



San Mateo County

HAZARD MITIGATION PLAN

July 2016



VOLUME 2





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SECTION 1: ANNEX INTRODUCTION



Chapter 1.

Planning Partner Participation

1.1 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 (44CFR) 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))

In the preparation of the San Mateo County Hazard Mitigation Plan, a Planning Partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act of 2000 (DMA) for as many eligible local governments in San Mateo County 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.” There are two types of Planning Partners in this process, with distinct needs and capabilities:

- ❖ Incorporated municipalities (cities and the County)
- ❖ Special districts.

Figure 3-1 shows the special districts within San Mateo County.

1.2 The Planning Partnership

1.2.1 Initial Solicitation and Letters of Intent

The planning team solicited the participation of the County and all County-recognized special districts with junior taxing authority at the outset of this project. Two meetings were held on October 19, 2015 (via teleconference) and October 27, 2015 to identify potential stakeholders for this process.

A planning process kickoff meeting was held in Belmont on November 18, 2015 to solicit planning partners and inform potential partners of the benefits of participation in this effort. All eligible local governments within the planning area were invited to attend. Various agency and citizen stakeholders were also invited to this meeting. The goals of the meeting were as follows:

- ❖ Provide an overview of the Disaster Mitigation Act.



- ❖ Outline the San Mateo County plan update work plan.
- ❖ Describe the benefits of multi-jurisdictional planning.
- ❖ Solicit planning partners.
- ❖ Confirm a Steering Committee.

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 “notice of intent to participate” that agreed to the planning partner expectations (see Volume 2, Appendix A) and designated a point of contact for their jurisdiction. In all, formal commitment was received from 29 planning partners by the planning team, and the San Mateo County Planning Partnership was formed. Figure 3-1 in Section 3 – Special Districts – shows the location of participating special districts. Maps for each participating city are provided in the individual annex for that city.

1.2.2 Planning Partner Expectations

The planning team developed the following list of planning partner expectations, which were confirmed at the kickoff meeting held on November 18, 2015:

- ❖ Each partner will provide a “Letter of Intent to Participate.”
- ❖ Each partner will support and participate in the selection and function of the Steering Committee overseeing the development of the update. Support includes allowing this body to make decisions regarding plan development and scope on behalf of the partnership.
- ❖ Each partner will provide support for the public involvement strategy developed by the Steering Committee in the form of mailing lists, possible meeting space, and media outreach such as newsletters, newspapers or direct-mailed brochures.
- ❖ Each partner will participate in plan update development activities such as:
 - Steering Committee meetings
 - Public meetings or open houses
 - Workshops and planning partner training sessions
 - Public review and comment periods prior to adoption.

Attendance will be tracked at such activities, and attendance records will be used to track and document participation for each planning partner. No minimum level of participation will be established, but each planning partner should attempt to attend all such activities.

- ❖ Each partner will be expected to perform a “consistency review” of all technical studies, plans, and ordinances specific to hazards identified within the planning area to determine the existence of plans, studies or ordinances not consistent with the equivalent documents reviewed in preparation of the County plan. For example: if a planning partner 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 the partner’s area.





- ❖ Each partner will be expected to review the risk assessment and identify hazards and vulnerabilities specific to its jurisdiction. Contract resources will provide jurisdiction-specific mapping and technical consultation to aid in this task, but the determination of risk and vulnerability will be up to each partner.
- ❖ Each partner will be expected to review the mitigation recommendations chosen for the overall county and determine if they will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the overall plan recommendations will need to be identified, prioritized and reviewed to determine their benefits and costs.
- ❖ 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.
- ❖ Each partner will be required to formally adopt the plan.

It should be noted that by adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. All jurisdictions covered under this plan fulfilled the planning partner expectations outlined in this section.

1.2.3 Linkage Procedures

Eligible local jurisdictions that did not participate in development of this hazard mitigation plan update may comply with DMA requirements by linking to this plan following the procedures outlined in Volume 2, Appendix D.

1.3 Annex Preparation Process

1.3.1 Templates

Templates were created to help the Planning Partners prepare their jurisdiction-specific annexes. Since special 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 44CFR would be met, based on the partners' capabilities and mode of operation. 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 templates and their instructions can be found in Appendix E to this volume of the Hazard Mitigation Plan.

1.3.2 Workshop

A workshop was held on April 20th for Planning Partners to learn about the templates and the overall planning process. Topics included the following:

- ❖ DMA
- ❖ San Mateo County plan background
- ❖ The templates
- ❖ Risk ranking 2.2 pp



- ❖ Developing your action plan
- ❖ Cost/benefit review

Separate sessions were held for special districts and municipalities, in order to better address each type of partner's needs. The sessions provided technical assistance and an overview of the template completion process. In the risk-ranking exercise, planning partners were provided an overview of the methodology associated with establishing jurisdiction-specific risk rankings based on the impact on its population or facilities. Cities based this ranking on probability of occurrence and the potential impact on people, property and the economy. Special districts based 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 county-wide 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 San Mateo County risk assessment results
- ❖ Hazard mitigation catalogs
- ❖ Federal funding and technical assistance catalogs
- ❖ Hazard information for presidentially declared disasters for San Mateo County
- ❖ Aggregate county data for non-declared hazard events from the Spatial Hazard Events and Losses Database (SHELDUS)
- ❖ Copies of partners' prior annexes (Association of Bay Area Governments (ABAG), if applicable)

Eight participating jurisdictions elected to hold an individual jurisdictional workshop that focused on the above bullets with stakeholders from various departments. Of these eight jurisdictions, two participated in the overall jurisdictional workshop and six elected to hire a contractor to guide them through the annex development process:

- ❖ Unincorporated San Mateo County
- ❖ Colma – facilitated by contractor
- ❖ East Palo Alto
- ❖ Redwood City– facilitated by contractor
- ❖ San Carlos– facilitated by contractor
- ❖ Colma Fire Protection District– facilitated by contractor
- ❖ San Mateo County Community College– facilitated by contractor
- ❖ Woodside Fire Protection District– facilitated by contractor

These jurisdictions elected to hold individual workshops because they established jurisdictional subcommittees comprised of planners, building officials, public works personnel, public information officers, and other stakeholders to fulfill the planning partner expectations. Table 1-1 illustrates the additional effort undertaken by these jurisdictions in fulfilling the planning partner expectations beyond minimum requirements.



TABLE 1-1. JURISDICTION SUBCOMMITTEE MEETING DATES

Jurisdiction	Jurisdictional Lead	Date	Topics Covered
Unincorporated San Mateo County	Roberto Bartoli	February 3, 2016	<ul style="list-style-type: none"> ▪ Jurisdictional overview review ▪ Capability assessment review
		March 2, 2016	<ul style="list-style-type: none"> ▪ Overview of Public Involvement Strategy ▪ County SWOO
		April 6, 2016	<ul style="list-style-type: none"> ▪ Review of Risk Assessment and Plan Maintenance
		May 3, 2016	<ul style="list-style-type: none"> ▪ Discussion of Action Plan Development
		June 8, 2016	<ul style="list-style-type: none"> ▪ Review of Draft Annex ▪ Plan approval process discussion
Colma	Michael Laughlin	March 18, 2016	<ul style="list-style-type: none"> ▪ Jurisdictional overview review ▪ Capability assessment review
		April 26, 2016	<ul style="list-style-type: none"> ▪ Workshop items
Redwood City	David Pucci	February 29, 2016	<ul style="list-style-type: none"> ▪ Jurisdictional overview review
		April 13, 2016	<ul style="list-style-type: none"> ▪ Capability assessment review
		May 18, 2016	<ul style="list-style-type: none"> ▪ Workshop items
San Carlos	Tara Peterson	March 18, 2016	<ul style="list-style-type: none"> ▪ Jurisdictional overview review ▪ Capability assessment review
		May 2, 2016	<ul style="list-style-type: none"> ▪ Workshop items
Colma Fire Protection District	Geoff Balton	May 2, 2016	<ul style="list-style-type: none"> ▪ Site walkthrough ▪ Jurisdictional overview review ▪ Capability assessment review ▪ Workshop items
San Mateo County Community College District	Joseph Fullerton	May 3, 2016	<ul style="list-style-type: none"> ▪ Jurisdictional overview review ▪ Capability assessment review ▪ Workshop items
Woodside Fire Protection District	Daniel Ghiorso	May 2, 2016	<ul style="list-style-type: none"> ▪ Jurisdictional overview review ▪ Capability assessment review ▪ Workshop items

1.3.3 Prioritization

44CFR 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 44CFR. The actions were prioritized according to the following criteria:

- ❖ **High Priority**—Project meets multiple plan objectives, benefits exceed cost, funding is secured under existing programs, or is grant eligible, and project can be completed in 1 to 5 years (i.e., short term project) once funded.



- ❖ **Medium Priority**—Project meets at least 1 plan objective, benefits exceed costs, requires special funding authorization under existing programs, grant eligibility is questionable, and project can be completed in 1 to 5 years once funded.
- ❖ **Low Priority**—Project will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, project is not grant eligible, and time line for completion is long term (5 to 10 years).

These priority definitions are dynamic and can change from one category to another based on changes to a parameter such as availability of funding. For example, a project might be assigned a medium priority because of the uncertainty of a funding source, but be changed to high once a funding source has been identified. The prioritization schedule for this plan will be reviewed and updated as needed annually through the plan maintenance strategy.

1.3.4 Benefit/Cost Review

44CFR 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:
 - **High**—Existing funding levels are not adequate to cover the costs of the proposed action; implementation would require an increase in revenue through an alternative source (for example, bonds, grants, and fee increases).
 - **Medium**—The action could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the action would have to be spread over multiple years.
 - **Low**—The action could be funded under the existing budget. The action is part of or can be part of an existing, ongoing program.
- ❖ Benefit ratings:
 - **High**—The action will have an immediate impact on the reduction of risk exposure to life and property.
 - **Medium**—The action will have a long-term impact on the reduction of risk exposure to life and property or will provide an immediate reduction in the risk exposure to property.
 - **Low**—Long-term benefits of the action 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.





It should be noted that for many of the strategies identified in this action plan, funding might be sought under FEMA's HMGP or PDM programs. Both of these programs require detailed benefit/cost analysis as part of the application process. These analyses will be performed on projects at the time of application preparation. The FEMA benefit-cost model will be used to perform this review. For projects not seeking financial assistance from grant programs that require this sort of analysis, the Partners reserve the right to define "benefits" according to parameters that meet their needs and the goals and objectives of this plan.

1.4 Compatibility with Previous Regional Hazard Plan

The jurisdictions listed in Table 1-2 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.

TABLE 1-2. ABAG PARTICIPANTS - 2010

Jurisdiction	Jurisdiction Adoption Date (2010 ABAG)
San Mateo County	March 19, 2012
Atherton	August 17, 2011
Brisbane	March 5, 2012
Burlingame	August 15, 2011
Daly City	March 12, 2011
East Palo Alto	February 21, 2012
Foster City*	November 21, 2011
Half Moon Bay	July 19, 2011
Hillsborough	July 11, 2011
Menlo Park	October 18, 2011
Millbrae	March 13, 2012
Pacifica	March 12, 2012
Portola Valley	May 11, 2011
San Bruno	March 13, 2012
San Mateo, City of*	November 21, 2011

**Did not participate in the 2016 San Mateo County Hazard Mitigation Plan.*

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

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

During the San Mateo County Hazard Mitigation Plan development process, the Steering Committee reviewed the ABAG strategies and concluded that the previous strategy did not adequately provide measurable actions for successful implementation. The Steering Committee reviewed the previous strategy to determine which are relevant to the intent and structure of the San Mateo County planning effort to be carried forwards into



the 2016 plan. The results of this review are located in Volume 1, Appendix E. Each adopted ABAG strategy was identified with one of the following implementation status findings:

- ❖ ABAG strategy has been removed or is no longer feasible due to a lack of clarity, or non-mitigation related implementation of such action.
- ❖ ABAG strategy has been carried over to the current hazard mitigation plan as an alternative action identified in Volume I, Section 3, Chapter 2 (this applies to **bold** alternative actions).
- ❖ ABAG strategy is considered to be addressed by the goals and objectives of the 2016 hazard mitigation plan.
- ❖ ABAG Strategy was eliminated due to duplication (this applies to all strategies that are not listed in the implementation status table of the current plan located in Volume 1, Appendix E).

1.4.1 The City of Redwood City 2010 Hazard Mitigation Plan

The City of Redwood City conducted a hazard mitigation planning process outside of the 2010 ABAG initiative. As such, their jurisdictional annex reflects the status of previous mitigation actions, including action status and carryover, where appropriate.

1.5 Final Coverage under this Plan

Of the 29 committed planning partners, all fully met the participation requirements specified by the Steering Committee. Overall, 28 partners attended the workshop or held their own jurisdictional workshop, 1 partner was individually counseled by members of the Planning Team and Steering Committee, and all subsequently submitted completed templates. Therefore, all participating jurisdictions are included in this volume and will seek DMA compliance under this plan. Each planning partner identified their mitigation strategy and added general actions (G-#) to round out the action item plan. The remaining jurisdictions will need to follow the linkage procedures described in Appendix D of this volume. Table 1-3 lists the jurisdictions that submitted letters of intent and their ultimate status in this plan.

TABLE 1-3. JURISDICTIONAL PARTNER PARTICIPATION STATUS

Jurisdiction	Letter of Intent Date	Attended Workshop?	Completed Template?	Will be covered by this plan?
Unincorporated San Mateo County	December 21, 2015	Yes	Yes	Yes
Atherton	December 15, 2015	Yes	Yes	Yes
Belmont	December 2, 2015	Yes	Yes	Yes
Brisbane	November 5, 2015	Yes	Yes	Yes
Burlingame	December 1, 2015	Yes	Yes	Yes
Colma	November 20, 2015	Yes ^a	Yes	Yes
Daly City	December 2, 2015	Yes	Yes	Yes
East Palo Alto	November 18, 2015	Yes	Yes	Yes
Half Moon Bay	December 1, 2015	Yes	Yes	Yes



TABLE 1-3. JURISDICTIONAL PARTNER PARTICIPATION STATUS

Jurisdiction	Letter of Intent Date	Attended Workshop?	Completed Template?	Will be covered by this plan?
Hillsborough	November 3, 2015	Yes	Yes	Yes
Menlo Park	December 9, 2015	Yes	Yes	Yes
Millbrae	December 16, 2015	Yes	Yes	Yes
Pacifica	November 5, 2015	Yes	Yes	Yes
Portola Valley	November 25, 2015	No ^b	Yes	Yes
Redwood City	December 7, 2015	Yes ^a	Yes	Yes
San Bruno	December 1, 2015	Yes	Yes	Yes
San Carlos	December 2, 2015	Yes ^a	Yes	Yes
South San Francisco	January 4, 2016	Yes	Yes	Yes
Woodside	November 9, 2015	Yes	Yes	Yes
Belmont Fire Protection District	November 18, 2015	Yes	Yes	Yes
Colma Fire Protection District	December 7, 2015	Yes ^a	Yes	Yes
Highlands Recreation District	December 8, 2015	Yes	Yes	Yes
Jefferson Union High School District	November 20, 2015	Yes	Yes	Yes
Pacifica School District	December 7, 2015	Yes	Yes	Yes
San Mateo Community College District	January 13, 2016	Yes ^a	Yes	Yes
Westborough Water District	November 30, 2015	Yes	Yes	Yes
Woodside Fire Protection District	December 17, 2015	Yes ^a	Yes	Yes
North Coast County Water District	December 1, 2015	Yes	Yes	Yes
Mid-Peninsula Water District	December 4, 2015	Yes	Yes	Yes

^a Conducted jurisdiction-specific workshop

^b Counseled by members of the Steering Committee and Planning Team in lieu of workshop attendance

1.6 California Environmental Quality Act

The County and the unincorporated areas have sought exemption from CEQA for the Hazard Mitigation Plan based on four different sections of the CEQA Guidelines:

- ❖ **Section 15183(d):** “The project is consistent with...a general plan of a local agency, and an EIR 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 EIR 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.



Chapter 6.

Town of Colma

6.1 Hazard Mitigation Plan Point of Contact

Primary Point of Contact

Michael P. Laughlin, AICP, City Planner

1190 El Camino Real

Colma, CA 94014

Telephone: 650-757-8896

e-mail Address: michael.laughlin@colma.ca.gov

Alternate Point of Contact

Sherwin Lum, Police Commander

1199 El Camino Real

Colma, CA 94014

Telephone: 650-997-8336

e-mail Address: sherwin.lum@colma.ca.gov

6.2 Jurisdiction Profile

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

- ❖ Date of Incorporation — 1924
- ❖ Current Population — 1,509 (as of January 1, 2016 – CA DOF)
- ❖ Population Growth, Commuting Trends, and Town Visitors — Colma's small population grew between the years 2000 to 2010 from 1,187 to 1,454: increasing by 267 residents or 22 percent. The Association of Bay Area Governments (ABAG) predicts Colma will continue to grow over the next 20 years, albeit not as rapidly, to reach a population of approximately 1,874 in 2030.

TABLE 6-1. POPULATION (ACTUAL AND PROJECTIONS)

Year	Population	Percentage Increase from Previous Decade	Source
2000	1,187 (actual)		U.S. Census 2000
2010	1,454 (actual)	22.4%	U.S. Census 2010
2020	1,700 (projection)	14.5%	Colma Housing Element, 2015
2030	1,874 (projection)	9.3%	Colma Housing Element, 2015
Total projected percentage increase (2000-2030)		46.2%	

In addition to the anticipated growth through 2030 of the Town's living residents, the Town of Colma serves as the primary burial ground for the City and County of San Francisco. Currently, the Town is home to approximately 1.5 million "underground residents" within the Town's cemeteries, with an



estimated 75 individuals interred or processed each day within town limits. These constant additions to the Town's cemeteries make Colma a daily destination for visiting families.

Finally, the strong retail presence within the Town is exemplified by the approximately 3,000 daily commuters who work within town limits and the estimated 5,000 to 10,000 visitors who come to Colma to shop each day. This influx of daily visitors and commuters showcases a need for a strong public information presence in order to ensure individuals from outside of the Town are aware of local resources in case of a disaster or emergency event.

- ❖ **Location and Description** —The Town of Colma is a small town located in the northern portion of San Mateo County, approximately 5 miles south of San Francisco. Colma is 1.98 square miles in size, and is bordered by Daly City to the north and west; San Bruno Mountain to the east; and South San Francisco to the south. Highway 280 is the western boundary for the town and provides primary north/south access to and from the town. Highway 82, the El Camino Real, another north/south route, extends through the center of the town. The Town of Colma serves a regional need for cemeteries along the San Francisco peninsula, with 16 active cemeteries and 2 closed cemeteries that occupy 76 percent of the land area. Much of the remaining land in Colma not in cemetery use is commercial (including two shopping centers, an auto row and cardroom). The small amount of remaining land is in residential use.
- ❖ **Brief History**— Prior to incorporation, the Town of Colma was primarily agricultural in nature, with north/south access along the historic El Camino Real. In the late 1800s, the City of San Francisco began passing a series of laws to prevent new cemeteries and requiring that existing cemeteries be removed from within city limits. Religious, ethnic, and secular groups began purchasing land in Colma to establish cemeteries. Railroad lines extended through the town and brought grieving families with their loved ones to Colma for burial. The town was incorporated in 1924 to protect cemetery land use. As a result, the Town of Colma has a significant number of historic structures and resources. Commercial and residential development followed, and has continued until the present time. In the late 1980s, the Town annexed several residential blocks in the Sterling Park residential neighborhood.
- ❖ **Climate**— Colma's climate is highly influenced by its proximity to the Northern California coast. As a result, temperatures remain moderate throughout the year, with periods of fog and wind during spring and summer months. The warmest time of the year is in the fall, with the average high temperature of 73° occurring in September. December and January tend to be the coldest months, with average low temperatures in the mid-40s. A majority of the seasonal rains occur between November and March, with annual precipitation of approximately 20 inches. (Sources: holidayweather.com and intellicast.com)
- ❖ **Governing Body Format**— The Town of Colma is governed by a five member City Council. Due to the Town's small size, the City Council makes all policy and land use decisions in the Town. The Town employs approximately 51 people in administrative, recreation and police services. The Town has traditionally contracted its public works, building and planning services. Fire services are supplied by a Joint Powers Authority, the Colma Fire Protection District. The major government facilities include a newly expanded town hall, a police station, Sterling Park recreation center, a community center.



The Town owns but does not operate the Historical Association Museum (operation is by the Colma Historical Association). The City Council assumes responsibility for the adoption and implementation of this plan.

- ❖ **Development Trends**— Since Colma has no land area for expansion, any new development will be in-fill development. Colma is anticipating the addition of approximately 89 new residential units within the next 5 years. Colma is also anticipating some commercial property redevelopment on existing sites. The town has completed an urban design study and is in the process of updating its General Plan. These plans anticipate an intensification of land use in the center of the town in the further distant future.

TABLE 6-2. PAST AND ANTICIPATED DEVELOPMENT

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Block & Lot)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2011 to present					
No recent development since 2011					
Known or Anticipated Development in the Next Five (5) Years					
Tealdi Subdivision	Single Family Res.	9	446 B Street (Southside)	None	Anticipated to be completed within the next 5 years
7733 El Camino Real	Res. Townhouses	13	7733 El Camino Real	None	Anticipated to start within next 5 years
Mercy Housing Veteran's Housing project	Affordable apartments	66	1670-1692 Mission Road	None	Anticipated to be completed within the next 5 years
CarMax	Commercial	One new auto dealership structure	455 Serramonte Boulevard	None	Anticipated to open in fall 2017

6.3 Capability Assessment

An assessment of legal and regulatory capabilities is presented in Table 6-3. An assessment of fiscal capabilities is presented in Table 6-4. An assessment of administrative and technical capabilities is presented in Table 6-5. Information on National Flood Insurance Program (NFIP) compliance is presented in Table 6-6. Classifications under various community mitigation programs are presented in Table 6-7. An assessment of education and outreach capabilities is presented in Table 6-8.



TABLE 6-3. LEGAL AND REGULATORY CAPABILITY

	Local Authority	Other Jurisdiction Authority	State Mandated
Building Code Comment: The 2013 California Building Residential, Electrical, Mechanical, Plumbing, Energy, Historical Building, Existing Building, and Green Building Standards Codes, as adopted by the California Building Standards Commission, were adopted by reference by the Town of Colma in January 2015. Town Municipal Code Subchapter 5.04	Yes	No	Yes
Zoning Code Comment: Town of Colma Zoning Codes were most recently updated January 2015, Subchapter 5.03	Yes	No	No
Subdivisions Comment: Town of Colma Subdivision Codes were most recently updated October 2014, Subchapter 5.03	Yes	No	No
Stormwater Management Comment: Town of Colma Stormwater Management Codes were most recently updated June 2011, Subchapter 5.11, and January 2006, Subchapter 3.10. Town complies with latest Regional Water Quality Control Board permit requirements and uses countywide resources found on flowstobay.org	Yes	No	Yes
Post-Disaster Recovery Comment:	No	No	No
Real Estate Disclosure Comment: CA. State Civil Code 1102 requires full disclosure on Natural hazard Exposure of the sale/re-sale of any and all real property.	No	No	No
Growth Management Comment: The Housing Element of the Town of Colma General Plan contains information regarding growth management in Colma. The Housing Element was last updated and adopted in January 2015.	Yes	No	Yes
Site Plan Review Comment: Town of Colma Design Review Procedures were most recently updated January 2015, Subchapter 5.3.300.(d).	Yes	No	No
Environmental Protection Comment: Town of Colma Environmental Protection Codes were most recently updated May 2012, Chapter 3	Yes	No	Yes
Flood Damage Prevention Comment: Town of Colma Flood Management Regulations were most recently updated January 2015, Subchapter 5.03.320 (F Zone regulations under the Zoning Subchapter)	Yes	No	No
Emergency Management Comment: Town of Colma Emergency Management Codes were most recently updated June 2007, Subchapter 1.17	Yes	No	Yes
Climate Change Comment: 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.	Yes	No	Yes
Other Comment: Subchapter 3.04 (Sewers and Water/Wastewater Discharge), September 2011 Subchapter 1.16 (Police Training), January 2006	Yes	No	Yes (Some)
General or Comprehensive Plan Is the plan equipped to provide linkage to this mitigation plan? Yes	Yes	No	Yes



TABLE 6-3. LEGAL AND REGULATORY CAPABILITY

	Local Authority	Other Jurisdiction Authority	State Mandated
Comment: The Town of Colma is in the midst of updating its General Plan to develop a 2035 Vision. To date, the Housing Element (2015) and Circulation Element (2014) have been updated and adopted, a Historic Resources Element (2015) has been drafted, and the Land Use and Urban Design Strategy (2014) has been developed. Until other elements are updated, the Town will refer to its 1999 Land Use Element, Noise Element, Open Space/Conservation Element, Safety Element and Historical Resources Element.			
Capital Improvement Plan	Yes	Yes	No
<i>What types of capital facilities does the plan address?</i> Utility undergrounding, storm drainage and flood control, public facilities and parks, sanitary sewer systems, information technology, and strategies and mandates (i.e., planning). One project listed was begun in coordination with two other jurisdictions.			
<i>How often is the plan updated?</i> The most recent Capital Improvement Plan (CIP) covers Town goals from 2014/15 through 2018/19. Although prior versions of the CIP aren't available, the annual budgets review five years of CIP funding.			
Comment:			
Floodplain or Watershed Plan	No	Yes	No
Comment: Participates in the San Mateo County Flood Control District – Colma Creek Flood Control. As part of this initiative, Colma has participated in the development of multiple plans dedicated to various aspects of flood control and preservation of Colma Creek.			
Stormwater Plan	No	No	No
Comment: The Town is subject to the Countywide NPDES Permit and Countywide storm water requirements, which can be found on flowstobay.org .			
Habitat Conservation Plan	No	No	No
Comment: There are no sensitive habitats in the Town limits.			
Economic Development Plan	Yes	No	No
Comment: The Town has a three phase plan. Phase 3, the final phase of the Town's three-part Strategic Economic Development Plan, was completed in December 2012.			
Shoreline Management Plan	No	No	No
Comment: The Town of Colma does not have any shoreline			
Community Wildfire Protection Plan	No	Yes	No
Comment: The Town of Colma is covered under the San Mateo County CWPP developed by CalFire.			
Forest Management Plan	No	No	No
Comment: The Town of Colma does not have any forests.			
Climate Action Plan	Yes	Yes	No
Comment: Adopted on May 8, 2013. Developed in collaboration with Regionally Integrated Climate Action Planning Suite (RICAPS).			
Other – Disaster Preparedness Guide	Yes	No	No
Comment: A 2-page disaster preparedness guide was prepared in 2011 for Colma residents and businesses.			
Comprehensive Emergency Management Plan	Yes	No	Yes
Comment: Emergency Operations Plan			
Threat & Hazard Identification & Risk Assessment	Yes	No	No
Comment:			



TABLE 6-3. LEGAL AND REGULATORY CAPABILITY

	Local Authority	Other Jurisdiction Authority	State Mandated
Post-Disaster Recovery Plan	Yes	No	No
Comment:			
Continuity of Operations Plan	Yes (Partial)	No	No
Comment: An Executive Order on Succession of Powers was adopted in September 2012; however the Town does not have a full Continuity of Operations Plan. Public Works maintains a MAA for assistance and continuity of public works related operations.			
Public Health Plan	No	Yes	No
Comment: The Town would defer to San Mateo County Health Dept.			

TABLE 6-4. FISCAL CAPABILITY

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes, Sewer Fees, Cal Water, PG&E
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes, Special Gas Tax Fund
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes, Police Grants
Development Impact Fees for Homebuyers or Developers	No; however, this is being considered as a possible future source of funding
Other	No

TABLE 6-5. ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Colma Public Works and Planning Department
Engineers or professionals trained in building or infrastructure construction practices	Yes	Colma Building Department and Public Works Departments
Planners or engineers with an understanding of natural hazards	Yes	Colma Planning Department, Building Department and Public Works Department
Staff with training in benefit/cost analysis	Yes	Available through municipal consulting firm
Surveyors	Yes	Available through municipal consulting firm



TABLE 6-5. ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Staff capable of making substantial damage estimates	Yes	Available through municipal consulting firm
Personnel skilled or trained in GIS applications	Yes	Available through municipal consulting firm
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Police Department
Grant writers	Yes	Available through municipal consulting firm

TABLE 6-6. NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Criteria	Response
When did the community enter the NFIP?	11/1/1979
When did the Flood Insurance Rate maps become effective?	10/16/2012
What local department is responsible for floodplain management?	Colma Public Works Department
Who is your floodplain administrator? (department/position)	Public Works Director
▪ Is this a primary or auxiliary role?	Auxiliary
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	January 2015 (as part of Zoning Ordinance – upholds current IBC standards)
▪ Does your floodplain management program meet or exceed minimum requirements?	Meet for no SFHA
When was the most recent Community Assistance Visit or Community Assistance Contact?	No SFHA
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program?	No
Does your jurisdiction participate in the Community Rating System (CRS)?	No
How many Flood Insurance policies are in force in your jurisdiction?	4
▪ What is the insurance in force?	\$3,600,00
▪ What is the premium in force?	\$12,840
How many total loss claims have been filed in your jurisdiction?	2
▪ How many claims were closed without payment(CWOP)/are still open?	1 CWOP
▪ What were the total payments for losses?	\$1,795.76



TABLE 6-7. COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	Yes	4/9	N/A
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A

TABLE 6-8. EDUCATION AND OUTREACH

Criteria	Response
Do you have a Public Information Officer or Communications Office?	Yes/City Manager
Do you have personnel skilled or trained in website development?	Yes/Administrative Assistant
Do you have hazard mitigation information available on your website? ▪ If yes, please briefly describe.	Yes Link to Local Hazard Mitigation Plan Annex and Strategies Master Spreadsheet
Do you utilize social media for hazard mitigation education and outreach?	No, but may do so in the future
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No. City Council would address hazard mitigation.
Do you have any other programs already in place that could be used to communicate hazard-related information? ▪ If yes, please briefly describe.	Yes Monthly newsletter to residents, quarterly newsletter to businesses or email blast to businesses. Reverse 911 capabilities for emerging threats.
Do you have any established warning systems for hazard events? ▪ If yes, please briefly describe.	Yes San Mateo County Emergency Alert System, Reverse 911 calling.

6.4 Integration with Other Planning Initiatives

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

6.4.1 Existing Integration

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

- ❖ Town of Colma City General Plan, Housing Element—The Town of Colma has integrated environmental conditions, including geotechnical hazards (geologic and seismic safety), noise level



incompatibility, and flooding, into the General Plan Housing Element. Programs in this Element also tie back to hazard mitigation and safety, with relevant actions consisting of inclusive housing, emergency shelters, and utility undergrounding in the Mission Road Corridor.

- ❖ Town of Colma Climate Action Plan—The Town of Colma notes one of the benefits of its Climate Action Plan as increased public health. By building greener buildings, Colma residents will have improved air quality, which will benefit all residents, but especially children and those over 65. Additionally, the Climate Action Plan considers adaption strategies for climate change impacts, including more frequent severe weather events, regional droughts, extreme heat events, and flooding from sea level rise.

6.4.2 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:

- ❖ General Plan, Safety Element—The Town of Colma is currently in the process of updating the 1999 General Plan to account for current trends, statistics, and goals. Only a few sections have been updated, to date. The pending update of the Safety Element provides Colma a significant opportunity to incorporate the results of the hazard mitigation risk analysis and mitigation projects into their Safety Element in compliance with Assembly Bill 2140. Additionally, the update of the Safety Element in conjunction with this Hazard Mitigation Plan will position the Town of Colma for future compliance with SB 379 upon the next LHMP update planning period.
- ❖ Town of Colma Climate Action Plan – The Climate Action Plan provides the Town with an opportunity to directly integrate hazard mitigation with existing goals and objectives. Since the Climate Action Plan already provides a strategic guide for minimizing the impact of human activity on the environment, integration of hazard mitigation is a fitting and strategic next step. Colma anticipates that future assessments to the Climate Action Plan will include hazard mitigation as it relates to air quality, land use, and other factors.
- ❖ Capital Improvement Planning—The Town of Colma maintains a comprehensive CIP, which guides capital improvement projects over a five-year period. Many projects included in the current CIP relate, directly and indirectly, to hazard mitigation. The update of the Hazard Mitigation Plan and selection of necessary mitigation actions enable the Town to ensure consistency between the HMP, the current CIP, and future versions of the CIP. The HMP update may also identify new possible funding sources for capital improvement projects.
- ❖ Public Outreach – Colma recognizes that there are currently public information opportunities available to facilitate public engagement regarding hazard mitigation. The Town will look into developing a more robust program that involves using these current capabilities to expand outreach specific to hazard mitigation.

6.5 Jurisdiction-Specific Natural Hazard Event History

Table 6-9 lists all past occurrences of natural hazards within the jurisdiction.



TABLE 6-9. NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Severe Storm	N/A	3/13/2016	\$0.0 (Trees on private property lost)
Fire (San Bruno)	FM-2856	9/10/2010	\$6,200.00 (Police Mutual Aid)
Severe Storm(s)	DR-1646	6/5/2006	\$0.0
Severe Storm(s)	DR-1628	2/3/2006	\$0.0
Severe Storm(s)	DR-1203	2/9/1998	\$20,000 (Approx.) (30-40 Street trees lost and additional damage)
Severe Storm(s)	DR-1155	1/4/1997	Unknown
Severe Storm(s)	DR-1046	3/12/1995	Unknown
Severe Storm(s)	DR-1044	1/10/1995	Unknown
Freezing	DR-894	2/11/1991	Unknown
Earthquake	DR-845	10/18/1989	Unknown
Coastal Storm	DR-677	2/9/1983	Unknown
Drought	EM-3023	1/20/1977	Unknown
Severe Storm(s)	DR-138	10/24/1962	Unknown
Fire	DR-65	12/29/1956	Unknown

6.6 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: 0
- ❖ Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 0

Other noted vulnerabilities include:

- ❖ El Camino Real – The land around El Camino Real largely consists of Colma sand – loose soil that has the potential to experience extreme liquefaction due to consistency and proximity to the San Andreas Fault. Multiple critical facilities are located in proximity to this area, including Town Hall, the Police Station, and economically critical private facilities.
- ❖ San Bruno Mountain – The eastern border of the Town lays flush against the San Bruno Mountain State Park. The San Bruno Mountain State Park is noted as a moderate wildfire severity state responsibility area for fire suppression and prevention. Though considered a moderate zone, the potential for wildfire on the mountain has the potential to affect eastern Colma with cascading effects on mutual aid and response capabilities.
- ❖ The Colma Community Center is not currently equipped with a facility generator. This Community Center serves as a shelter facility, demonstrating the need for backup power generation in cases of power outages.



- ❖ The Town Emergency Operations Center (EOC) requires updated equipment to adequately coordinate emergency services during a disaster. Additionally, the EOC is located in a known liquefaction zone for the Town along El Camino Real.
- ❖ BART tunnels run through a section of high liquefaction susceptible soils along Mission Road.

6.7 Hazard Risk Ranking

Table 6-10 presents the ranking of the hazards of concern.

TABLE 6-10. HAZARD RISK RANKING

Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
1	Earthquake	54	High
2	Severe Weather	33	High
3	Drought	3	Medium
-	Wildfire	0	No Exposure/Impact
-	Landslide	0	No Exposure/Impact
-	Dam and Reservoir Failure	0	No Exposure/Impact
-	Flood	0	No Exposure/Impact
-	Tsunami	0	No Exposure/Impact

6.8 Hazard Mitigation Action Plan and Evaluation of Recommended Actions

Table 6-11 lists the actions that make up the Town of Colma hazard mitigation action plan. Table 6-10 identifies the priority for each action. Anticipated timelines are typically dependent on funding availability. Table 6-11 summarizes the mitigation actions by hazard of concern and the six mitigation types.

TABLE 6-11. HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Action C-1 —Develop a full Continuity of Operations (COOP) Plan for Town government.						
Existing	All Hazards	1, 2, 3, 5, 6, 9, 10	Colma Planning	Low / Medium	General Fund, FEMA Hazard Mitigation Grants	Short-term
Action C-2 —Coordinate and assist in the development of COOP plans for the Town's cemeteries.						
N/A	All Hazards	1, 2, 3, 5, 6, 9, 10	Colma Planning	Low / Medium	General Fund, FEMA Hazard Mitigation Grants	Short-term



TABLE 6-11. HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Action C-3 — Establish a Public Private Partnership program between the Town and the private owners of identified critical facilities, including the Town’s cemeteries and large retailers.						
Existing	All Hazards	2, 3, 7, 8, 10	Colma Planning	Low	General Fund	Short term and ongoing
Action C-4 — Develop a Debris Management Plan in coordination with jurisdictional partners.						
N/A	All Hazards	1, 2, 3, 4, 5, 6, 8, 10	Colma Public Works	Low / Medium	General Fund, FEMA Hazard Mitigation Grants	Long term
Action C-5 —Construct sewer bypass piping to provide redundancy and to prevent sewer siphon backup and overflow in emergency.						
Existing	Earthquake	1, 6, 7, 11	Colma Public Works	Medium	General Fund, FEMA Hazard Mitigation Grants	Short-Term
Action C-6 —Identify and equip an alternate EOC location in case of primary EOC disruption or destruction.						
New and Existing	All Hazards	1, 2, 3, 4, 6, 7, 8	Colma PD	High	General Fund, FEMA Hazard Mitigation Grants	Medium
Action C-7 —Develop an outreach campaign for encouraging Colma residents and daily commuters to sign up for reverse 911 notifications on their cell phones.						
N/A	All Hazards	2, 3, 7, 9	Colma PD	Low	General Fund	Short and Ongoing
Action C-8 —Construct a bypass or overflow siphon to maintain culvert functionality along El Camino Real.						
Existing	Severe Weather, Earthquake	1, 6, 7, 11	Colma Public Works	Medium / High	General Fund, FEMA Hazard Mitigation Grants	Short-term
Action C-9 —Purchase portable generators and coordinate connection upgrades with Cemetery groundwater pumps to acquire groundwater resources in case of emergency.						
New	Drought, Earthquake	1, 4, 5, 6, 7	Colma Public Works	Medium / High	General Fund, FEMA Hazard Mitigation Grants	Medium
Action C-10 —Assist North San Mateo County Sanitation District on a plan to possibly bring a reclaimed water system to Colma (currently in process).						
Existing	Drought	1, 2, 3, 5, 6, 8, 10	Colma Public Works	Medium	General Fund, Partner Funding, FEMA Hazard Mitigation Grants, EPA Grants	Medium
Action C-11 —Purchase equipment for use during emergency events, including light towers, smart boards, message boards, loudspeakers, and chainsaws.						



TABLE 6-11. HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
New	All Hazards	1, 4, 5, 6, 7	Colma PD	Medium	General Fund, FEMA Hazard Mitigation Grants	Short-term
Action C-12 —Develop a dangerous tree inventory by purchasing a mobile GPS unit for collecting tree coordinates.						
Existing	Severe Weather	1, 2, 5, 6	Colma Public Works	Medium	General Fund, FEMA Hazard Mitigation Grants	Short-term
Action C-13 —Replace existing landscaping in Lawndale with drought-resistant landscaping.						
Existing	Drought	1, 4, 5, 6, 7	Colma Public Works	Medium / High	General Fund, State Funds, FEMA Hazard Mitigation Grants, EPA Grants	Short-term
Action C-14 —Develop a standing Master Services Agreement with the Colma Fire Protection District to formalize existing administrative and technical services relationships.						
N/A	All Hazards	2, 3, 5, 8, 10	Colma Fire District, Town of Colma	Low	General Fund	Short
Action C-15 —Continue to maintain the minimum National Flood Insurance Program participation requirement for communities with no mapped Special Flood Hazard Area.						
New and existing	Flood	2, 3, 5, 6, 8	Colma Public Works	Low	General Fund	Short-term and ongoing
Action C-16 —Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.						
Existing	All	1, 3, 4, 5, 6, 7, 11	Colma Public Works	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action C-17 —Continue to support the countywide actions identified in this plan.						
New and existing	All	All	Town of Colma	Low	General Fund	Short- and long-term
Action C-18 —Actively participate in the plan maintenance strategy identified in this plan.						
New and existing	All	All	Town of Colma	Low	General Fund	Short-term
Action C-19 —Consider participation in incentive-based programs such as Tree City and StormReady.						
New and existing	All	All	Town of Colma	Low	General Fund	Long-term
Action C-20 —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
New and existing	All	1, 2, 3, 4, 5, 6, 7, 8, 10	Colma Planning and Colma Public Works	Low	General Fund	Short-term



TABLE 6-10. 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 Priority ^a
Action C-1	7	Medium	Low / Medium	Yes	Yes	Yes	Medium	Medium
Action C-2	7	Medium	Low / Medium	Yes	Yes	Yes	Medium	Medium
Action C-3	5	Medium	Low	Yes	No	Yes	High	Low
Action C-4	8	Medium	Low / Medium	Yes	Yes	Yes	Medium	Medium
Action C-5	4	High	Medium	Yes	Yes	Yes	Medium	High
Action C-6	7	High	High	Yes	Yes	No	Medium	High
Action C-7	4	High	Low	Yes	No	Yes	High	Low
Action C-8	4	High	Medium / High	Yes	No	No	Medium	Low
Action C-9	5	High	Medium / High	Yes	Yes	No	Medium	High
Action C-10	7	Medium	Medium	Yes	Yes	Yes	Medium	Medium
Action C-11	5	High	Medium	Yes	Yes	Partial	Medium	Medium
Action C-12	4	Medium	Medium	Yes	Yes	Partial	Medium	Medium
Action C-13	5	Medium	Medium / High	Yes	Yes	No	Medium	Medium
Action C-14	5	Medium	Low	Yes	No	Yes	High	Low
Action C-15	5	Medium	Low	Yes	No	Yes	High	Low
Action C-16	7	High	High	Yes	Yes	No	Medium	High
Action C-17	11	Medium	Low	Yes	No	Yes	High	Low
Action C-18	11	Medium	Low	Yes	No	Yes	High	Low
Action C-19	11	Medium	Low	Yes	No	Yes	High	Low



TABLE 6-10. 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 Priority ^a
Action C-20	9	Medium	Low	Yes	No	Yes	High	Low

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

TABLE 6-11. 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
Drought	10, 14, 17, 18, 19, 20	4, 19, 20	3, 7	10	1, 2, 4, 6, 9, 11	14, 16
Earthquake	5, 9, 14, 17, 18, 19, 20	4, 5, 8, 19, 20	3, 7	5	1, 2, 4, 6, 9, 11	5, 8, 14, 16
Flood	15					
Severe Weather	8, 12, 14, 17, 18, 19, 20	4, 8, 12, 19, 20	3, 7, 19	12	1, 2, 4, 6, 9, 11	8, 14, 16
Human-Caused Hazards	14, 17, 18, 19, 20	4, 19, 20	3, 7		1, 2, 4, 6, 9, 11	14, 16

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

6.9 Future Needs to Better Understand Risk/Vulnerability

Though not identified through this planning process as a hazard of concern, additional information and studies regarding the landslide hazard along the San Bruno Mountain should be collected and conducted as it relates to landslide. Local knowledge indicates that landslide is a possible secondary impact for a large magnitude earthquake. The Town has heard of a potential landslide event as a result of the 1906 earthquake that crossed Hillside Boulevard, however, no historical record has been found verifying the occurrence.

Though wildfires on San Bruno Mountain do not threaten the Town in regards to property impacts, Colma has experienced secondary air-quality effects of such an event. Additional information is needed regarding the public health impact of ash and smoke from wildfires on the Town.

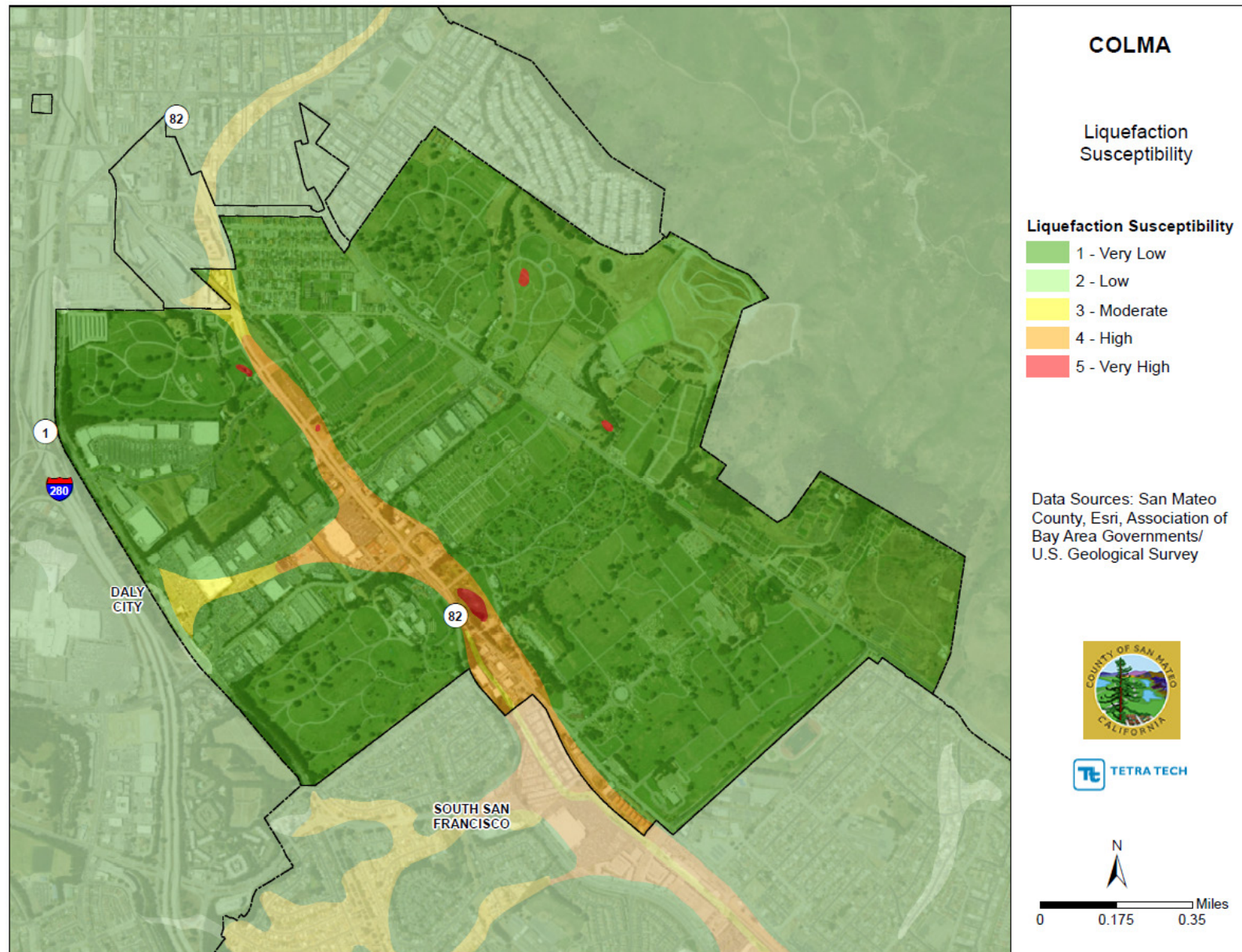
6.10 Additional Comments

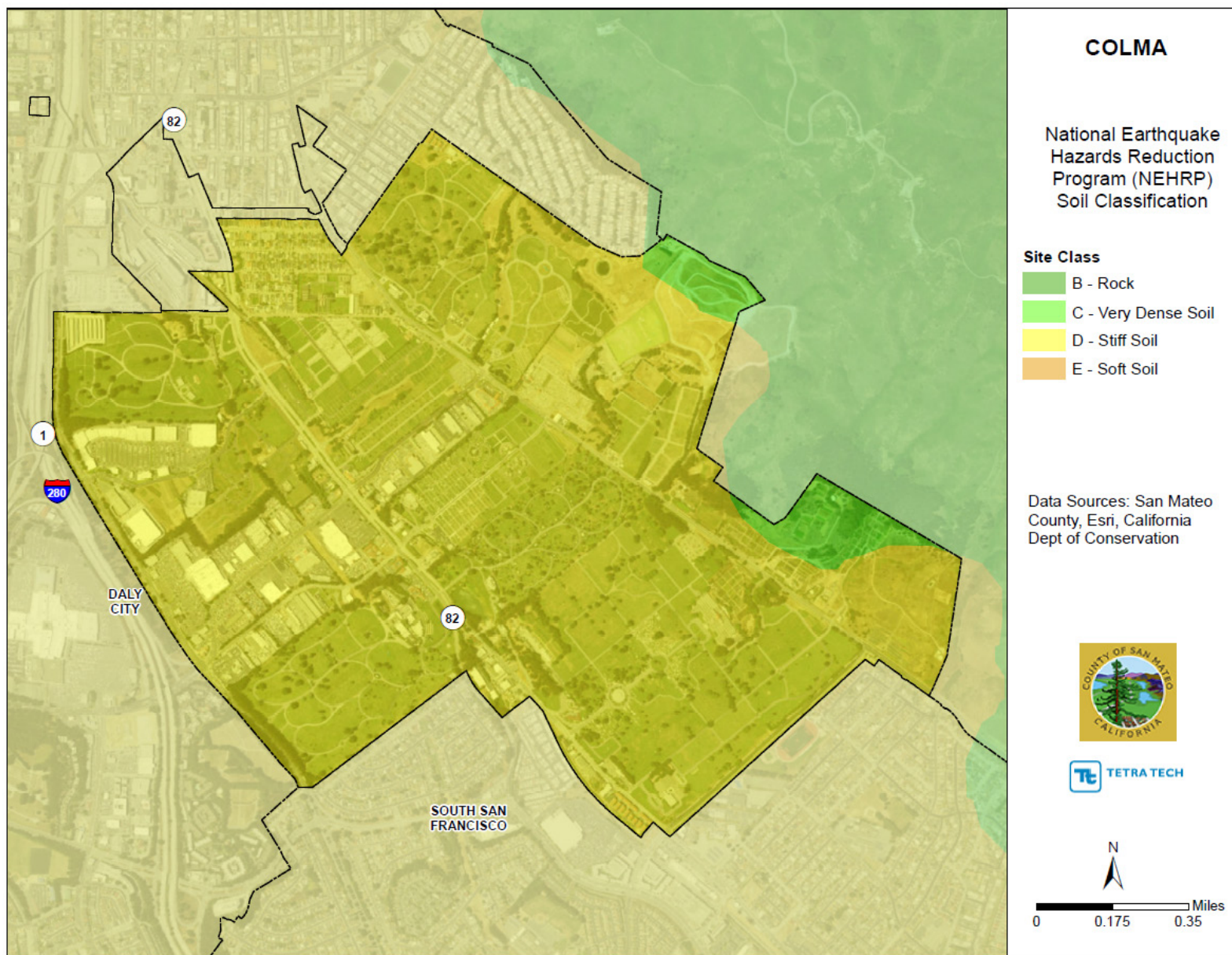
- ❖ The small size of the Town of Colma poses considerable obstacles. Colma participates in several mutual aid agreements, including public works and with the Colma Fire Protection District, however



during a regional event, larger jurisdictions are likely to receive the bulk of mutual aid resources. During such an event, the Town would essentially be left to its own limited resource pool in responding to resident and business needs.

- ❖ The Town relies heavily on private economic revenue for the yearly operating budget. Any disruption to the economic system would essentially cripple the recovery of the Town until economic operations regain full functionality. Based on the size and location of the event, economic functionality could take years to reestablish.
- ❖ The landmass dedicated to graveyards poses a public health risk during potential hazard events where graves may become exposed. In planning for any response and immediate recovery operations, public health capabilities, resource requirements, and training must be incorporated.
- ❖ A major catastrophic events that results in mass fatalities could inundate Colma as the primary depository for decedents for San Francisco. The graveyards would be working at or beyond capacity, requiring additional support and land for processing and interring bodies.
- ❖ Colma's vast open space provides a potential opportunity for providing northern jurisdictions with evacuation support and resource distribution. The Kohl's Department Store parking lot is currently identified as a Point of Distribution area for state resources.







Chapter 2.

Colma Fire Protection District

2.1 Hazard Mitigation Plan Point of Contact

Primary Point of Contact

Geoffrey Balton, Fire Chief

50 Reiner Street

Colma, CA 94014

Telephone: 650-755-5666

e-mail Address: gbalton@colmafd.org**Alternate Point of Contact**

Herb Cheng, Fire Captain

50 Reiner Street

Colma, CA 94014

Telephone: 650-755-5681

e-mail Address: hcheng@colmafd.org

2.2 Jurisdiction Profile

2.2.1 Overview

The Colma Fire Protection District (CFPD) is an independent fire district governed by a three-member board of directors elected at large by the voters of the district. Originally organized by volunteers in 1925, the CFPD became a district in 1937 pursuant to Health and safety Code section 13800-13970. The Fire Board assumes responsibility for the adoption of this plan, the Fire Chief will oversee its implementation.

2.2.2 Service Area and Trends

The district serves a population of approximately 6,000 people. Its service area covers an area of 2.55 square miles and includes Broadmoor/Garden Village, the Town of Colma, and adjacent unincorporated areas.

The Districts enabling legislation permits the following authorized powers: fire protection services, rescue services, emergency medical services, hazardous materials emergency response services, ambulance services, and any other services relating to the protection of lives and property. CFPD's active powers include fire suppression, fire prevention, education and training, rescue services, emergency medical services, hazardous material response services (by joint powers authority) ambulance services (by joint powers authority) and Code Enforcement. CFPD responded to 816 calls in 2015 throughout the service area – a drastic increase from 1983, where calls ranged in the 200s.

2.2.3 Assets

Table 2-1 summarizes the critical assets of the district and their value.



TABLE 2-1. SPECIAL PURPOSE DISTRICT ASSETS

Asset	Value
Property	
Station 85 land (3/4 acre)	Unknown
Critical Infrastructure and Equipment	
E-86	\$477,627
E-85	\$350,000
E-285	\$350,000
T-85	\$569,435
V-85	\$40,000
V-86	\$37,906
Total:	\$1,824,968
Critical Facilities	
Colma Fire Protection District Headquarters – Station 85	
Main Building	\$2,746,665
Tower	\$142,623
Barn	\$268,467
Trailer	\$418,859
Total:	\$3,567,614

2.3 Planning and Regulatory Capabilities

The following existing codes, ordinances, policies or plans are applicable to this hazard mitigation plan:

- ❖ CFPD participates in the San Mateo County Pre-Hospital Emergency Medical Services Group (JPA). As a JPA participant, CFPD serves as the primary storage entity for EMS supplies for north San Mateo County. Resources include, but are not limited to perishable medical supplies (replaced by the JPA when expired), durable medical equipment, and an oxygen cylinder refilling truck.
- ❖ CFPD is held to the standard of the 2013 California Fire Code and the California Health and Safety Code

2.4 Fiscal, Administrative and Technical Capabilities

The jurisdiction participates in the Public Protection Class Rating System and currently has a rating of 4/9. This rating was achieved in June, 1996. An assessment of fiscal capabilities is presented in Table 2-2. An assessment of administrative and technical capabilities is presented in Table 2-3.

TABLE 2-2. FISCAL CAPABILITY

Financial Resources	Accessible or Eligible to Use?
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas or Electric Service	No



Financial Resources	Accessible or Eligible to Use?
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
State-Sponsored Grant Programs	Yes; 2014 CA Fire Safe Clearinghouse Grant, 2015 CA Fire Safe Clearinghouse Grant, SRA CAL Fire Prevention Fee Grant.
Development Impact Fees for Homebuyers or Developers	No
Other	No

TABLE 2-3. ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	No	Informal agreement for Town of Colma and County resources
Engineers or professionals trained in building or infrastructure construction practices	No	Informal agreement for Town of Colma and County resources
Planners or engineers with an understanding of natural hazards	No	Informal agreement for Town of Colma and County resources
Staff with training in benefit/cost analysis	No	Informal agreement for Town of Colma and County resources
Surveyors	No	Informal agreement for Town of Colma and County resources
Personnel skilled or trained in GIS applications	No	Informal agreement for Town of Colma and County resources
Scientist familiar with natural hazards in local area	No	
Emergency manager	No	Informal coordination with Broadmoor Police Department
Grant writers	No	Informal agreement for Town of Colma and County resources
Other	No	

2.5 Education and Outreach Capabilities

An assessment of education and outreach capabilities is presented in Table 2-9.

TABLE 2-6. EDUCATION AND OUTREACH

Criteria	Response
Do you have a Public Information Officer or Communications Office?	No
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website?	No



Criteria	Response
Do you utilize social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
Do you have any other programs already in place that could be used to communicate hazard-related information?	Yes
▪ If yes, please briefly describe.	CERT, CPR, and Fire Safety Training for the public.
Do you have any established warning systems for hazard events?	Yes
▪ If yes, please briefly describe.	SMCAAlert

2.6 Integration with Other Planning Initiatives

The following describe the jurisdiction's process for integrating the hazard mitigation plan into existing plans and programs.

2.6.1 Existing Integration

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

- ❖ **Professional Trainings** – All CFPD fire suppression personnel are certified to the California State Firefighter II level and actively involved in the California Incident Command Certification Program. District staff train to enhance their knowledge in many topics to ensure that they are able to respond to events quickly, safely, and with maximum opportunity for success.
- ❖ **Public Education Program** – One of the core elements of CFPD's increases the preparedness and prevention of fire hazards within the communities it serves. To that end, it has developed a public education program that includes online resources, in person trainings, community events, and more.

2.6.2 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:

- ❖ **Public Education and Outreach**—Expand District Preparedness Webpage to include the results of the hazard mitigation plan (HMP) update. Develop a comprehensive public information program that also coordinates hazard mitigation with the other public education initiatives.
- ❖ **Continued Integration With Jurisdictional Plans**—CFPD, San Mateo County, and the Town of Colma have all developed numerous plans to facilitate long-term growth, implementation of strategic goals/mission, and increased resiliency. CFPD plays an important role in the Town of Colma and the County as it enhances the safety of many residents in unincorporated Broadmoor Village. This HMP update marks one way in which CFPD will focus on increasing the coordination



between District plans, County plans, and the Town of Colma plans to ensure that local governance considers the capabilities and resources of CFPD during a hazard event.

2.7 Jurisdiction-Specific Natural Hazard Event History

Table 2-5 lists all past occurrences of natural hazards within the jurisdiction.

TABLE 2-5. NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Fire	FM-2856	9/10/2010	Provided mutual aid response.
Severe Storm	DR-1646	6/5/2006	Provided mutual aid response.
Severe Storm	DR-1628	2/3/2006	Provided mutual aid response.
Severe Storm	DR-1203	2/9/1998	Provided mutual aid response.
Severe Storm	DR-1155	1/4/1997	Provided mutual aid response.
Severe Storm	DR-1046	3/12/1995	Provided mutual aid response.
Severe Storm	DR-1044	1/10/1995	Provided mutual aid response.
Earthquake	DR-845	10/18/1989	Provided mutual aid response.

2.8 Jurisdiction-Specific Vulnerabilities

Noted vulnerabilities the jurisdiction include:

- ❖ Station 85, located at 50 Reiner Street in Colma, CA serves as the primary fire and medical response headquarters for the Town of Colma, and Broadmoor Village and Garden Village in unincorporated San Mateo County. The main building for Station 85 was built in the 1950s is extremely vulnerable to the earthquake hazard. This facility houses all of the primary response vehicles for the district and is only accessible through a single access point. The district has experienced issues in the past due to poor design, causing delays in response time for sticking doors and inaccessibility. Additionally, storage capacity is segmented on the property with resources housed in four separate buildings – a trailer, a historic barn, an old training fire tower, and the main building. Without appropriate retrofits, upgrades, and new facilities, Station 85 is likely to partially or fully collapse, rendering CFPD personnel unable to assist their service areas in the event of a major earthquake – leaving approximately 6,000 people without appropriate fire and medical attention during a disaster.

2.9 Hazard Risk Ranking

Table 2-6 presents the ranking of the hazards of concern.

TABLE 2-6. HAZARD RISK RANKING

Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
1	Earthquake	54	High
2	Severe Weather	45	Medium
3	Drought	0	No Impact



Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
4	Dam Failure	0	No Impact
5	Flood	0	No Impact
6	Landslide	0	No Impact
7	Tsunami	0	No Impact
8	Wildfire	0	No Impact

2.10 Hazard Mitigation Action Plan and Evaluation of Recommended Actions

Table 2-7 lists the actions that make up the CFPD hazard mitigation action plan. Table 2-8 identifies the priority for each action. Table 2-9 summarizes the mitigation actions by hazard of concern and the six mitigation types.

TABLE 2-7. HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Action CFPD-1 – Develop a standing Master Services MOU with the Town of Colma to formalize existing administrative and technical services relationships.						
N/A	All Hazards	2, 3, 5, 8, 10	CFPD	Low	District Budget	Short
Action CFPD-2 —Develop a Continuity of Operations Plan for the District outlining redundancy priorities and a framework for continuation of district services in case of facility loss or other major service disruption.						
N/A	All Hazards	1, 2, 3, 5, 6, 9, 10	CFPD	Low	District Budget, Firefighting Grants	Short
Action CFPD-3 — Conduct an engineering study on requirements for building upgrade an retrofits to provide a recommendation and analysis on the benefit/cost of upgrading/retrofitting current facilities or replacing current facilities.						
Existing	Earthquake	1, 2, 3, 4, 5, 6	CFPD	Medium	District Budget, Firefighting Grants	Short
Action CFPD-4 — If so recommended by a completed engineering study, retrofit and upgrade current facilities to current seismic standards.						
Existing	Earthquake	3, 4, 5, 7, 11	CFPD	High	District Budget, Firefighting Grants, FEMA Hazard Mitigation Grants	Short
Action CFPD-5 — If so recommended by a completed engineering study, replace current facility complex with a seismically sound, single facility for consolidating, housing, distributing, and dispatching district and state resources for the district service area and northern San Mateo County.						
New	Earthquake	3, 4, 5, 7, 11	CFPD	High	District Budget, Firefighting Grants, FEMA Hazard Mitigation Grants	Medium
Action CFPD-6 —Develop a mitigation component to the existing district public outreach program including a mitigation supplement for training and an upgraded website.						
N/A	All Hazards	2, 3, 4, 5, 6, 9, 10	CFPD	Low	District Budget	Long
Action CFPD-7 —Replace the current facility permanent generator to ensure continued operations in the event of a power outage.						



Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
New	Severe Weather	1, 4, 5, 6, 7	CFPD	Medium	District Budget, Firefighting Grants, FEMA Hazard Mitigation Grants	Short-Term

Action CFPD-8—Continue to support the countywide actions identified in this plan.

New and existing	All	All	CFPD	Low	General Fund	Short- and long-term
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Action CFPD-9—Actively participate in the plan maintenance strategy identified in this plan.

New and existing	All	All	CFPD	Low	General Fund	Short-term
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Action CFPD-10—Integrate the hazard mitigation plan into other plans, programs, or resources, that dictate land use or redevelopment.

New and existing	All	1, 2, 3, 4, 5, 6, 7, 8, 10	CFPD	Low	General Fund	Short-term
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TABLE 2-8. 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 Priority ^a
Action CFPD-1	5	Medium	Low	Yes	No	Yes	High	Low
Action CFPD-2	7	High	Low	Yes	Yes	Yes	High	High
Action CFPD-3	6	Medium	Medium	Yes	Yes	Yes	Medium	Medium
Action CFPD-4	5	Medium	High	No	Yes	No	Low	Medium
Action CFPD-5	5	Medium	High	No	Yes	No	Low	Medium
Action CFPD-6	7	High	Low	Yes	No	Yes	High	Low
Action CFPD-7	5	High	Medium	Yes	Yes	No	Medium	Medium
Action CFPD-8	11	Medium	Low	Yes	No	Yes	High	Low
Action CFPD-9	11	Medium	Low	Yes	No	Yes	High	Low
Action CFPD-10	9	Medium	Low	Yes	No	Yes	High	Low

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



TABLE 2-9. 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
Earthquake	1, 8, 9, 10	1, 3, 4, 5	6	-	1, 2	1, 4, 5
Severe Weather	1, 8, 9, 10	1	6	-	1, 2, 7	1
Human-Caused	1, 8, 9, 10	1	6	-	1, 2	1

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