



# San Mateo County Multijurisdictional Local Hazard Mitigation Plan Update

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May 10, 2021



San Mateo County

HAZARD MITIGATION PLAN

July 2016



VOLUME 1



# What is Hazard Mitigation Planning?

The Hazard Mitigation Plan **assesses hazard vulnerabilities** and **identifies mitigation actions** that jurisdictions will pursue in order to **reduce the level of injury, property damage, and community disruption** that might otherwise result from such events.

Adoption of the Plan helps the County and its Annex Partners **remain eligible for various types of pre and post disaster community assistance** from the Federal Emergency Management Agency (FEMA) and the State government.

# What is Mitigation?

*“Sustained action taken to reduce or eliminate long-term risk to life and property”*

Five Phases of  
Emergency Management



# Who is Participating in the SMC MJHMP as Annex Partners?

Eligible entities are defined as a city, town, county, school district, special district. (Section 201.3, 44CFR).

## Cities/Townships/County

Atherton	Millbrae
Belmont	Pacifica
Brisbane	Portola Valley
Burlingame	Redwood City
Colma	San Bruno
Daly City	San Carlos
East Palo Alto	San Mateo (City)
Foster City	San Mateo County
Half Moon Bay	South San Francisco
Hillsborough	Woodside

## Special Districts

Coastside County Water	Montara Water & Sanitary
Colma Fire	SMC Community College
Granada Community Services	SMC Flood & Sea Level Rise Resiliency
Highlands Recreation	SMC Harbor District
Jefferson Union High School	SMC Office of Education
Menlo Park Fire Protection	San Mateo Resource Conservation
Midpeninsula Regional Open Space	Westborough Water
Mid-Peninsula Water	Woodside Fire Protection
North Coast County Water	

# What Risks are being Assessed and Mitigated in the 2021 Plan Update?

Type of Hazard	Description of Hazard
<b>Natural</b>	Climate Change, Dam Failure, Drought, Earthquake, Flood, Landslide/Mass Movements, Severe Weather/Extreme Weather, Wildfire, Tsunami, Health/Pandemic
<b>Human Caused</b>	Terrorism, Cyber Threats, Communication Failure (Cell Networks, Internet, Public Safety Radio Networks)
<b>Technological Hazards</b>	Hazardous Materials Release, Pipeline & Tank Failure, Aircraft Incidents



# Examples of Mitigation Strategies

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- Seismic retrofit of buildings and bridges
- Redundancy of water systems and fuel systems
- Tree planting to reduce heat in urban cores
- Vegetation management to reduce fuel load
- Community centers with off-grid power for PSPS
- Policies— building codes and zoning
- Incentives – grants or financial assistance for risk reduction at business and household level



# Benefits of Hazard Mitigation Plans

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- Establish eligibility for grant funds (\$\$\$ for projects)
- Improve understanding of risks and vulnerabilities
- Reduce negative impacts of natural hazards – actions save lives, reduce displacement, and speed recovery
- Encourage sustainable actions – builds strong, resilient, and self-sufficient communities
- Foster collaboration between local jurisdictions and residents



# Other Benefits of Hazard Mitigation Planning

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- Hazard Mitigation Plans contribute to a community's Community Rating System (CRS) score
- What is Community Rating System?
  - ***A FEMA/National Flood Insurance voluntary incentive program that encourages floodplain management activities***
  - ***Reduces potential flood damages and can decrease flood insurance rates \$\$***
- The Following Communities within SMC participate in the CRS program
  - ***Burlingame***
  - ***East Palo Alto***
  - ***Pacifica***
  - ***San Carlos***
  - ***San Mateo County***





## Schedule May – July 2021

<b>Dates</b>	<b>Activity</b>
May 21	Phase 2 Assignment Due
On or before June 1	Phase 3 Assignment Available <ul style="list-style-type: none"><li>• Will include Hazard/Risk Ranking information generated by Tetra Tech</li><li>• Mitigation Actions, Prioritization and Plan Maintenance Actions will be developed in this phase, including identifying possible sources of funding</li></ul>
July 23	Phase 3 Assignment Due
August 5 - 23	DRAFT MJLHMP Posted for Public Comment with Public Workshop #2 scheduled for August 12 <sup>th</sup> at 4 pm
By August 31	Draft MJLHMP submitted to CalOES and FEMA for concurrent review

# Risk Assessment Steps

1. Identify hazards of concern
2. Identify databases and develop maps
3. Model hazards using Hazus (FEMA standardized GIS – based software)
4. Develop risk assessment (identify & profile each hazard, determine the exposure to each hazard, and assess the vulnerability of exposed facilities)

# Sample Risk Rating and Ranking Table

## 18.3 RISK RATING AND RANKING

The risk rating for each hazard was determined by multiplying the probability factor by the sum of the weighted impact factors for people, property and operations, as summarized in Table 18-5. Based on these ratings, a priority of high, medium or low was assigned to each hazard, as shown on Figure 18-1.

Table 18-5. Hazard Risk Rating

Hazard Event	Probability Factor	Sum of Weighted Impact Factors	Total (Probability x Impact)
Dam Failure	2	$(6+4+2) = 12$	$2 \times 12 = 24$
Drought	3	$(0+0+2) = 2$	$3 \times 2 = 6$
Earthquake	3	$(9+6+3) = 18$	$3 \times 18 = 54$
Flood	3	$(3+2+1) = 6$	$3 \times 6 = 18$
Landslide	3	$(9+4+1) = 14$	$3 \times 14 = 42$
Sea-level rise	3	$(3+4+1) = 8$	$3 \times 8 = 24$
Severe Weather	3	$(9+2+2) = 13$	$3 \times 13 = 39$
Tsunami/Seiche	1	$(3+4+2) = 9$	$1 \times 9 = 9$
Wildfire	3	$(6+4+1) = 11$	$3 \times 11 = 33$

# Develop Mitigation Action Plan

1. Develop list of mitigations
2. Do a benefit/cost review
3. Develop implementation priorities
4. Develop funding/grant pursuit priorities
5. Develop social equity priorities

# Develop Implementation Priorities

**High Priority** – meets multiple objectives, benefits exceed costs, has a secured funding source, can be implemented in 1 – 5 years mitigations

**Medium Priority** – meets multiple objectives, benefits exceed costs, eligible for funding, can be implemented in 1 – 5 years once funding is secured

**Low Priority** – mitigates risks, benefits do not exceed costs or are difficult to quantify, no secured funding source, not eligible for grants, can be implemented in 1 – 10 years

# Develop Funding Priorities

## **High Priority –**

meets identified grant requirements, has high benefits, is listed as a high or medium implementation priority;  
local funds are not available or could be used instead for actions that are not eligible for grant funding

## **Medium Priority**

meets identified grant requirements, has medium or low benefits, is listed as medium or low priority;  
local funding options are not available

## **Low Priority**

Local funding options are not available and an action does not meet any grant eligibility requirements

**Sample of  
Mitigation  
Prioritization  
(includes  
12 of 21  
Mitigation  
Actions)**

Table ES-1. Mitigation Action Plan

Action Number and Description	Priority for Implementation	Priority for Pursuing Grants
O-1: Safer Housing for Oakland: Soft Story Apartment Retrofit Program	Medium	High
O-2: Continue the Earthquake Safe Homes Program	Medium	High
O-3: Green Stormwater Infrastructure Program	Medium	High
O-4: Identify stormwater infrastructure projects that would be good projects for which to pursue funding under FEMA Hazard Mitigation Assistance grant programs	Medium	High
O-5: Defensible Space Vegetation Program to manage wildfire hazards; preparation of a Vegetation Management Plan	High	Medium
O-6: Continuity of Operations Emergency Planning	High	Medium
O-7: Implement the City's Energy Assurance Plan	Medium	N/A
O-8: Assessment and retrofits of critical facilities & infrastructure	Medium	High
O-9: Continue to maintain the City's good standing and compliance under the National Flood Insurance Program	High	N/A
O-10: Create a comprehensive master plan for three city facilities to reliably serve as resilience hubs	Medium	High
O-11: Develop an "integrated preparedness plan" that will consider the range of preparedness activities within the Integrated Preparedness Cycle	High	Medium
O-12: To support implementation of and future updates to the City's local hazard mitigation plan, Safety Element, and Environmental Just Element, use the best available local data to identify racial disparities in the City of Oakland	High	High

# Questions?

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Project Website:

<https://cmo.smcgov.org/multijurisdictional-local-hazard-mitigation-plan>

Includes:

- How to Participate
- Events
- Resources
- Planning Partners

