)? <ul style="list-style-type: none"> Is your jurisdiction interested in joining the CRS program? 	No No
How many flood insurance policies are in force in your jurisdiction? <ul style="list-style-type: none"> What is the insurance in force? What is the premium in force? 	670 ^a \$164,764,000 ^a \$889,748 ^a
How many total loss claims have been filed in your jurisdiction? <ul style="list-style-type: none"> How many claims were closed without payment/are still open? What were the total payments for losses? 	121 ^a 37 CWOP ^a \$1,506,976.57 ^a

a. According to FEMA statistics as of October 31, 2016.

Table 1-7. Education and Outreach

Criteria	Response
Do you have a Public Information Officer or Communications Office?	Yes; County Executive's Office of Public Affairs coordinates Public Information Officers, Media Contacts and Spokespersons from individual departments.
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website? <ul style="list-style-type: none"> If yes, please briefly describe. 	Yes Office of Emergency Services page provides hazard mitigation information.
Do you utilize social media for hazard mitigation education and outreach?	Yes

Criteria	Response
<ul style="list-style-type: none"> If yes, please briefly describe. 	The County, Sheriff's, OES, Public Health, and Fire Departments have Facebook, Twitter, or YouTube accounts or multiple sites.
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes; Animal Advisory Commission, Flood Protection and Watershed Advisory Committees, Los Altos Hills County Fire Protection District, Santa Clara County Health Authority, Santa Clara County Emergency Operational Area Council.
Do you have any other programs already in place that could be used to communicate hazard-related information? <ul style="list-style-type: none"> If yes, please briefly describe. 	Yes Community Emergency Response Team, Volunteer programs
Do you have any established warning systems for hazard events? <ul style="list-style-type: none"> If yes, please briefly describe. 	Yes Alert SCC, Santa Clara County Emergency Alert System,

Table 1-8. Community Classifications

	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	3	2013
Public Protection (Santa Clara County Fire Department)	Yes	2/2Y	12/2015
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A

Table 1-9. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? <ul style="list-style-type: none"> If no, who does? If yes, which department? 	Yes Planning and Development
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory?	Yes

Table 1-10. Adaptive Capacity for Climate Change

Adaptive Capacity Assessment Question	Jurisdiction Rating
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Medium
<i>Comment: None provided.</i>	
Jurisdiction-level monitoring of climate change impacts	Low
<i>Comment: None provided.</i>	
Technical resources to assess proposed strategies for feasibility and externalities	Low
<i>Comment: None provided.</i>	
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low

Adaptive Capacity Assessment Question	Jurisdiction Rating
<i>Comment: None provided.</i>	
Capital planning and land use decisions informed by potential climate impacts	Low
<i>Comment: None provided.</i>	
Participation in regional groups addressing climate risks	Medium
<i>Comment: None provided.</i>	
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Medium
<i>Comment: None provided.</i>	
Identified strategies for greenhouse gas mitigation efforts	Medium
<i>Comment: None provided.</i>	
Identified strategies for adaptation to impacts	Medium
<i>Comment: None provided.</i>	
Champions for climate action in local government departments	Low
<i>Comment: None provided.</i>	
Political support for implementing climate change adaptation strategies	Medium
<i>Comment: None provided.</i>	
Financial resources devoted to climate change adaptation	Low
<i>Comment: None provided.</i>	
Local authority over sectors likely to be negative impacted	Low
<i>Comment: None provided.</i>	
Public Capacity	
Local residents knowledge of and understanding of climate risk	Low
<i>Comment: None provided.</i>	
Local residents support of adaptation efforts	Low
<i>Comment: None provided.</i>	
Local residents’ capacity to adapt to climate impacts	Low
<i>Comment: None provided.</i>	
Local economy current capacity to adapt to climate impacts	Low
<i>Comment: None provided.</i>	
Local ecosystems capacity to adapt to climate impacts	Low
<i>Comment: None provided.</i>	

1.5 INTEGRATION WITH OTHER PLANNING INITIATIVES

The following describe the jurisdiction’s process for integrating the hazard mitigation plan into local planning mechanisms.

1.5.1 EXISTING INTEGRATION

The following plans and programs currently integrate the goals, risk assessment and/or recommendations of the hazard mitigation plan:

- **Emergency Management Performance Grant (EMPG)** – Annual Grant program that is meant to comprehensively reduce shared risk across the operational area. Any purchases take into account mitigation impact.
- **Recovery Framework** – As a component of the recovery framework potential mitigation actions are identified and recommended in order to build a community’s emergency management capacity and resiliency.
- **Silicon Valley Regional Interoperability Authority** – Meant to mitigate consequences of hazards due to interoperability and communication issues.
- **Emergency Operations Plan (EOP)** – Integrated mitigation actions by planning for organizational short-falls and unforeseen circumstances.

1.5.2 OPPORTUNITIES FOR FUTURE INTEGRATION

The following plans and programs do not currently integrate the goals, risk assessment and/or recommendations of the hazard mitigation plan, but provide an opportunity for future integration:

- **California Building Code** – Maintain triennial adoption of updated California Building Code to maintain regulatory standards that will subsequently minimize future hazard impacts.
- **Habitat Conservation Plan** – There is integration potential for our Plan with the Hazard Mitigation Plan due to the fact that we will be managing 47,000 acres of rangeland and open space that has the potential to be impacted by fire, flooding and theologically earthquakes.
- **Environmental Protection** – Riparian Setback Ordinance for San Martin Area (see same section above)
- **Site Plan Review** – The site plan review process provides an opportunity for mitigation to be incorporated into development practices. Several current projects were identified and were included in the action plan (see Table 1-13).

1.6 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 1-11 lists all past occurrences of natural hazards within the jurisdiction.

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment ^d
Earthquake	–	4/18/1906	\$524,000,000
Flooding	15	2/5/1954	Unknown
Flooding	47	12/23/1955	Unknown
Fire	65	12/29/1956	Unknown
Flooding	82	4/4/1958	Unknown
Severe Weather - High Winds	–	1960	\$95,185
Severe Weather - High Winds	–	1961	\$73.36
Flooding	138	10/24/1962	Unknown
Flooding	122	3/6/1962	Unknown
Severe Weather - Winter Weather/High Winds	–	1962	\$67,657
Severe Weather - Thunderstorm	–	1962	\$845
Flooding	145	2/25/1963	Unknown

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment ^a
Dam/Levee Break	161	12/21/1963	Unknown
Severe Weather - Lightning	–	1965	\$7,837
Severe Weather - Thunderstorm	–	1965	\$648.67
Severe Weather - Thunderstorm	–	1965	\$7,135.19
Severe Weather - High Winds	–	1965	\$110,652.18
Severe Weather - Thunderstorm	–	1965	\$74,765.54
Severe Weather - Thunderstorm	–	1965	\$6,486.52
Severe Weather - High Winds	–	1966	\$83,128.89
Severe Weather - Thunderstorm	–	1967	\$61,117
Severe Weather - High Winds	–	1967	\$81,566.86
Severe Weather - Thunderstorm	–	1968	\$10,015.94
Landslide	–	1968	\$16,283,858.04
Severe Storm/Thunder Storm	–	1969	\$5,567,438.75
Severe Weather - Thunderstorms/High Winds	–	1969	\$10,763,714.88
Severe Weather - Thunderstorms/High Winds	–	1970	\$63,632.35
Severe Weather - Winter Weather	–	1970	\$71,031.25
Severe Weather - High Winds	–	1972	\$2,835.13
Flooding	–	1973	\$86,206.90
Drought	3023	1/20/1977	Unknown
Severe Weather - Thunderstorms/High Winds	–	1980	\$2,996.28
Winter Weather	–	1981	\$2,716.10
Flooding	651	12/19/1981	\$17,543,819.07
Flooding	–	1982	\$409,356.61
Severe Weather - Thunderstorms/High Winds	–	1982	\$12,280.67
Flooding	–	1982	\$1,228,067.36
Severe Weather - High Winds	–	1982	\$25,584.73
Flooding	–	1983	\$20,746,004.58
Severe Weather - Thunderstorms/High Winds	–	1983	\$915,264.90
Severe Storm/Thunder Storm/Wind	–	1983	\$24,788.43
Flooding - Coastal Storm	677	1/21/1983	\$1,189,844.38
Earthquake	–	1984	\$9,124,812.35
Fire	739	6/26/1985	Unknown
Flooding	758	2/12/1986	\$10,812,819.38
Severe Weather - High Winds	–	1987	\$7,865.46
Severe Weather - High Winds	–	1988	\$5,008.81
Severe Weather - High Winds	–	1988	\$17,271.77
Flooding	–	1988	\$100,176.25
Severe Weather - Winter Weather	–	1989	\$238,928.43
Earthquake	845	10/17/1989	\$1,409,677,726
Severe Weather - Freeze	894	12/19/1990	Unknown

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment ^d
Severe Weather - High Winds	—	1991	\$669.32
Severe Weather - Winter Weather	—	1992	\$175.98
Flooding	—	1992	\$3,586,367.38
Flooding/Wind	—	1992	\$1,797.17
Severe Weather - Winter Weather	—	1992	\$3,808.34
Flooding	—	1993	\$91,125.34
Severe Weather - Winter Weather/High Winds	—	1993	\$230,691.85
Severe Weather - Winter Weather/High Winds	—	1993	\$108,172.06
Severe Weather - Winter Weather	—	1994	\$2,498.91
Severe Weather - Winter Weather	—	1994	\$2,050.39
Severe Weather - Storm	1044	1/3/1995	\$1,010,899.28
Severe Weather - Storm	1046	2/13/1995	\$17,482,926.56
Severe Weather - Landslide	1155	12/28/1996	\$21,792,068.12
Severe Weather - Tornado	—	1997	\$29,534.83
Severe Weather - landslide	1203	2/2/1998	\$25,537,087.33
Severe Weather - High Winds	—	2001	\$936,826.09
Fire - Croy	2465	9/23/2002	\$6,559,446.93
Hurricane - Katrina (Evacuation)	3248	8/29/2005	\$1,870,933.90
Landslide	—	2006	\$5,094,611.45
Severe Weather - High Winds	—	2006	\$199,865.53
Severe Weather - Winter Weather	—	2007	\$5,578,430.62
Severe Weather - Tornado	—	2007	\$1,143.12
Fire - California Wildfires	3287	6/20/2008	\$491,525,986
Fire - Summit	2766	5/22/2008	\$10,722,593.80
Severe Weather - High Winds	—	2008	\$55,042.66
Severe Weather - High Winds	—	2008	\$18,164.08
Severe Weather - Winter Weather	—	2008	\$8,806.82
Severe Weather - High Winds	—	2009	\$23,016.33
Severe Weather - High Winds	—	2009	\$48,294.84
Severe Weather - High Winds	—	2009	\$20,235.96
Severe Weather - Fog	—	2009	\$9,206.53
Severe Weather - Heat	—	2009	\$3,682.61
Severe Weather - High Winds	—	2009	\$5,523.92
Flooding/Wind/Landslide	—	2009	\$1,852,906.55
Severe Weather - High Winds	—	2009	\$18,413.07
Severe Weather - Winter Weather	—	2009	\$46,953.32
Flooding/Landslide	—	2010	\$5,434.77
Severe Weather - High Winds	—	2010	\$313,858.17
Severe Weather - High Winds	—	2010	\$9,057.95
Severe Weather - High Winds	—	2010	\$10,869.54

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment ^a
Severe Weather - High Winds	—	2010	\$181,159.13
Landslide	—	2010	\$1,449.27
Severe Weather - High Winds	—	2010	\$21,286.19
Severe Weather - High Winds	—	2011	\$2,634.24
Flooding/Wind/Landslide	—	2011	\$66,294.96
Landslide	—	2012	\$19,356.21
Severe Weather - High Winds	—	2012	\$4,129.32
Landslide	—	2012	\$10,323.31
Severe Weather - High Winds	—	2012	\$4,430.42
Hail	—	2012	\$51.62
Severe Weather - High Winds	—	2012	\$731.23
Flooding	—	2012	\$2,787,293.67
Severe Weather - High Winds	—	2012	\$5,333.71
Severe Weather - High Winds	—	2013	\$2,882.72
Severe Weather - High Winds	—	2013	\$11,106.92
Severe Weather - High Winds	—	2013	\$18,313.74
Flooding	—	2014	\$500.59
Severe Weather - High Winds	—	2014	\$667.46
Severe Weather - High Winds	—	2015	\$7,608.33
Severe Weather - High Winds	—	2015	\$3,250
Fire - Loma	—	2016	Unknown
Flooding	—	2017	\$6,608,518 ^b

a. Unless otherwise indicated damage assessment values are in 2015 dollars

b. 2017 dollars

1.7 JURISDICTION-SPECIFIC VULNERABILITIES

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 0
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 1
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 0

Other noted vulnerabilities include:

- Localized street flooding throughout County.

1.8 HAZARD RISK RANKING

Table 1-12 presents the ranking of the hazards of concern.

1.9 STATUS OF PREVIOUS PLAN ACTIONS

The status of previous actions from the 2011 ABAG LHMP for Santa Clara County can be found in Appendix D of this volume.

Table 1-12. Hazard Risk Ranking

Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
1	Earthquake	54	High
1	Wildfire	54	High
2	Severe Weather	33	Medium
3	Flood	18	Medium
3	Landslide	18	Medium
4	Dam and Levee Failure	13	Low
5	Drought	9	Low

1.10 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED ACTIONS

Table 1-13 lists the actions that make up the County of Santa Clara hazard mitigation action plan. Table 1-14 identifies the priority for each action. Table 1-15 summarizes the mitigation actions by hazard of concern and the six mitigation types.

1.11 ADDITIONAL RESOURCES

The hazard mitigation plan annex development tool-kit was used in the development of this annex to the Santa Clara Operational Area Hazard Mitigation Plan.

Table 1-13. Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
SCC-1 – County-Wide CWPP - Maintain and update as appropriate, the County unincorporated CWPP, while expanding the planning scope to integrate the all of the Operational Area's jurisdictions.						
<ul style="list-style-type: none"> Create defensible space programs on a county-wide basis. 						
Existing	Wildfire	1, 2, 5, 6	Santa Clara County Fire Department -or- FireSafe Council	Medium	SCCFD General Budget; County OES General Budget; HMGP; PDM; EMPG	Ongoing
SCC-2 – CalFire, South County Fire, and the Santa Clara County Fire Department should prepare for coordinated wildfire response operations through the development of a Wildfire Annex to the County's Emergency Operations Plan						
Existing	Wildfire	1, 3, 5, 6	County OES	Low	SCCFD General Budget; County OES General Budget; HMGP; EMPG	Short-term

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
SCC-3 – Cal Fire, South County Fire, and the Santa Clara County Fire should continue working together to study the latest research on best practices (i.e. Be Ember Aware) via conferences, seminars and invitations to attend other area FireSafe Council meetings.						
New and Existing	Wildfire	1, 2, 5	Santa Clara County Fire Department	Low	SCCFD General Budget, FireSafe Council General Budget, and South County Fire General Budget; EMPG	Ongoing
SCC-4 – Continue to promote programs that mitigate vegetation fire, such as disease tree removal, defensible space, and FireWise community programs.						
New and Existing	Wildfire	2, 4, 6, 8	Santa Clara County Fire Department	Low	SCCFD General Budget; County OES General Budget; South County Fire General Budget; HMGP; and PDM; EMPG	Ongoing
SCC-5 – Create Santa Clara County Information Sharing Council (or equivalent) as an institutional receptacle for matters pertaining to infrastructure data-sharing efforts.						
<ul style="list-style-type: none"> • Invite all departments/agencies owning EM related data (including private utilities) • Consider hosting private sector • Host quarterly council meetings 						
New and Existing	All hazards	1, 2, 5	ISD (GIS)	\$150,000 (for all #19 Actions collectively) Medium	SCCFD General Budget, County OES Budget, ISD/GIS Budget, HMGP; EMPG	Short-Term
SCC-6 – Maintain and update a GIS layer of localized flooding “hot spots” throughout the County.						
New and Existing	Flood, Severe Weather	1, 2	SCVWD	\$50,000 Medium	SCVWD General Budget; County ISD/GIS Budget, HMGP; PDM; FMA; EMPG	Short-Term
SCC-7 – Maintain and update GIS to evaluate catastrophic dam failure scenarios.						
New and Existing	Dam and Levee Failure	1, 2	SCVWD	\$100,000 Low	SCVWD General Budget; County ISD/GIS Budget, HMGP; PDM; FMA; EMPG	Short-Term
SCC-8 – Develop, update, and maintain GIS inventories of essential facilities, at-risk buildings and infrastructure and prioritize mitigation projects. Ideas for Implementation:						
<ul style="list-style-type: none"> • Identify critical facilities at risk from natural hazards events. • Develop strategies to mitigate risk to these facilities, or to utilize alternative facilities should natural hazard events cause damage to the facilities in question. • Identify bridges at risk from flood or earthquake hazards. 						
Existing	All hazards	1, 2, 8	ISD (GIS)	\$50,000 Medium	County ISD Budget, County OES Budget, HMGP; PDM; FMA; EMPG	Long-term/Ongoing

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
SCC-9 – Maintain the WebEOC to up-to-date technology. For example, review the WebEOC vendor's Road Map; assess the vendor technology's fitness to the County's IT infrastructure; consider upgrading to a new system.						
Existing	All hazards	2, 9	ISD (GIS)	\$100,000 Low	County ISD Budget, County OES Budget, Emergency Management Performance Grant Program, HMGP; PDM; FMA; EMPG	Short- Term
SCC-10 – Participate in Statewide effort to collaborate on the spatial data standardization, data sharing platform, common operating procedures.						
Existing	All hazards	1, 5, 9	ISD (GIS)/OES	\$10,000 Low	County ISD Budget, County OES Budget, Emergency Management Performance Grant Program, HMGP; PDM; FMA; EMPG	Ongoing
SCC-11 – Develop and provide the Indoor Mapping, Evacuation Routing to Emergency Response Personnel						
New	Dam and Levee Failure, Earthquake, Flood, Severe Weather, Wildfire, Hazardous Materials	2, 9	ISD (GIS)	Medium	County ISD Budget, Emergency Management Performance Grant Program, HMGP; PDM; FMA; EMPG	Long- Term
SCC-12 – Develop a standard set of maps (digital and hard copy) that should be utilized during exercise and events.						
New and Existing	All hazards	2, 9	ISD (GIS)	\$50,000 Low	County ISD Budget, Emergency Management Performance Grant Program, HMGP; PDM; FMA; EMPG	Short- Term
SCC-13 – Identify county facilities vulnerable to earthquakes and develop appropriate actions. Identify the most seismically vulnerable bridges on county roads.						
Existing	Earthquake	2, 8	ISD (GIS)	\$100,000 Low	County ISD Budget, Fleet and Facilities Budget Emergency Management Performance Grant Program, HMGP; PDM; FMA; EMPG	Long- Term

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
SCC-14 – Identification and deployment of next generation reverse 911 system (i.e. AlertSCC replacements)						
New	All hazards	6, 9	County Communications	\$300,000 High	County ISD Budget, County OES Budget; County Communications Budget; the State Homeland Security Grant Program	Long-Term
SCC-15 – Deploy Plume Modeling software and enable OES staff to manage data input to assess hazardous materials atmospheric risk						
New and Existing	Hazardous materials, Earthquake	1, 2	ISD (GIS)	\$200,000 Medium	County ISD Budget, County OES Budget; County Public Health Budget; SCCFD; EMPG; the State Homeland Security Grant Program	Long-Term
SCC-16 – Bloomfield Road Settlement Repair (located in Gilroy between Sheldon & Davidson Aves): Project would realign current drainage ditch to dewater the subsurface/ ground water; inject materials to stabilize the subgrade; and, install new AC pavement.						
Existing	Earthquake, Landslide,	6, 8	Roads and Airports	\$3,000,000 High	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term
SCC-17 – Shannon Road Slide Repair (between Diduca Way & Santa Rose Dr. in Los Gatos): Soil nail project would cover approximately 1,000 LF.						
Existing	Landslide	6, 8	Roads and Airports	\$2,000,000 High	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term
SCC-18 – Miguelito Road Repairs for two road sections (located in east side of San José): Section 1, located near the intersection of Camino Vista Way and Miguelito Road, would replace the current soldier pile wall with a new retaining wall and repave the roadway. Section 2, located near the intersection of Rica Vista Way and Miguelito Road, would repair the slope failure.						
Existing	Landslide	6, 8	Roads and Airports	\$650,000 High	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term
SCC-19 – Clayton Road Slide Repair (located near 14194 Clayton Road, San José): Install retaining wall and repair roadway.						
Existing	Landslide	6, 8	Roads and Airports	\$500,000 High	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
SCC-20 – East Dunne Avenue Slide Repair & Road Reconstruction (located in Morgan Hill): Project site is about 0.3 mile from Woodchopper Picnic Area located in Anderson Lake County Park.						
Existing	Landslide	6, 8	Roads and Airports	\$3,500,000 High	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term
SCC-21 – Alma Bridge Road Slide Repair (located in Los Gatos): Project site is 0.75 mile south of the Los Gatos Rowing Club@ Lexington Reservoir.						
Existing	Landslide	6, 8	Roads and Airports	\$1,500,000 High	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term
SCC-22 – Arastradero Road Slide & Mitigation Project: Located 0.08 mile south of the intersection of Alpine & Arastradero Roads.						
Existing	Landslide	6, 8	Roads and Airports	\$1,000,000 High	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term
SCC-23 – Review and implement selected recommendations detailed in the Loma Fire Watershed Emergency Response Team Final Report, October 25, 2016 (CA-SCU-006912). Potential actions may include, but are not limited to: the deployment of an early warning system, infrastructure improvements, establishment of a FireWise community program, waterway clearance, general watershed restoration, etc.						
New and Existing	Wildfire, Flood, Landslide	3, 4, 6, 9	County OES	Medium	County Roads and Airports Budget; County OES Budget; HMGP; PDM; FMA	Long-Term
SCC-24 – Review critical facilities and capital projects for mitigation project potential - including, but not limited to: street flood water drainage, power production maintenance/upgrades, etc.						
Existing	All hazards	3, 6, 8	Fleet and Facilities	Medium	County Roads and Airports Budget; County OES Budget; County Fleet and Facilities Budget; County Roads and Airports Budget; County Planning & Development Budget; HMGP; PDM; FMA, EMPG; the State Homeland Security Grant Program	Short-Term
SCC-25 – Provide technical information and guidance to public on individual risk identification using information sharing/GIS platforms.						
New and Existing	All hazards	1, 4, 6	County ISD	Low	County ISD Budget, County OES Budget; SCCFD; EMPG; the State Homeland Security Grant Program	Short-Term

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
SCC-26 – Develop strategy to take advantage of post disaster opportunities - through the development of Disaster Recovery Planning, Disaster Cost Recovery Planning, etc.						
New and Existing	All hazards	1, 2, 3, 4, 5, 6, 7, 8	County OES	Medium	County OES Budget; SCCFD; County Finance Agency Budget; EMPG; the State Homeland Security Grant Program; HMGP	Long-Term
SCC-27 – Develop and adopt a COOP for County Departments, as appropriate						
Existing	All hazards	6, 9	County OES	Low	County OES Budget; SCCFD; County ISD; EMPG; the State Homeland Security Grant Program; HMGP	Short-Term
SCC-28 – Maintain existing data as well as gather new data needed to define risks and vulnerability. New data should be integrated into County policies relating to, but not limited to: stormwater management, post-disaster recovery, real estate disclosures, environmental protection, climate change, fire suppression, seismic activity.						
New and Existing	All hazards	1, 2, 3	County OES	Low	County OES Budget; SCCFD; County ISD; EMPG; the State Homeland Security Grant Program; HMGP	Ongoing
SCC-29 – Maintain existing data as well as gather new data needed to define risks and vulnerability. New data should be integrated into County plans relating to, but not limited to: the County's General Plan, Capital Improvement Plan, Stormwater Plan, Habitat Conservation Plan, Community Wildfire Protection Plan, Forest Management Plan, Climate Action Plan, Emergency Operations Plan, Threat & Hazard Identification & Risk Assessment, Post-Disaster Recovery Plan; Continuity of Operations Plan; Public Health Plan						
New and Existing	All hazards	1, 2, 3	County OES	Low	County OES Budget; SCCFD; County ISD; EMPG; the State Homeland Security Grant Program; HMGP	Ongoing
SCC-30 – Develop a Debris Collection and Management Plan						
Existing	Dam and Levee Failure, Earthquake, Flood, Landslide, Severe Storm, Wildfire	2, 6	County Roads and Airports	Medium	County OES Budget; SCCFD; County ISD; County Roads & Airports Budget; County Public Health Budget; EMPG; the State Homeland Security Grant Program; EMPG	Short-Term

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
SCC-31 – Continue to maintain good standing and compliance under the National Flood Insurance Program (NFIP). This will be accomplished through the implementation of floodplain management programs that will, at a minimum, meet the requirements of the NFIP:						
<ul style="list-style-type: none"> • Enforcement of the flood damage prevention ordinance • Participate in floodplain identification and mapping updates • Provide public assistance/information on floodplain requirements and impacts. 						
New and Existing	Flood	1, 3, 4, 7, 8	SCVWD	Low	SCVWD General Budget; HMGP; PDM; FMA	Ongoing
SCC-32 – Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions within the community.						
New	All hazards	2, 3	County OES	Medium	County OES Budget, SCCFD Budget, County Planning & Development Budget	Ongoing
SCC-33 – Develop and implement a program to capture perishable data after significant events (e.g. high water marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan.						
New and Existing	All hazards	1, 2, 7	County OES	Medium	County OES Budget, SCCFD Budget, County ISD/GIS Budget, County Finance Agency Budget	Long-Term
SCC-34 – Actively participate in the plan maintenance protocols outlined in Volume I of the hazard mitigation plan.						
New and Existing	All hazards	1, 5	County OES	Low	County OES Budget, SCCFD Budget, HMGP; PDM; EMPG	Ongoing
SCC-35 – Coordinate with the private sector on prioritization of critical facilities before and during restoration of utility services.						
Existing	All hazards	5, 6	County OES	Low	County OES Budget	Ongoing

Acronyms used in Sources of Funding: EMPG = the Federal Emergency Management Performance Grant; FMA = the Federal Flood Mitigation Assistance Grant Program; HMGP = The Federal Hazard Mitigation Grant Program; PDM = Federal Pre-Disaster Mitigation Grant Program; SCCFD General Budget = Santa Clara County Fire Department General Budget

Table 1-14. Mitigation Strategy Priority Schedule

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Implementation Priority ^a	Grant Pursuit Priority ^a
SCC-1	4	Medium	Medium	Yes	Yes	Yes	High	Medium
SCC-2	4	Medium	Low	Yes	Yes	Yes	High	Medium
SCC-3	3	Low	Low	Yes	Yes	Yes	High	Medium
SCC-4	4	Medium	Low	Yes	Yes	Yes	High	Medium
SCC-5	3	Medium	Medium	Yes	Yes	Yes	High	Medium
SCC-6	2	Medium	Medium	Yes	Yes	Yes	High	Medium
SCC-7	2	Medium	Low	Yes	Yes	Yes	High	Medium
SCC-8	3	Medium	Medium	Yes	Yes	Yes	Low	Medium
SCC-9	2	Medium	Low	Yes	Yes	Yes	High	Medium
SCC-10	3	Low	Low	Yes	Yes	Yes	Medium	Medium
SCC-11	2	High	Medium	Yes	Yes	Yes	Medium	Medium
SCC-12	2	Low	Low	Yes	Yes	Yes	Medium	Medium
SCC-13	2	Medium	Low	Yes	Yes	Yes	Low	Medium
SCC-14	2	High	High	Yes	Yes	No	Medium	High
SCC-15	2	Medium	Medium	Yes	Yes	Yes	Low	Medium
SCC-16	2	High	High	Yes	Yes	No	Medium	High
SCC-17	2	High	High	Yes	Yes	No	Medium	High
SCC-18	2	High	High	Yes	Yes	No	Medium	High
SCC-19	2	High	High	Yes	Yes	No	Medium	High
SCC-20	2	High	High	Yes	Yes	No	Medium	High
SCC-21	2	High	High	Yes	Yes	No	Medium	High
SCC-22	2	High	High	Yes	Yes	No	Medium	High
SCC-23	4	Medium	Medium	Yes	Yes	Yes	Low	Medium
SCC-24	3	Medium	Medium	Yes	Yes	Yes	High	Medium
SCC-25	3	Low	Low	Yes	Yes	Yes	Medium	Low

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Implementation Priority ^a	Grant Pursuit Priority ^a
SCC-26	8	Medium	Medium	Yes	Yes	Yes	Low	Medium
SCC-27	2	Medium	Low	Yes	Yes	Yes	High	Medium
SCC-28	3	Low	Low	Yes	Yes	Yes	Medium	Medium
SCC-29	3	Low	Low	Yes	Yes	Yes	Medium	Medium
SCC-30	2	Medium	Medium	Yes	Yes	Yes	High	Medium
SCC-31	5	Medium	Low	Yes	Yes	Yes	High	Medium
SCC-32	2	Medium	Medium	Yes	No	Yes	High	Low
SCC-33	3	Medium	Medium	Yes	No	Yes	Low	Low
SCC-34	2	Low	Low	Yes	Yes	Yes	Medium	Low
SCC-35	2	High	Low	No	No	Yes	High	Low

a. See the introduction to this volume for explanation of priorities.

Table 1-15. Analysis of Mitigation Actions

Hazard Type	Action Addressing Hazard, by Mitigation Type ^a						
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects	7. Climate Resilient
Earthquake	SCC-5, SCC-8, SCC-10, SCC-26, SCC-28, SCC-29, SCC-30, SCC-32, SCC-33, SCC-34	SCC-8, SCC-13, SCC-16, SCC-24	SCC-25		SCC-9, SCC-11, SCC-12, SCC-14, SCC-15, SCC-27, SCC-30, SCC-35		
Wildfire	SCC-1, SCC-3, SCC-5, SCC-8, SCC-10, SCC-23, SCC-26, SCC-28, SCC-29, SCC-30, SCC-32, SCC-33, SCC-34	SCC-1, SCC-4, SCC-8, SCC-24	SCC-1, SCC-4, SCC-25	SCC-4	SCC-2, SCC-9, SCC-11, SCC-12, SCC-14, SCC-27, SCC-30, SCC-35		

Hazard Type	Action Addressing Hazard, by Mitigation Type ^a						
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects	7. Climate Resilient
Severe Weather	SCC-5, SCC-6, SCC-8, SCC-10, SCC-26, SCC-28, SCC-29, SCC-30, SCC-32, SCC-33, SCC-34	SCC-8, SCC-24	SCC-25		SCC-9, SCC-11, SCC-12, SCC-14, SCC-27, SCC-30, SCC-35		
Flood	SCC-5, SCC-6, SCC-8, SCC-10, SCC-23, SCC-26, SCC-28, SCC-29, SCC-30, SCC-31, SCC-32, SCC-33, SCC-34	SCC-10, SCC-8, SCC-24, SCC-31	SCC-25, SCC-31		SCC-9, SCC-11, SCC-12, SCC-14, SCC-27, SCC-30, SCC-35		
Landslide	SCC-5, SCC-8, SCC-10, SCC-23, SCC-26, SCC-28, SCC-29, SCC-30, SCC-32, SCC-33, SCC-34	SCC-8, SCC-16, SCC-18, SCC-19, SCC-20, SCC-21, SCC-22, SCC-24	SCC-25		SCC-9, SCC-12, SCC-14, SCC-27, SCC-30, SCC-35	SCC-18, SCC-19,	
Dam and Levee Failure	SCC-5, SCC-7, SCC-8, SCC-10, SCC-26, SCC-28, SCC-29, SCC-30, SCC-32, SCC-33, SCC-34	SCC-8, SCC-24	SCC-25		SCC-9, SCC-11, SCC-12, SCC-14, SCC-27, SCC-30, SCC-35		
Drought	SCC-5, SCC-8, SCC-10, SCC-26, SCC-28, SCC-29, SCC-32, SCC-33, SCC-34	SCC-8, SCC-24	SCC-25		SCC-9, SCC-12, SCC-14, SCC-27, SCC-35		

a. See the introduction to this volume for explanation of mitigation types.

SANTA CLARA OPERATIONAL AREA HAZARD MITIGATION PLAN

Appendix A. PLANNING PARTNER EXPECTATIONS

ACHIEVING DMA COMPLIANCE FOR ALL PLANNING PARTNERS

One of the goals of the multi-jurisdictional approach to hazard mitigation planning is to achieve compliance with the Disaster Mitigation Act (DMA) for all participating members in the planning effort. DMA compliance must be certified for each member in order to maintain eligibility for the benefits under the DMA. Whether our planning process generates ten individual plans or one large plan that has a chapter for each partner jurisdiction, the following items must be addressed by each planning partner to achieve DMA compliance:

- **The Estimated level of effort.** It is estimated that the total time commitment to meet these “participation” requirements for a planning partner not participating on the Steering Committee would be approximately 40 hours over the 6 to 8 month period. Approximately sixty percent of this time would be allocated to meeting items F through L described below. This time is reduced somewhat for special purpose districts.
- **Participate in the process.** It must be documented in the plan that each planning partner “participated” in the process that generated the plan. There is flexibility in defining “participation”. Participation can vary based on the type of planning partner (i.e.: City or County, vs. a Special Purpose District). However, the level of participation must be defined and the extent for which this level of participation has been met for each partner must be contained in the plan context.
- **Consistency Review.** Review of existing documents pertinent to each jurisdiction to identify policies or recommendations that are not consistent with those documents reviewed in producing the “parent” plan or have policies and recommendations that complement the hazard mitigation actions selected (i.e.: comp plans, basin plans or hazard specific plans).
- **Action Review.** For Plan updates, a review of the strategies from your prior action plan to determine those that have been accomplished and how they were accomplished; and why those that have not been accomplished were not completed.
- **Update Localized Risk Assessment.** Personalize the Risk Assessment for each jurisdiction by removing hazards not associated with the defined jurisdictional area or redefining vulnerability based on a hazard’s impact to a jurisdiction. This phase will include:
 - A ranking of the risk
 - A description of the number and type of structures at risk
 - An estimate of the potential dollar losses to vulnerable structures
 - A general description of land uses and development trends within the community, so that mitigation options can be considered in future land use decisions.
- **Capability assessment.** Each planning partner must identify and review their individual regulatory, technical and financial capabilities with regards to the implementation of hazard mitigation actions.
- **Personalize mitigation recommendations.** Identify and prioritize mitigation recommendations specific to the each jurisdiction’s defined area.
- **Create an Action Plan.**
- **Incorporate Public Participation.** Each jurisdiction must present the Plan to the public for comment at least once, within two weeks prior to adoption.
- **Plan must be adopted by each jurisdiction.**

One of the benefits to multi-jurisdictional planning is the ability to pool resources. This means more than monetary resources. Resources such as staff time, meeting locations, media resources, technical expertise will all need to be utilized to generate a successful plan. In addition, these resources can be pooled such that decisions can be made by a peer group applying to the whole and thus reducing the individual level of effort of each planning partner. This will be accomplished by the formation of a steering committee made up of planning partners and other “stakeholders” within the planning area. The size and makeup of this steering committee will be determined by the planning partnership. This body will assume the decision making responsibilities on behalf of the entire partnership. This will streamline the planning process by reducing the number of meetings that will need to be attended by each planning partner. The assembled Steering Committee for this effort will meet monthly on an as needed basis as determined by the planning team, and will provide guidance and decision making during all phases of the plan’s development.

With the above participation requirements in mind, each partner is expected to aid this process by being prepared to develop its section of the plan. To be an eligible planning partner in this effort, each Planning Partner shall provide the following:

14. A “Letter of Intent to participate” or Resolution to participate to the Planning Team (see exhibit A). **Already completed**
15. Designate a lead point of contact for this effort. This designee will be listed as the hazard mitigation point of contact for your jurisdiction in the plan. **Already Completed**
16. Support and participate in the selection and function of the Steering Committee selected to oversee the development of this plan.
17. Provide support in the form of mailing list, possible meeting space, and public information materials, such as newsletters, newspapers or direct mailed brochures, required to implement the public involvement strategy developed by the Steering Committee.
18. Participate in the process. There will be many opportunities as this plan evolves to participate. Opportunities such as:
 - a. Steering Committee meetings
 - b. Public meetings or open houses
 - c. Workshops/ Planning Partner specific training sessions
 - d. Public review and comment periods prior to adoption
19. At each and every one of these opportunities, attendance will be recorded. Attendance records will be used to document participation for each planning partner. No thresholds will be established as minimum levels of participation. However, each planning partner should attempt to attend all possible meetings and events.
20. There will be one *mandatory* workshop that all planning partners will be required to attend. This workshop will cover the proper completion of the jurisdictional annex template which is the basis for each partner’s jurisdictional chapter in the plan. Failure to have a representative at this workshop will disqualify the planning partner from participation in this effort. The schedule for this workshop will be such that all committed planning partners will be able to attend.
21. After participation in the mandatory template workshop, each partner will be required to complete their template and provide it to the planning team in the time frame established by the Steering Committee. Failure to complete your template in the required time frame may lead to disqualification from the partnership.

22. Each partner will be expected to perform a “consistency review” of all technical studies, plans, ordinances specific to hazards to determine the existence of any not consistent with the same such documents reviewed in the preparation of the County (parent) Plan. For example, if your community has a floodplain management plan that makes recommendations that are not consistent with any of the County’s Basin Plans, that plan will need to be reviewed for probable incorporation into the plan for your area.
23. Each partner will be expected to review the Risk Assessment and identify hazards and vulnerabilities specific to its jurisdiction. Contract resources will provide the jurisdiction specific mapping and technical consultation to aid in this task, but the determination of risk and vulnerability will be up to each partner.
24. Each partner will be expected to review and determine if the mitigation recommendations chosen in the parent plan will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the parent plan recommendations will need to be identified and prioritized, and reviewed to determine their benefits vs. costs.
25. Each partner will be required to create its own action plan that identifies each project, who will oversee the task, how it will be financed and when it is estimated to occur.
26. Each partner will be required to sponsor at least one public meeting to present the draft plan to its constituents at least 2 weeks prior to adoption.
27. Each partner will be required to formally adopt the plan.

Templates and instructions to aid in the compilation of this information will be provided to all committed planning partners. Each partner will be expected to complete their templates in a timely manner and according to the timeline specified by the Steering Committee.

**** Note**:** Once this plan is completed, and DMA compliance has been determined for each partner, maintaining that eligibility will be dependent upon each partner implementing the plan implementation-maintenance protocol identified in the plan. At a minimum, this means completing the on-going plan maintenance protocol identified in the plan. Partners that do not participate in this plan maintenance strategy may be deemed ineligible by the partnership, and thus lose their DMA eligibility.

Exhibit A

Example Letter of Intent to Participate

Santa Clara County Hazard Mitigation Planning Partnership
C/O Jessica Cerutti, Tetra Tech, Inc.
1999 Harrison, Suite 500
Oakland, CA 94612

Dear Santa Clara County Planning Partnership,

Please be advised that the _____ (*insert City or district name*) is committed to participating in the update to the Santa Clara County Regional Hazard Mitigation Plan. As the jurisdictional representative tasked with this planning effort, I certify that we will commit all necessary resources in order to meet Partnership expectations as outlined in the “Planning Partners expectations” document provided by the planning team, in order to obtain Disaster Mitigation Act (DMA) compliance for our jurisdiction.

Mr./Ms. _____ will be our jurisdiction’s point of contact for this process and they can be reached at (*insert: address, phone number and e-mail address*).

Sincerely,

Name _____

Title _____

Exhibit B**Planning Team Contact information**

Name	Representing	Address	Phone	e-mail
Darrell Ray	SCC OES	55 W. Younger Ave. Suite 450 San José, California 95110-1721	(208) 577-4750	Darrell.Ray@oes.sccgov.org
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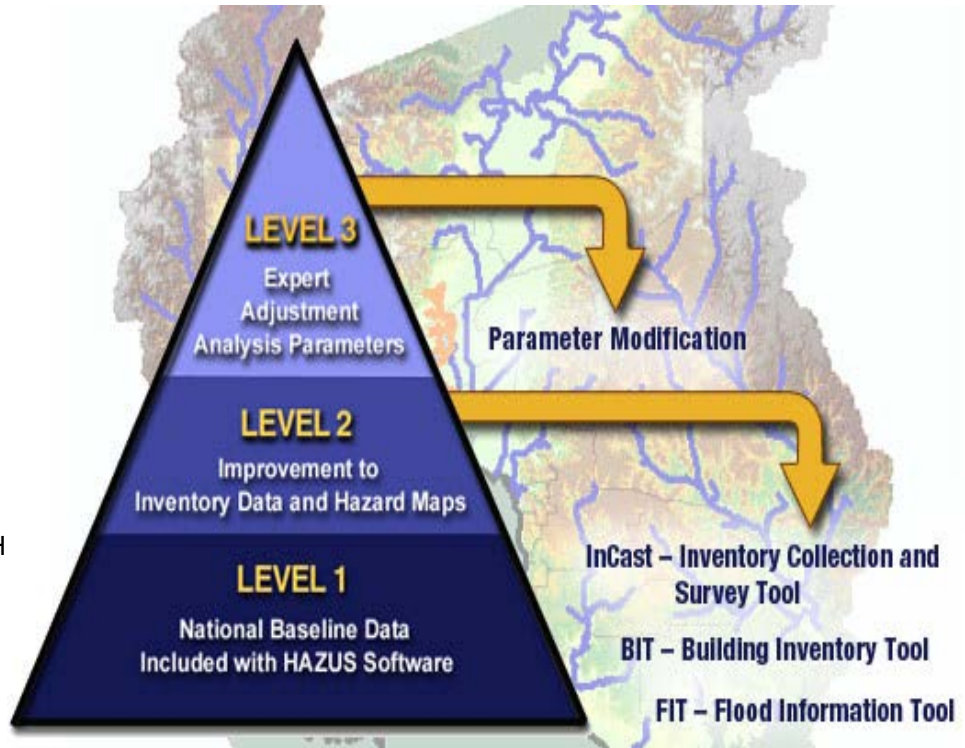
Exhibit C

Overview of HAZUS

Overview of HAZUS-MH (Multi-Hazard)

http://www.fema.gov/hazus/dl_mhpres.shtm HAZUS-MH, is a nationally applicable standardized

methodology and software program that contains models for estimating potential losses from earthquakes, floods, and hurricane winds. HAZUS-MH was developed by the Federal Emergency Management Agency (FEMA) under contract with the National Institute of Building Sciences (NIBS). NIBS maintains committees of wind, flood, earthquake and software experts to provide technical oversight and guidance to HAZUS-MH development. Loss estimates produced by HAZUS-MH are based on current scientific and engineering knowledge of the effects of hurricane winds, floods, and earthquakes. Estimating losses is essential to decision-making at all levels of government, providing a basis for developing mitigation plans and policies, emergency preparedness, and response and recovery planning.



HAZUS-MH uses state-of-the-art geographic information system (GIS) software to map and display hazard data and the results of damage and economic loss estimates for buildings and infrastructure. It also allows users to estimate the impacts of hurricane winds, floods, and earthquakes on populations. The latest release, HAZUS-MH

MR1, is an updated version of HAZUS-MH that incorporates many new features which improve both the speed and functionality of the models. For information on software and hardware requirements to run HAZUS-MH MR1, see HAZUS-MH [Hardware and Software Requirements](#).

HAZUS-MH Analysis Levels

HAZUS-MH provides for three levels of analysis:

- A **Level 1** analysis yields a rough estimate based on the nationwide database and is a great way to begin the risk assessment process and prioritize high-risk communities.
- A **Level 2** analysis requires the input of additional or refined data and hazard maps that will produce more accurate risk and loss estimates. Assistance from local emergency management personnel, city planners, GIS professionals, and others may be necessary for this level of analysis.
- A **Level 3** analysis yields the most accurate estimate of loss and typically requires the involvement of technical experts such as structural and geotechnical engineers who can modify loss parameters based on to the specific conditions of a community. This level analysis will allow users to supply their own techniques to study special conditions such as dam breaks and tsunamis. Engineering and other expertise is needed at this level.



Three data input tools have been developed to support data collection. The [Inventory Collection Tool \(InCAST\)](#) helps users collect and manage local building data for more refined analyses than are possible with the national level data sets that come with HAZUS. InCAST has expanded capabilities for multi-hazard data collection. HAZUS-MH includes an enhanced Building Inventory Tool (BIT) allows users to import building data and is most useful when handling large datasets, such as tax assessor records. The [Flood Information Tool \(FIT\)](#) helps users manipulate flood data into the format required by the HAZUS flood model. All Three tools are included in the HAZUS-MH MR1 Application DVD.

HAZUS-MH Models

The **HAZUS-MH Hurricane Wind Model** gives users in the Atlantic and Gulf Coast regions and Hawaii the ability to estimate potential damage and loss to residential, commercial, and industrial buildings. It also allows users to estimate direct economic loss, post-storm shelter needs and building debris. In the future, the model will include the capability to estimate wind effects in island territories, storm surge, indirect economic losses, casualties, and impacts to utility and transportation lifelines and agriculture. Loss models for other severe wind hazards will be included in the future. [Details about the Hurricane Wind Model](#).

The **HAZUS-MH Flood Model** is capable of assessing riverine and coastal flooding. It estimates potential damage to all classes of buildings, essential facilities, transportation and utility lifelines, vehicles, and agricultural crops. The model addresses building debris generation



and shelter requirements. Direct losses are estimated based on physical damage to structures, contents, and building interiors. The effects of flood warning are taken into account, as are flow velocity effects. [Details about the Flood Model.](#)

The **HAZUS-MH Earthquake Model**, The HAZUS earthquake model provides loss estimates of damage and loss to buildings, essential facilities, transportation and utility lifelines, and population based on scenario or probabilistic earthquakes. The model addresses debris generation, fire-following, casualties, and shelter requirements. Direct losses are estimated based on physical damage to structures, contents, inventory, and building interiors. The earthquake model also includes the Advanced Engineering Building Module for single- and group-building mitigation analysis. [Details about the Earthquake Model.](#)

The updated earthquake model released with HAZUS-MH includes:

- The (September 2002) National Hazard Maps
- Project '02 attenuation functions
- Updated historical earthquake catalog (magnitude 5 or greater)
- Advanced Engineering Building Module for single and group building mitigation analysis

Additionally, HAZUS-MH can perform multi-hazard analysis by providing access to the average annualized loss and probabilistic results from the hurricane wind, flood, and earthquake models and combining them to provide integrated multi-hazard reports and graphs. HAZUS-MH also contains a third-party model integration capability that provides access and operational capability to a wide range of natural, man-made, and technological hazard models (nuclear and conventional blast, radiological, chemical, and biological) that will supplement the natural hazard loss estimation capability (hurricane wind, flood, and earthquake) in HAZUS-MH.

SANTA CLARA OPERATIONAL AREA HAZARD MITIGATION PLAN

Appendix B. PROCEDURES FOR LINKING TO HAZARD MITIGATION PLAN

Not all eligible local governments are included in the Santa Clara Operational Area Hazard Mitigation Plan. Some or all of these non-participating local governments may choose to “link” to the Plan at some point to gain eligibility for programs under the federal Disaster Mitigation Act (DMA). The following “linkage” procedures define the requirements established by the planning team for dealing with an increase in the number of planning partners linked to this plan. No currently non-participating jurisdiction within the defined planning area is obligated to link to this plan. These jurisdictions can choose to do their own “complete” plan that addresses all required elements of Section 201.6 of Chapter 44 of the Code of Federal Regulations (44 CFR).

INCREASING THE PARTNERSHIP THROUGH LINKAGE

ELIGIBILITY

Eligible jurisdictions located in the planning area may link to this plan at any point during the plan’s performance period. Eligible jurisdictions located in the planning area may link to this plan at any point during the plan’s performance period (5 years after final approval). Eligibility will be determined by the following factors:

- The linking jurisdiction is a local government as defined by the Disaster Mitigation Act.
- The boundaries or service area of the linking jurisdiction is completely contained within the boundaries of the planning area established during the 2016 hazard mitigation plan development process.
- The linking jurisdiction’s critical facilities were included in the critical facility and infrastructure risk assessment completed during the 2016 plan development process.

REQUIREMENTS

It is expected that linking jurisdictions will complete the requirements outlined below and submit their completed template to the lead agency Santa Clara County Office of Emergency Services for review within six months of beginning the linkage process:

- The eligible jurisdiction requests a “Linkage Package” by contacting the Point of Contact (POC) for the plan:

Darrell G. Ray Jr., CEM
Emergency Management Specialist
Santa Clara County Fire Department
Santa Clara County Office of Emergency Services
55 W. Younger Ave. Suite 450
San José, California 95110-1721
Office: 408.808.7800
Cell: 408.963.3168

- The POC will provide a linkage procedure package that includes linkage information and a linkage tool-kit:
 - Linkage Information
 - Procedures for linking to the multi-jurisdictional hazard mitigation plan

- Planning partner's expectations for linking jurisdictions
 - A sample "letter of intent" to link to the multi-jurisdictional hazard mitigation plan
 - A copy of Section 201.6 of 44 CFR, which defines the federal requirements for a local hazard mitigation plan.
- Linkage Tool-Kit
- Copy of Volume 1 and 2 of the plan
 - A special purpose district or municipality template and instructions
 - A catalog of hazard mitigation alternatives
 - A sample resolution for plan adoption
- The new jurisdiction will be required to review both volumes of the Santa Clara Operational Area Hazard Mitigation Plan, which include the following key components for the planning area:
 - Goals and objectives
 - The planning area risk assessment
 - Comprehensive review of alternatives
 - Countywide actions
 - Plan implementation and maintenance procedures.

Once this review is complete, the jurisdiction will complete its specific annex using the template and instructions provided by the POC.

- The development of the new jurisdiction's annex must not be completed by one individual in isolation. The jurisdiction must develop, implement and describe a public involvement strategy and a methodology to identify and vet jurisdiction-specific actions. The original partnership was covered under a uniform public involvement strategy and a process to identify actions that covered the planning area described in Volume 1 and Volume 2 of this plan. Since new partners were not addressed by these strategies, they will have to initiate new strategies and describe them in their annex. For consistency, new partners are encouraged to develop and implement strategies similar to those described in this plan.
- The public involvement strategy must ensure the public's ability to participate in the plan development process. At a minimum, the new jurisdiction must solicit public opinion on hazard mitigation at the onset of the linkage process and hold one or more public meetings to present the draft jurisdiction-specific annex for comment at least two weeks prior to adoption by the governing body. The POC will have resources available to aid in the public involvement strategy, including:
 - The questionnaire utilized in the plan development
 - Presentations from public meeting workshops and the public comment period
 - Flyers and information cards that were distributed to the public
 - Press releases used throughout the planning process
 - The plan website.
- The methodology to identify actions should include a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard and a description of the process by which chosen actions were identified. As part of this process,

linking jurisdictions should coordinate the selection of actions amongst the jurisdiction's various departments.

- Once their public involvement strategy and template are completed, the new jurisdiction will submit the completed package to the POC for a pre-adoption review to ensure conformance with the multi-jurisdictional plan format and linkage procedure requirements.
- The POC will review for the following:
 - Documentation of public involvement and action plan development strategies
 - Conformance of template entries with guidelines outlined in instructions
 - Chosen actions are consistent with goals, objectives and mitigation catalog of the Santa Clara Operational Area Hazard Mitigation Plan
 - A designated point of contact
 - A completed FEMA plan review crosswalk.
- Plans will be reviewed by the POC and submitted to California Governor's Office of Emergency Services (Cal OES) for review and approval.
- Cal OES will review plans for state compliance. Non-compliant plans are returned to the lead agency for correction. Compliant plans are forwarded to FEMA for review with annotation as to the adoption status.
- FEMA reviews the linking jurisdiction's plan in association with the approved plan to ensure DMA compliance. FEMA notifies the new jurisdiction of the results of review with copies to Cal OES and the approved plan lead agency.
- Linking jurisdiction corrects plan shortfalls (if necessary) and resubmits to Cal OES through the approved plan lead agency.
- For plans with no shortfalls from the FEMA review that have not been adopted, the new jurisdiction governing authority adopts the plan and forwards adoption resolution to FEMA with copies to lead agency and Cal OES.
- FEMA regional director notifies the new jurisdiction's governing authority of the plan's approval.

The new jurisdiction plan is then included with the multi-jurisdiction hazard mitigation plan and the linking jurisdiction is committed to participate in the ongoing plan maintenance strategy identified in Volume 1 of the hazard mitigation plan.

SANTA CLARA OPERATIONAL AREA HAZARD MITIGATION PLAN

Appendix C. STATUS OF PRIOR ACTIONS

This annex provides the status of prior actions identified by the planning partnership in the Association of Bay Area Governments (ABAG) regional hazard mitigation planning effort.

- Santa Clara County
- City of Campbell
- City of Cupertino
- City of Gilroy
- Town of Los Altos Hills
- Town of Los Gatos
- City of Monte Sereno.
- City of Morgan Hill
- City of Mountain View
- City of Palo Alto
- City of Santa Clara
- City of Saratoga
- City of Sunnyvale

Not all current planning partners obtained coverage under the DMA through the ABAG plan, thus, not all planning partners have status updates in this annex. It should be noted that the City of Los Altos and the City of San José may have participated in the plan, but no actions were identified and no proof of formal adoption was located.

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
City of Campbell						
Soft-Story Buildings	1	Require all new construction, including public facilities, to be built according to the most recent Building and Fire Codes.	Public Works department, Community Development department	Complete	Yes	The City is currently using the 2016 Building Code for soft-story buildings. The City has also completed an inventory of soft-story multi-family units in Campbell. See CB-12.
Soft-Story Buildings	2	Consider County Ordinance to require retrofitting of multi-family soft story structures. Consistent with the ABAG definition, "multi-family" buildings consist of three or more families.	Public Works department, Community Development department	No Progress	No	The City is not aware of the status of the County Ordinance.
Soft-Story Buildings	3	Address liability concerns and obtain full access to SJSU CDM soft story inventory. Poll building owners to find out how many have already retrofitted their soft-story buildings, or if they are consistent with current code.	Public Works department, Community Development department	No Progress	No	This recommendation has not been implemented and is no longer being considered.

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
Soft-Story Buildings	4	Support City of San José initiative to develop Soft-Story Mitigation Program via UASI funding. Program will entail public education materials, engineering standards and financial incentives.	Public Works department, Community Development department	No Progress	No	The status of San José's program is unknown.
Soft-Story Buildings	5	Create financial incentives and remove disincentives.	Public Works department, Community Development department	No Progress	No	We are not considering this option any longer
Soft-Story Buildings	6	Implement time limits on retrofitting mandates and incentives.	Public Works department, Community Development department	Some Progress	No	We are currently working on completing our URM program. See CB-7
Soft-Story Buildings	7	Advocate expansion of State and federal relocation assistance funds and programs to aid persons and businesses displaced from hazardous buildings.	Public Works department, Community Development department	No Progress	No	We are not considering this option any longer
Dam Failure	8	Create and distribute evacuation route maps	Public Works department, Community Development department	No Progress	No	Our current EOP addresses issues related to evacuation and we now have a robust CERT program in Campbell, which we didn't have when the ABAG plan was created.
	HSNG-e-4	Adopt one or more of the following strategies as incentives to encourage retrofitting of privately- owned seismically vulnerable residential buildings: (a) waivers or reductions of permit fees, (b) below-market loans, (c) local tax breaks, (d) grants to cover the cost of retrofitting or of a structural analysis, (e) land use (such as parking requirement waivers) and procedural incentives, or (f) technical assistance.	Building Department	No Progress	No	This recommendation has not been implemented and is no longer being considered.

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	LAND-c-5	Encourage new development near floodways to incorporate a buffer zone or setback from that floodway to allow for changes in stormwater flows in the watershed over time.	Community Development	No Progress	No	This recommendation has not been implemented and is no longer being considered.
	LAND-c-6	For purposes of creating an improved hazard mitigation plan for the region as a whole, ABAG, and Bay Area cities and counties, jointly request geographically defined repetitive flooding loss data from FEMA for their own jurisdictions.	Community Development	Complete	No	We received this data as part of this process
City of Cupertino						
Soft-Story Buildings	1	Require all new construction, including public facilities, to be built in accordance with the most recent Building and Fire Code standards.	Public Works department, Community Development department	Ongoing	Yes	Incorporate these projects in the City's Capital Improvement Plan as appropriate, and seek funding from HMGP (See CPT-1).
	ECON-b-1	Require engineered plan sets for voluntary or mandatory soft-story seismic retrofits by private owners until a standard plan set and construction details become available.	Building Dept.	Complete	No	Addressed through adopted building codes.
	ENVI-a-3	Continue to enforce and/ or comply with State- mandated requirements, such as the California Environmental Quality Act and environmental regulations to ensure that urban development is conducted in a way to minimize air pollution. For example, air pollution levels can lead to global warming, and then to drought, increased vegetation susceptibility to disease (such as pine bark beetle infestations), and associated increased fire hazard.	Environmental Programs, Environmental Affairs, Community Development	Ongoing	Yes	2005 General Plan includes Sustainability Section outlining methods to achieve these goals. The city is seeking funding (\$200k) to develop a Sustainable Land Use Plan and Green Building Policy that would expand these land-use based mitigation strategies (see CPT-2) .
	ENVI-b-11	Increase recycling rates in local government operations and in the community.	Public Works Sustainability	Ongoing	Yes	See CPT-4

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	GOVT-a-4	Conduct comprehensive programs to identify and mitigate problems with facility contents, architectural components, and equipment that will prevent critical buildings from being functional after major natural disasters. Such contents and equipment includes computers and servers, phones, files, and other tools used by staff to conduct daily business.	Public Works, IT	Ongoing	Yes	See CPT-5
	ENVI-b-13	Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.	Environmental Affairs	Ongoing	Yes	See CPT-6
City of Gilroy						
	1	Establish a relationship with local service providers to ensure a backup system/ process for telephonic communication with a local PSAP.	Police Department, Fire OES	On-Going	Yes	Continue/ maintain a relationship with local service providers to ensure a backup system/ process for telephonic communication with a local PSAP (see GIL-1).
	2	Using the identified soft story maps to target the existing structures, develop a program to retrofit soft story apartment buildings in Gilroy.	Community Development Department; Building, Life, and Environmental Safety Division	Cancelled	No	Cancelled due to lack of funding and programmatic will
	3	Develop a plan for a cooperative program to retrofit or tear down unreinforced masonry buildings (downtown).	Community Development Department; Building, Life, and Environmental Safety Division	On-Going	Yes	Continue/ maintain a plan for a cooperative program to retrofit or tear down unreinforced masonry buildings (downtown) (see GIL-2).

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	4	Reinforce/ retrofit existing structure to meet current building code standards for essential facility seismic safety	Public Works Department	On-Going	Yes	Continue/ maintain to reinforce/ retrofit existing structure to meet current building code standards for essential facility seismic safety (see GIL-3).
	5	Provide stand-by generators to Las Animas Fire Station, Senior Center, Wheeler Auditorium, and Community Room at Las Animas Park.	Public Works Department	Incomplete	Yes	Consider various means and alternates to supplying all city essential facilities with backup power generation capability. Examples of critical facilities include, but are not limited to: City Hall, Fire Stations, Senior Centers, Auditorium, Community Room's, alert and warning facilities etc. (See GIL-4).
LAND-c-6		For purposes of creating an improved hazard mitigation plan for the region as a whole, ABAG, and Bay Area cities and counties, jointly request geographically defined repetitive flooding loss data from FEMA for their own jurisdictions.		Cancelled	No	No longer ABAG planning effort

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
City of Monte Sereno						
	1	The City of Monte Sereno is seeking to implement an effective hillside emergency response plan including evacuation route mapping in the next few years. The Hillside plan should also include an effective evaluation of at risk structures based on available building permit information, location of site and topography of the site.	Building Dept.	No Progress	Yes	Continually develop and improve the means and methods of integrating more fully the EM decision making processes of the City of Monte Sereno and the Town of Los Gatos to improve both jurisdiction’s EM programs and planning capability through all phases of the EM cycle, including Post-Disaster policies/ plans (See MTS-2).
	2	Create an outreach program for city residents on actions they can take to reduce the impacts of disasters to their properties.	Planning Dept.	Ongoing	Yes	Develop a public outreach and education program for city residents to learn about actions they can take to reduce the impacts of disasters to their properties and integrate with any applicable Operational Area's public engagement strategies (see MTS-11).
	INFR-c-2	Develop a coordinated approach between fire jurisdictions and water supply agencies to identify needed improvements to the water distribution system, initially focusing on areas of highest wildfire hazard (including wildfire threat areas and in wildland-urban-interface areas).	Building Dept.	Ongoing	Yes	Participate, as appropriate, in the update and improvement of the Operational Area CWPP (see MTS-6).

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
City or Morgan Hill						
	1	Butterfield Channel - Inlets/ outlets at road crossings become overgrown with volunteer reeds and willows. Annual task of clearing vegetation requires extensive hand labor in a difficult to access location. Construct concrete aprons at culvert openings and drain outlets to keep areas clear of vegetation growth to allow water flow and visibility for inspection.	City of Morgan Hill	No Progress	Yes	Continue with plans for concrete aprons. Annual program to remove vegetation from channel has lessened the need for the aprons (see MGH-16).
	2	E. Dunne at Flaming Oaks valley gutter at top of slope - Slope above this location on E. Dunne has had slides each winter for the past few years. Concrete valley gutter above slope is in poor condition. Concrete v-ditch needs reconstruction	City of Morgan Hill	Complete	No	Action is complete.
	3	Spring St. & Bisceglia - Frequent flooding due to slow drainage to creek. While it would not resolve the problem completely, installing a new outlet in the creek channel on the south side of Spring, at a lower elevation than existing, would delay flooding and speed drainage.	City of Morgan Hill	No Progress	Yes	Most effective if outlet is lowered after Upper Llagas Flood Control project. Most likely time for that is 2020 (see MGH-17).
	4	Burnett at Monterey - Flooding at intersection due to slow drainage. Nowhere for water to go once ditch on the west side of Monterey is full. Need facilities to direct stormwater out of this area or increase retention capacity	City of Morgan Hill	No Progress	Yes	Pages 38 & 39 of FY 20116/ 17 CIP (see MGH-18).
	6	Main at Casa - High School parking lot floods when ditch on Main fills up. Need facilities to direct stormwater out of this area or increase retention capacity	City of Morgan Hill	No Progress	Yes	No identified funding source. See MGH-19.

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	7	Mission View & Half Road - Flooding. Raise pavement level at intersection or install storm drains	City of Morgan Hill	Ongoing	Yes	Most likely method for accomplishment is development activity in the area. See MGH-20.
	8	1390 Llagas below Castle Hill - Flooding over roadway and onto residential property three inlets become clogged. Improve inlets, ditch across street from house	City of Morgan Hill	Complete	No	Action is complete.
	9	Trail Dr. drainage channels (4) - Channels erode and silt up downstream catch basins. Construct series of step pools to slow flow and reduce silting in each channel (includes channel above Jackson School)	City of Morgan Hill	Complete	No	Action is complete.
	10	Circle Lane & Oak View - Inlet silts up. Install concrete and/ or riprap	City of Morgan Hill	No Progress	Yes	To be re-evaluated to determine the appropriate repair (see MGH-21).
	11	Cochrane Circle - Area floods frequently -storm drains are full of roots and likely damaged. Need to use root cutter throughout then video inspection to assess condition	City of Morgan Hill	Complete	No	Action is complete.
	12	Llagas Rd between Castle Ridge & Glen Ayre - Inlets on uphill side of road fill with dirt every year. Need to build up retaining structure at each inlet	City of Morgan Hill	Unclear/ Unactionable Strategy	No	This recommendation has not been implemented and is no longer being considered.
	13	Sabini Ct. - Resident filled in ditch on his own property so street floods during heavy storms. Need drain to nearby channel	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).
	14	16355 Oak Canyon Dr. - Inlet fills with dirt. Needs concrete apron	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).
	15	Hill Rd. & E. Dunne Ave. - Inlet in dirt field is too low and fills with dirt. Streets crew has to place straw wattles around inlet every year. Raise inlet level and install surrounding concrete apron	City of Morgan Hill	Complete	No	Action is complete.

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	16	16817 Gallop Dr. - Inlet above Gallop needs re-work, some cobbles are loose. Re-design to reduce sediment build up, provide access from street (currently have to use resident's driveway)	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).
	17	17661 Peak Ave. - Alley drain can't receive water volume so back yard floods. Increase inlet capacity	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).
	18	Fisher Creek retention basin - During big storm of 10/ 13/ 09 Fisher Creek flooded but large retention pond had little water in it. Lower elevation of large pond inlet so it retains more water during major storms	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).
	19	17910 Woodland Ave - Erosion near booster station, undermining edge of road. Repair erosion damage	City of Morgan Hill	Complete	No	Action is complete.
	20	Teresa Ditch (behind homes on Teresa Lane) - Sediment from dirt ditch regularly clogs downstream storm drain. Improve ditch to reduce silting	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).
	21	Downtown storm drains - Some storm catch basins in the old part of town are made of brick. Would need to do a survey to identify locations. Replace brick catch basins	City of Morgan Hill	No Progress	No	This recommendation has not been implemented and is no longer being considered.
	22	2776 Hayloft Ct - Water collects at bottom of driveway, has nowhere to go and asphalt curb is deteriorating. Investigate installing a catch basin & replacing curb/ gutter area	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	23	16115 Condit, at Ramada Inn - Catch basin in street in front of the Ramada collects water from the parking lot but is not connected to any storm drain. Extend storm drain so water from parking lot and street drain. This location floods during major storms.	City of Morgan Hill	No Progress	Yes	Future drainage project (see MGH-22).
	24	Butterfield Channel between Diana & Main - Sediment has raised bottom of channel to level higher than storm drain invert in two locations. Remove sediment from channel to designed level	City of Morgan Hill	Complete	No	Action is complete.
	25	6" pump to pump out flooded areas - Areas subject to flooding that could require use of a large pump: Monterey underpass, Bisceglia, Tennant & Railroad, California Ave. (sewer). Public Works has one 6" pump but needs another to be able to pump more than one location at a time as would be likely during a major storm	City of Morgan Hill	Complete	No	Action is complete.
	26	A 1% flood on Llagas Creek will affect more than 1,100 homes, 500 commercial and industrial buildings, and 1,300 agricultural acres. Llagas Creek Flood Protection Project	U.S. Army Corps of Engineers, Santa Clara County	Ongoing	Yes	Sponsor for project is Santa Clara Valley Water District. This project included in their CIP (see MGH-23).

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
City of Mountain View						
	3	Funding to develop and maintain a Business Continuity Plan and Disaster Recovery Plan. A Business Continuity Plan includes minimizing interruptions to the City's ability to provide its services, ensuring the health and safety of all personnel, minimizing financial loss, and being able to resume critical operation within a specified time after a disaster. A Disaster Recovery Plan describes how the City will deal with potential disasters and details the precautions that need to be taken so that the effects of a disaster will be minimized and the City will be able to either maintain or quickly resume mission-critical functions.	Fire Dept./ Office of Emergency Services	No Progress	Yes	See actions MTV-1 and MTV-2
City of Palo Alto						
	1	To mitigate the potential loss of the Civic Center (City Hall) complex, which houses the Police Department, the Fire Department, the 911 Dispatch Center, the legacy Emergency Operations Center, and other essential operations, the Palo Alto Police Department acquired and has now deployed a Mobile Emergency Operations Center vehicle, capable of sustaining 911 PSAP, Dispatch, EOC, and other command functions for a sustained period, even with the loss of the Civic Center. However, the need to replace critical infrastructure and facilities, such as the public safety building, remains.	City of Palo Alto	Ongoing	Yes	The Public Safety Building is currently in initial design stages. It is a City Council priority and funding has been programmed for this project. We hope to see groundbreaking of this project within five years (See PA-10).

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	3	The city plans to seek grant funding and is spending current budget on mitigation measures in the foothills Wildland Urban Interface (WUI), both for fire as well as law enforcement missions.	City of Palo Alto	Ongoing	Yes	Palo Alto provides annual General Funds for mitigation measures following the Foothills Fire Protection Plan. In 2016 Palo Alto updated the Foothills Fire Protection Plan and also completed an annex to the Santa Clara County Community Wildfire Protection Plan (CWPP) (See PA-27).
	4	Communications - The city is beginning work on exploring new off-the-grid (solar powered, etc.) data communications systems and related technologies that would 1) support the continuity of key government functions and 2) would also tie-in community entities (businesses, neighborhoods, NGOs). Augmentation of existing GIS and computer aided dispatch (CAD) systems are also envisioned.	City of Palo Alto	In-progress	Yes	See PA-14.
	6	The City is also negotiating with PG&E and other parties to establish an additional electric transmission feed to the city. Existing connections to the city are vulnerable to being impacted by aircraft from the local airport. The new electric transmission feed will provide an alternate source in case the existing connections are interrupted.	City of Palo Alto	Ongoing	Yes	The Utilities Department will continue to work with PG&E and community stakeholders to assess the feasibility of this effort over the next five year period (See PA-21).

Category	2011 No.	2011 Strategy	Responsible Agency	Status	Carry Forward to New Plan?	Comments
	7	Develop a comprehensive flood control plan for San Francisquito Creek to minimize the risk of flooding.	San Francisquito Creek Joint Powers Authority, US Army Corps of Engineers	Ongoing	Yes	In conjunction with the SFCJPA, Palo Alto has developed a flood control plan to mitigate flooding along the San Francisquito Creek. The initial flood control project is underway, and funding mechanisms are in place to execute additional flood control projects in the near and long term. (Several specific projects identified in action plan)
City of Santa Clara						
	1	Upgrade the City's storm water pump stations. The City is in hopes of requesting pre-disaster mitigation grant funding as a possible solution for upgrades and equipment replacement for the aging infrastructure.	City of Santa Clara Public Works Department	Complete	No	Complete

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	2	<p>Recoat the at grade steel tanks to extend the useful life of these assets.</p> <p>The City’s Downtown Tank is a welded steel water storage tank built in 1975 with a capacity of 4.5 million gallons. The original tank coating has reached the end of its useful life and is in need of replacement. The project scope of work includes abrasive blasting and recoating of the interior and exterior of the tank, replacement of the existing ladders and water level indicator, upgrade of the existing access hatches, piping modifications, and other safety improvements. A Water Tank Improvement Project was recently awarded by the Santa Clara City Council on March 29, 2011. This Water Capital Improvement Multi-year Plan is for like work on the remaining five at-grade steel water storage tanks</p>	City of Santa Clara Public Works Department	Complete	No	Complete
	GOVT-d-2	Recognize that emergency services is more than the coordination of police and fire response; it also includes planning activities with providers of water, food, energy, transportation, financial, information, and public health services.	City of Santa Clara Public Works Department	Complete	No	Complete
City of Saratoga						
Earthquakes	1	Implement mitigation strategies (placement of engineered fill, construction of retaining walls) in order to eliminate the potential for landslide areas to become critical hazards.	Public Works Development	ONGOING	YES	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 (see SAR-3).

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Earthquakes	2 (ECON b-3, b-4, b-7; HSNB c-3, c-4, c-7)	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. The City of Saratoga has approximately 50 privately owned soft story buildings that have not been retrofitted to meet current seismic standards.	Community Development	ONGOING	YES	The City has inventoried existing soft story buildings within its jurisdiction (See SAR-13)
Flood	3 (INFR Flooding d-5, d-6)	Install new underground storm drainage throughout most vulnerable areas in the City, particularly in the Monte Vista/ El Camino Grande and Chester Avenue areas.	Public Works Development	ONGOING	YES	The City currently has approximately \$750,000 in needed storm drain upgrades; however, we do not have funding to pursue these improvements (see SAR-2, 4, 5, 7)
	GOVT-d-3	Recognize that a multi-agency approach is needed to mitigate flooding by having flood control districts, cities, counties, and utilities meet at least annually to jointly discuss their capital improvement programs for most effectively reducing the threat of flooding. Work toward making this process more formal to insure that flooding is considered at existing joint-agency meetings.	Santa Clara Valley Water District	ONGOING	YES	See SAR-14
City of Sunnyvale						
	1	To mitigate the failure of the water system, the City is proposing to retrofit the key water infrastructure components at risk.		In-progress	Yes	See SNY-1 and SNY-2
	INFR-a-4	Retrofit or replace critical lifeline infrastructure facilities and/ or their backup facilities that are shown to be vulnerable to damage in natural disasters.	Public Works, Field Services and Environmental Divisions	In-progress	Yes	See SNY-1 through SNY-5 and SNY-10

GOVT-a-1	Assess the vulnerability of critical facilities (such as city halls, fire stations, operations and communications headquarters, community service centers, seaports, and airports) to damage in natural disasters and make recommendations for appropriate mitigation.	Community Services, Facilities, Public Works, Field Services	Ongoing	No	<p>PWs conducted a vulnerabilities assessment of the City's water system 2004. Other efforts are ongoing.</p> <ol style="list-style-type: none"> 1. The City has all buildings that are regularly occupied inspected on an annual basis for safety and hazard issues. These include internal wiring, storage of hazardous materials, tripping hazards, proper furniture anchoring, etc. 2. Emergency back-up power has been evaluated and identified as including equipment that is old, though rarely used. Plans are being developed to update, replace or back-up emergency generators to provide increased assurance of operation in the case of a loss of primary power. The City also has service agreements with two vendors to provide on-call service when necessary to the emergency power systems. 3. A number of City buildings are in close proximity to very large redwood trees, that could cause significant damage if they come down on adjacent buildings. This includes City Hall, City Hall Annex, South Annex, Library and various fire
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						stations. The trees are inspected annually for weakness or disease. See SNY-10.
Santa Clara County (Unincorporated Areas)						
Wildland Urban Interface	10.a	<p>County-Wide CWPP - Create an integrated county-wide CWPP and get it online. Communities have very different needs and these would have to be addressed. Market and promote collaboration of agencies in WUI areas with signs, etc.... CWPP would need approval from Board of Supervisors, CalFire and the local fire agency. There is a strong feeling that active involvement from the county-wide stakeholders would make a huge difference.</p> <p>a. Create defensible space programs on a county-wide basis.</p>	<p>County Fire Funding: FY 2010 Assistance to Firefighters Grant Program Fire Prevention and Safety Grants; HMGP, PDM</p>	In-progress	Yes	The CWPP was completed in September, 2016. Need to get all signatory entities to accept the county-wide CWPP, which is in progress (see SCC-1).
Wildland Urban Interface	13	<p>Tactical Database - Prepare tactical information database and accurate maps ready for Incident Commanders to access when necessary. Refer to the "Los Padres model. Develop an evacuation plan for isolated communities. Evacuation routes serve the tri-role of evacuation, response and fire lines. We need to bring it all together with appropriate stakeholders (CalTrans, CHP, etc....) (Example CHP closes Highway 17 @Madrone Drive due to Wildfire. If 17 traffic goes Into Redwood Estates it's a narrow maze. If 17 traffic goes to Old Santa Cruz Highway they have 2 ways out. Does CHP know this? Sheriff's Office? Signage could be critical. Need Focused Tactical Planning for problem areas).</p>	<p>Funding is provided by grants from federal, state and private resources.</p>	In-progress	Yes	Continue to prepare resources (electronic, guideline references, checklists, maps, plans, etc.) in collaboration with CalFire and Santa Clara County (See action SCC-35)

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Wildland Urban Interface	14	County-Wide Task Force - Establish a county-wide Wildfire Mitigation Task Force to study the problem and coordinate efforts. Get critical stakeholders involved early in the process. A core body and extended body could be used to make efficient use of time.	Coordinate with CAL Division of Forestry, local Fire Departments & USFS; BLM	In-progress	Yes	Cal Fire and County Fire have been working together for several years to study areas susceptible to vegetation fire and develop pre-plans for response. Also included both Cal Fire and County Fire advising the FireSafe Council on projects we feel are higher priorities. (See actions SCC-2 and SCC-3)
Wildland Urban Interface - Supplemental	17	Research and evaluate best practices. The Lexington Hills model built relationships with private property owners. Association of Bay Area Governments (ABAG) has resources available for reference. San Bernardino County and San Diego County have had frequent practice and collaboration within this area	Santa Clara County FireSafe Council	Complete	Yes	County Fire/ Cal Fire/ FireSafe Council and others continue to collaborate with other entities regarding latest research on best practices (i.e. Be Ember Aware). This is done through conferences, seminars and invitations to attend other area FireSafe Council meetings. Many of the local and regional stakeholders and interested parties have participated in guided tours through areas which have suffered significant wildfire events (Valley Fire in 2015 and Loma Fire in 2016). (See action SCC-3)

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Information-Sharing	19	Create a Santa Clara County Infrastructure Council (or equivalent) as an institutional receptacle for matters pertaining to infrastructure data-sharing efforts.	County OES/EOAC/ ISD	Not started	Yes	Create/ Incorporate Santa Clara County Information Sharing Council (or equivalent) as an institutional receptacle for matters pertaining to infrastructure data-sharing efforts. (See SCC-5)
Information-Sharing	19.a	Santa Clara County Infrastructure Council - Approach infrastructure providers and ask them to become partners in this council.	County OES/EOAC/ ISD	Not Started	Yes	Reach out to the departments and agencies who maintain data that can be used for Emergency Management. Also, consider inviting the local private sector to the council. (See SCC-5)
Information-Sharing	19.b	Santa Clara County Infrastructure Council - Create an agenda in cooperation with council partners. Anticipated agenda items are: <ul style="list-style-type: none"> i. Recognize the legitimate concerns of the private sector in sharing critical infrastructure information, and address those concerns with reasonable measures (PCII, need-to-know, encryption, etc....) ii. Initially focus on water and/ or power providers to build success and momentum. 	County OES/EOAC/ ISD	Not started	Yes	Create an agenda in cooperation with council partners. Anticipated agenda items are: <ul style="list-style-type: none"> i. Recognize the legitimate concerns of the private sector in sharing critical infrastructure information, and address those concerns with reasonable measures (PCII, need-to-know, encryption, etc....) ii. Initially focus on water and/ or power providers to build success and momentum. (See SCC-5)

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Information-Sharing	19.c	Santa Clara County Infrastructure Council - Host Council meetings and meet on a quarterly basis.	County OES/EOAC/ ISD	Not started	Yes	Host Council meetings and meet on a quarterly basis. (See SCC-5)
Information-Sharing	19.e	Santa Clara County Infrastructure Council - Develop a common architecture interface for data to be shared between members. Request utilities provide agreed-upon information in digital, dynamic format and create a commonality of layers. Use WebEOC infrastructure for mitigation and emergency response efforts.	ISD/ GIS	On-Going	Yes	Develop, or discover, a common architecture interface for data to be shared between members. Request utilities provide agreed-upon information in digital, dynamic format and create a commonality of layers. (See SCC-5, SCC-8 and SCC-10)
Information-Sharing - Supplemental	19.g	Santa Clara County Infrastructure Council - Invite Santa Clara County FireSafe Council to join and give them access to information through WebEOC that they need. For example, they can't build a fuel break without authorization due to property boundaries. Good GIS information can facilitate this process. Well-mapped evacuation routes should be available to stakeholder agencies and the public. "Blue hydrants" could be mapped for the local fire departments.	County OES/EOAC/ ISD	Not started	Yes	Invite Santa Clara County FireSafe Council to join and give them permission to contribute and access information through sharing portals which may include WebEOC that they need. For example, they can't build a fuel break without authorization due to property boundaries. Good infrastructure GIS information can facilitate this process. Well-mapped evacuation routes should be available to stakeholder agencies and the public. Assessment of "Blue hydrants" could be mapped for the mapping by local fire departments (see SCC-5).

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Information-Sharing - Supplemental	22	Coordinate with the private sector on prioritization of critical facilities before and during restoration of utility services.	ISD/ GIS	Incomplete	Yes	Coordinate with the private sector on prioritization of critical facilities before and during restoration of utility services (See SCC-35)
Flood Mitigation	23	Survey the cities to verify their plan for replacing and/ or upgrading localized flooding pump systems and generating alternate power. Based on results, scope potential project to upgrade systems county-wide.	Council, SCVWD, Santa Clara City and San José Funding: County Staff Time, HMGP or PDM	Complete	No	Santa Clara City and San José are concerned that water is pumped up and over levees into the Guadalupe River. Streets are lower than the levee. If the power goes down, residents are at risk if the pumps are not operating. Gilroy and Morgan Hill do not have this risk, only risk to cities that touch the bay. The problem will be exacerbated by sea level rise.
Flood Mitigation	24	Build a GIS layer of localized flooding “hot spots” throughout the County.	Funding: County Staff Time, HMGP, PDM (any grants or potential for funds from SCVWD?)	Complete	Yes	Maintain and update a GIS layer of localized flooding “hot spots” throughout the County (see SCC-6).
Flood Mitigation	25	Scope potential projects to make localized flooding hot spots deeper and bigger.		Unclear/ Unactionable Strategy	No	The intent of this action is not clear.
Flood Mitigation	26	Scope potential projects to mitigate existing at-risk levee bridges.		No Progress	No	Dependent on completion of other actions. To be considered at a later date.

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Flood Mitigation	27	Scope potential vegetation removal projects to expedite the flow of water away from communities and into water outlets. target high priority waterways; walk/ drive channels		Unclear/ Unactionable Strategy	No	The intent of this action is not clear.
Flood Mitigation	28	Verify with the Water District their plans for managing the risks of the oldest levees in County.		Not started	No	Dependent on completion of other actions. To be considered at a later date.
Catastrophic Dam Failure - Supplemental	34	Use GIS to evaluate catastrophic dam failure scenarios.	SCVWD	Complete	Yes	Maintain and update GIS to evaluate catastrophic dam failure scenarios. (See SCC-7)
Catastrophic Dam Failure - Supplemental	40	Evaluate “Domino Dam Effect” for potential mitigation.	SCVWD	Unclear/ Unactionable Strategy	No	Status of action is unclear as mead agency did not participate in plan update.
Town of Los Altos Hills						
		Create resources to assist neighbors in knowing and helping neighbors.	Los Altos Hills County Fire District, LAH Parks & Red, LAH City Manager/ Office of Emergency Services	Ongoing	Yes	See Action LAH-1
		Continue tree trimming programs, brush clearance, and other defensible space outreach efforts as necessary to minimize the potential for road blockage. Maintenance of brush and vegetative growth for fire prevention is addressed in Section 4-2.115 and 4-2.116 of the Los Altos Hills Municipal Code.	LAHCFD and Public Works	Ongoing	Yes	See Action LAH-2
		Develop additional public education and outreach programs.	City Manager/ OES	Ongoing	Yes	See Action-LAH-3

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		Prepare a comprehensive evacuation plan focusing on potential wildland fire threats and identifying potential evacuation routes.	City Manager/ OES/ Fire/ Law/ Public information officer	Ongoing	Yes	See Action LAH-4
		Participate in County organized efforts to develop a countywide Community Wildfire Protection Plan.		Ongoing	Yes	See Action LAH-5
		Evaluate options and resources available to support home owners in completing seismic retrofits.		Ongoing	Yes	See Action LAH-6
		Coordinate with the appropriate state and county agencies to develop a comprehensive list of bridges and overpasses within Los Altos Hills and who is responsible for their maintenance.		Ongoing	Yes	See Action LAH-7
Town of Los Gatos						
Soft-story buildings	1	The Town will inventory and map, using GIS, the location of soft-story buildings. The maps will be available to first responders during emergencies.	Town of Los Gatos	Ongoing	Yes	See LGT-12.
Soft-story buildings	2	The Town will also consider developing a retrofit grant program for building owners. The grant program would be made more possible if the Town is able to secure mitigation grants through having an adopted Hazard Mitigation Plan. This project would also be consistent with General Plan Safety Element Policy SAF Policy 1.5, which calls for the Town to provide incentives for seismic retrofits of structures.	Town of Los Gatos	No Progress	Yes	See LGT-13.

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Wildfire	1	The Town will coordinate with Santa Clara County Fire Department to develop and distribute fire prevention preparedness education information, including evacuation plans for residents. This project would also be consistent with General Plan Safety Element SAF Action 3.3.	County Fire	Complete	No	County fire lead. The Town worked with County Fire to establish evacuation routes and install signs. The Town portion of the item is complete.
Dam failure	1	The Town will coordinate with surrounding jurisdictions that are in the inundation area of the Lexington Reservoir Lenihan Dam to implement a siren warning system.	Town of Los Gatos	No Progress	Yes	See LGT-14.
Dam failure	2	Marketing and public education campaigns for dam failures will also be implemented.	Town of Los Gatos	No Progress	Yes	See LGT-15.
	ENVI-b-4	Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit.	Town of Los Gatos	Ongoing	Yes	See LGT-16.
	ENVI-b-5	Increase the use of clean, alternative energy by, for example, investing in “green tags”, advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology.	Town of Los Gatos	Ongoing	Yes	See LGT-17.
	ENVI-b-6	Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money.	Town of Los Gatos	Ongoing	Yes	See LGT-18.
	HSNG-k-12	Develop a program to provide at-cost NOAA weather radios to residents of flood hazard areas that request them, with priority to neighborhood watch captains and others trained in their use.	Town of Los Gatos	Some Progress	No	Radios were distributed to schools, but a program is not planned for development