



City of East Palo Alto

Annex to 2010 Association of Bay  
Area Governments (ABAG)  
Local Hazard Mitigation Plan

*Taming Natural Disasters*

City of East Palo Alto

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# City of East Palo Alto

## **Introduction**

### ***Document Background***

This document serves as an annex to the 2010 Association of Bay Area Governments (ABAG) Multi-Jurisdictional Local Hazard Mitigation Plan (MJ-LHMP), which was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000. The Disaster Mitigation Act of 2000 was national legislation which imposed requirements that emphasized the need for State, local, and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts. ABAG's Multi-Jurisdictional Local Hazard Mitigation Plan is intended to provide a regional guide for maintaining and enhancing the resistance of the region to natural disasters, in regards to infrastructure, health, housing, economy, government services, education, environment, and land use systems. This purpose of this annex is to provide specific information about East Palo Alto's needs and priorities to supplement and enhance the effectiveness of ABAG's regional plan.

By participating in the MJ-LHMP, the City of East Palo Alto becomes eligible to receive the following benefits:

- Becoming a more disaster-resistant and resilient community and region;
- Eligibility for hazard mitigation assistance programs, including Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance and Severe Repetitive Loss grant programs;
- Eligibility for points under the National Flood Insurance Program's Community Rating System (CRS); and
- Eligibility for waiver of the 6.25% local match for Public Assistance money after a disaster.

### ***Jurisdiction Background***

The City of East Palo Alto is a community located in Silicon Valley at the southernmost edge of San Mateo County. The City is bounded by the City of Menlo Park to the north and to the west, the City of Palo Alto to the south, and San Francisco Bay to the east (a map of the City's jurisdictional boundary is provided in Exhibit A). The City of East Palo Alto is approximately 2.5 square miles in size and has a total population of 28,155, according to the 2010 US Census.

ABAG recognizes 28 critical facilities in East Palo Alto's boundaries, based on information gathered and mapped in 2009. According to ABAG, critical facilities are facilities that are critical to the functioning of our region after disasters and during the recovery process, including:

- Health-related facilities (based on a list of licensed facilities from the California Office of Statewide Health Planning and Development);
- Schools (location information on public and private K-12 schools, community colleges, colleges, and universities based on a combination of addresses from Thomas Bros. and the individual facilities);
- Critical facilities (owned by cities, counties, and special districts other than K-12 school districts); and
- Highway and road structures, including freeway interchanges, small bridges over creeks, and toll bridges (location information based on data from Caltrans)

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East Palo Alto's critical facilities include:

- 2 Healthcare facilities, including the Ravenswood Family Health Center and Clinic;
- 10 school facilities, including Cesar Chavez Elementary, Costano Elementary, East Palo Alto Charter School, Edison-Brentwood Elementary, Green Oaks Academy, Ronald McNair Academy, Ravenswood School District Offices, South Community, Aspire Phoenix Academy and Eastside College Preparatory School);
- 13 locally owned facilities including O'Connor Pump Station, San Mateo County Government Center, Senior Center, Bell Street Park Recreation Center, City Hall Annex, Sanitary District Offices, Corporation Yard; and
- 2 locally owned bridges and interchanges, including the Newell Bridge and the University Avenue Bridge.

The City of East Palo Alto has experienced its share of disasters in the past, including:

- The Loma Prieta Earthquake of 1989;
- Severe flooding in 1972, 1989 and 1998; and
- Drought conditions in 1976 and 2009.

More information on State and Federally declared disasters in the [City of East Palo Alto](http://quake.abag.ca.gov/mitigation/ThePlan-D-Version-December09.pdf) can be found at <http://quake.abag.ca.gov/mitigation/ThePlan-D-Version-December09.pdf>

## **The Regional Planning Process**

ABAG created its first regional Hazard Mitigation Plan in 2005. The City of East Palo Alto did not participate in the planning process at that time. The City of East Palo Alto did, however, participate in the process for the updated 2010 Hazard Mitigation Plan.

For more information on meetings held regarding this matter and for rosters of attendees, please see Appendix A and H in the 2010 ABAG Multi-Jurisdictional Local Hazard Mitigation Plan (MJ-LHMP).

## **The Local Planning Process**

### ***Planning Team***

Representatives from multiple City divisions met on a regular basis to identify and prioritize appropriate mitigation strategies. Personnel involved in these meetings included management and staff from the Community Development Department and the Police Department. Staff from the Menlo Park Fire Protection District also participated in this process. The group was made up of planners, building officials, civil engineers, redevelopment staff, police officials and fire officials. Personnel involved in these meetings included:

- Frank Rainone, Chief Building Official
- Carlos Martinez, Deputy Director of Community Development
- Kamal Fallaha, City Engineer

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- Carl Estelle, Police Captain
- Brent Butler, Planning Manager
- Wayland Li, Associate Planner
- Geoff Aus, Fire Marshal/Division Chief, Menlo Park Fire Protection District

At the first meeting, general priorities and appropriate departments were identified. Subsequent meetings identified mitigation strategies and prioritized said strategies. This process was facilitated and managed by Chief Building Official, Frank Rainone.

## ***Utilization of Local Documents***

As part of the planning process, staff utilized the following local documents to guide the development of this annex:

- 1999 General Plan;
- 2010 Revised General Plan Housing Element;
- Fiscal Year 2011/2012 Operating Budget;
- Fiscal Year 2011/2012 Capital Budget /Fiscal Year 2011/2012 - 2014/2015 Capital Improvement Program;
- 2011 Emergency Operation Plan; and
- 2011 City Council Strategic Plan

## ***Public Meetings/Outreach***

ABAG held public meetings as part of its effort to create a regional plan. For more information about ABAG's outreach, please see Appendix A and H in the ABAG MJ-LHMP.

At the local level, the City of East Palo Alto solicited public participation by advertising information about the plan on the City website ([www.cityofepa.org](http://www.cityofepa.org)), the City's Weekly Memorandum and by holding community meetings.

The first community meeting was held on November 9, 2011 at the Palo Mobile Estates, 1805 East Bayshore Road, East Palo Alto, CA. At that meeting, background information was presented and draft mitigation strategies were discussed.

Following that community meeting, feedback was incorporated into a draft annex. After the annex was drafted, the public was provided an opportunity to provide comment at an Emergency Preparedness Meeting on ***date*** and a Planning Commission Meeting on November 14, 2011. The City Council will be provided an opportunity to review and adopt the plan at a public hearing as well.

## **Hazards Assessment**

The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan, to which this is an annex, identifies nine hazards that impact the Bay Area. Five of the hazards are related to earthquakes:

- Faulting;

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- Shaking;
- Earthquake-induced landslides;
- Liquefaction; and
- Tsunamis.

Four of the hazards are related to weather

- Flooding;
- Landslides;
- Wildfires; and
- Drought.

Maps of these hazards and risks are shown on the ABAG website at:  
<http://quake.abag.ca.gov/mitigation/>.

The City of East Palo Alto does not face any natural disasters not listed in the ABAG multi-jurisdictional plan. The East Palo Alto planning team has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes (particularly shaking) and flooding are the hazards that pose the greatest risk for potential loss of life and property in East Palo Alto. This is consistent with the East Palo Alto General Plan Safety Element, which contains a Natural Hazards section which focuses specifically on geologic and flood hazards. Wildfires and drought also pose some risk to the community. There is no significant risk from landslides.

This determination was made based on a review of data and hazard maps on the ABAG website, <http://quake.abag.ca.gov/mitigation/>. While the City of East Palo Alto's General Plan Safety Element provides some general hazard mapping, the ABAG website provides more detailed mapping of these potential hazards.

## **Past Occurrences of Disasters**

The City of East Palo Alto has experienced its share of disasters in the past, including:

- The Loma Prieta Earthquake of 1989;
- Severe flooding in 1972, 1989 and 1998; and
- Drought conditions in 1976 and 2009.

The flood events, in particular, caused major damage to the City. The 1998 flood event damaged millions of dollars of property, forced the evacuation of hundreds of people and forced the closure of major thoroughfares such as the Bayshore Freeway, University Avenue, Willow Road, Clarke Avenue and Woodland Avenue. In 1972, tidal flood waters completely submerged streets in the University Village neighborhood. The 1989 flood event put Bell Street Park underwater.

In 1989, the Loma Prieta Earthquake generated areas of moderate, strong and very strong ground shaking (based on the modified Mercalli intensity scale shown on the ABAG website,

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<http://www.abag.ca.gov/cgi-bin/pickmapx.pl>) in East Palo Alto, which caused significant property damage to multiple properties in the City.

This history supports the assessment that the hazards that pose the greatest risk for potential loss of life and property in East Palo Alto are those related to earthquakes and floods.

## **Risk Assessment**

### ***Urban Land Exposure***

The City of East Palo Alto examined its hazard exposure for urban land based on information in ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. The "2005 Existing Land Use with 2009 Mapping" file was used for this evaluation. Of the 1,374 acres in the City, the following exposures exist:

<b>Exposure (acres of urban land)</b>	
<b>Hazard</b>	<b>2010</b>
<i>Total Acres of Urban Land</i>	<i>1,374</i>
Earthquake Faulting (within CGS zone)	0
Earthquake Shaking (within highest two shaking categories)	220
Earthquake-Induced Landslides (within CGS study zone)	0
Liquefaction (within moderate, high, or very high liquefaction susceptibility)	1,362
Flooding (within 100 year floodplain)	261
Flooding (within 500 year floodplain)	73
Landslides (within areas of existing landslides)	0
Wildfire (subject to high, very high, or extreme wildfire threat)	0
Wildland-Urban Interface Fire Threat	521
Dam Inundation (within inundation zone)	23
Sea Level Rise <sup>1</sup>	N/A
Tsunamis <sup>2</sup> (within inundation area)	N/A
Drought	1,374

### ***Infrastructure Exposure***

The City of East Palo Alto also examined the hazard exposure of infrastructure within the jurisdiction based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 53 miles of roadway, 40 miles of pipeline and 2 miles of rail in the City of East Palo Alto, the following are exposed to the various hazards analyzed.

<sup>1</sup> The sea level rise map is not a hazard map and is therefore not adequate for assessing urban land exposure to sea level rise. Exposure to this hazard will be assessed when adequate data has been collected and analyzed.

<sup>2</sup> Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Areas of exposed land are not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The map does not contain adequate data to assess urban land exposure. Exposure to this hazard will be assessed when adequate data has been collected and analyzed. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.

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<b>Exposure (miles of infrastructure)</b>			
<b>Hazard</b>	<b>Roadway</b>	<b>Pipelines</b>	<b>Rail</b>
	<b>2010</b>	<b>2010</b>	<b>2010</b>
<i>Total Miles of Infrastructure</i>	53	40	2
Earthquake Shaking (within highest two shaking categories)	6	1	5
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility)	53	40	1
Liquefaction Hazard (within CGS study zone)	53	39	2
Earthquake-Induced Landslides (within CGS study zone)	0	0	0
Earthquake Faulting (within CGS zone)	0	0	0
Flooding (within 100 year floodplain)	8	7	1
Flooding (within 500 year floodplain)	4	4	0
Landslides (within areas of existing landslides)	0	0	0
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	0
Wildland-Urban Interface Fire Threat	19	17	1
Dam Inundation (within inundation zone)	1	1	0
Sea Level Rise <sup>3</sup>	not applicable		
Tsunamis <sup>4</sup>	not applicable		
Drought <sup>5</sup>	not applicable		

<sup>3</sup> The sea level rise map is not a hazard map and is therefore not adequate for assessing infrastructure exposure to sea level rise. Exposure to this hazard will be assessed when adequate data has been collected and analyzed.

<sup>4</sup> Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Miles of exposed infrastructure is not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The map does not contain adequate data to assess infrastructure exposure. Exposure to this hazard will be assessed when adequate data has been collected and analyzed. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.

<sup>5</sup> Drought is not a hazard for roadways.

### ***Exposure of City-Owned Buildings, Plus Critical Healthcare Facilities and Schools***

Finally, the City examined the hazard exposure of critical health care facilities and schools located within the City, and City-owned buildings based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit2010.html>. ABAG provided a detailed assessment of the hazard exposure of each of its facilities. The following number of facilities is exposed to the various hazards analyzed.

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<b>Exposure (number of facility types)</b>				
<b>Hazard</b>	<b>Health Care Facilities</b>	<b>Schools</b>	<b>Locally owned critical facilities</b>	<b>Locally owned bridges and interchanges</b>
	<b>Plan Year 2010</b>	<b>Plan Year 2010</b>	<b>Plan Year 2010</b>	<b>Plan Year 2010</b>
<i>Total Number of Facilities</i>	2	10	13	3
Earthquake Shaking (within highest two shaking categories)	2	10	13	3
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility)	2	10	12	3
Liquefaction Hazard (within CGS study zone)	2	10	12	3
Earthquake-Induced Landslides (within CGS study zone)	0	0	0	0
Earthquake Faulting (within CGS zone)	0	0	0	0
Flooding (within 100 year floodplain)	0	4	3	0
Flooding (within 500 year floodplain)	0	2	0	0
Landslides (within areas of existing landslides)	0	0	0	0
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	0	0
Wildland-Urban Interface Fire Threat	0	4	0	0
Dam Inundation	0	0	0	0
Sea Level Rise <sup>1</sup>	N/A	N/A	N/A	N/A
Tsunamis (within inundation area) <sup>2</sup>	N/A	N/A	N/A	N/A

<sup>1</sup> The sea level rise map is not a hazard map and is therefore not adequate for assessing facility exposure to sea level rise. Exposure to this hazard will be assessed when adequate data has been collected and analyzed.

<sup>2</sup> Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Facility exposure is not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The map does not contain adequate data to assess facility exposure. Exposure to this hazard will be assessed when adequate data has been

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Drought	N/A	N/A	N/A	N/A
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collected and analyzed. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.

## ***Repetitive Loss Properties***

A Repetitive Loss property is any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. There is no repetitive loss properties in the City of East Palo Alto based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

## ***Other risks***

The City of East Palo Alto generally faces the same risks and vulnerabilities as the rest of the nine counties in the Bay Area. East Palo Alto may, however, be particularly vulnerable to earthquake hazards and flooding hazards because of unique conditions in the City.

According to ABAG data, 26% of the City (405 acres/1,531 acres) is located in the 100-year flood plain, which means that there is tremendous vulnerability to flooding. The City of East Palo Alto, being located adjacent to San Francisquito Creek and San Francisco Bay, is vulnerable to the overflow of San Francisquito Creek and levee failure along the baylands.

Much of the City's multi-family housing is provided in buildings with soft-story construction. Soft-story construction is particularly vulnerable to failure in the event of an earthquake. The City plans to continue to work with ABAG to improve the risk assessment information being compiled by ABAG, including developing ways to assess how many soft-story buildings are located in the City. The City also plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted.

Although not associated with a specific hazard, water supply is also a major area of vulnerability for the City of East Palo Alto. The City is currently entirely reliant on the Hetch Hetchy Aqueduct for its supply of potable water. There is no alternative source of water if the City's connection to the Hetch Hetchy Aqueduct is severed during a disaster. Consequently, the City is seeking to supplement its water supply with alternative sources of water.

## **National Flood Insurance Program**

### ***National Flood Insurance Program***

The goal of the National Flood Insurance Program (NFIP) is to reduce future flood damage through floodplain management, and to provide people with federally backed flood insurance. Community participation in the NFIP is voluntary, but the City of East Palo Alto has participated in the National Flood Insurance Program for many years. Based on its participation in the program, all East Palo Alto residents are eligible to purchase federal flood insurance. The City continues to maintain full compliance with the NFIP and continues to take all actions required to remain in compliance. In order to remain compliant with the NFIP, the City of East Palo Alto will:

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- Continue to make appropriate land use adjustments to constrict the development of land which is exposed to flood damage and minimize damage caused by flood losses;
- Guide the development of proposed future construction, where practicable, away from locations which are threatened by flood hazards; and
- Assure that any Federal assistance provided under the program will be related closely to all flood-related programs and activities of the Federal Government

## ***Community Rating System***

The CRS is a voluntary part of the National Flood Insurance Program that seeks to coordinate all flood-related activities, reduce flood losses, facilitate accurate insurance rating, and promote public awareness of flood insurance by creating incentives for a community to go beyond minimum floodplain management requirements. The incentives are in the form of insurance premium discounts. CRS ratings are on a 10-point scale (from 10 to 1, with 1 being the best rating), with residents of the community who live within FEMA's Special Flood Hazard Areas (SFHA) receiving a 5% reduction in flood insurance rates for every Class improvement in the community's CRS rating. The City of East Palo Alto joined the Community Rating System in 2010 and has a current class rating of 8. Class 8 status means that properties within FEMA's Special Flood Hazard Areas in East Palo Alto receive a 10% reduction in flood insurance rates. Properties outside the SFHA within East Palo Alto receive a 5% discount in flood insurance rates.

## **Mitigation Goals and Objectives**

The goal of the ABAG MJ-LHMP is to maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters.

The City has additionally established the following specific objectives:

- Reduce the number of public and private buildings within the City that are vulnerable to the effects of earthquakes; and
- Reduce the number of public and private buildings within the City that are vulnerable to the effects of flooding.

The City has established these objectives because the City is particularly vulnerable to these hazards.

## **Mitigation Activities and Priorities**

### ***Future Mitigation Actions and Priorities***

As part of the MJ-LHMP, ABAG formulated a list of mitigation strategies that local municipalities could implement in order to reduce vulnerability to natural disasters. As a participant in the 2010 ABAG multi-jurisdictional planning process, East Palo Alto staff helped

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in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan.

ABAG has asked participating local municipalities to review and prioritize the proposed mitigation strategies in their annexes. The prioritization process should be based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

The City planning team has created a list of draft mitigation strategy priorities. The draft priorities have been made available for public review and will be provided to the City Council for adoption.

## ***Five-Year Mitigation Strategies***

This document identifies specific mitigation strategies that the City will focus on over the next 5 years. This list of five-year priorities was largely derived from the City's Strategic Plan. The City's Strategic Plan identified "Enhance Public Safety and Emergency Preparedness" as a priority and identified measures to implement this priority. The City's Five-Year Mitigation Strategies are below:

- **Develop unused or new pedestrian rights-of-way as walkways to serve as additional evacuation routes (INFR-a-10)**

This mitigation strategy will be implemented through the City's Safe Routes to School program, in conjunction with other transportation improvement projects. This is an ongoing program that is managed by the City Engineer and is listed as a current project in the City's adopted CIP. Approximately 1.1 million dollars of pedestrian improvement projects are currently programmed into the City's Capital Improvement Program (CIP) through fiscal year 2012/2013.

- **Ensure a reliable source of water (INFR-c-1)**

This mitigation strategy will be accomplished through the rehabilitation of the Gloria Well, establishing emergency interties with the City of Palo Alto and the Palo Alto Mutual Water Company and the construction of an emergency water storage tank. These projects are being managed by the City Engineer and are listed as current projects in the City's adopted CIP, meaning they are targeted for completion over the next five years. The current estimated cost of these projects totals 8.2 million dollars. Significant additional funding will need to be identified in order to construct all of these water infrastructure projects.

- **Assist, support, and /or encourage the US Army Corp of Engineers, various Flood Control and Water Conservation Districts, and other responsible agencies to locate and maintain funding for the development of flood control projects that have high cost-benefit ratios (INFR-d-4)**

This mitigation strategy will be implemented by working with the San Francisquito Creek Joint Powers Authority (SFCJPA) to design and construct flood control improvements along San Francisquito Creek, specifically the US 101 to San Francisco Bay project. The

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SFCJPA is the lead agency in the management of this project. This project is currently in the design and planning stage and it is unknown what the total cost of this project will be, or how much East Palo Alto will be responsible for paying. Due to funding uncertainty, it is unknown what the timeline for construction of this project will be.

- **Continue to repair and make structural improvements to storm drains, pipelines, and/or channels to enable them to perform to their design capacity in handling water flows as part of regular maintenance activities (INFR-d-6)**

This mitigation strategy will be implemented through the construction of the Runnymede Phase II Storm Drain project, the repair of the O'Connor Pump Station and the development of a Storm Drain Master Plan. These measures will reduce the City's exposure to flood damage. These projects are managed by the City Engineer and are listed as current projects in the City's adopted CIP. The Storm Drain Master Plan, repair of the O'Connor Pump Station and the construction of the Runnymede Phase II Storm Drain project are all programmed into the Fiscal Year 2011/2012 Capital Budget. The estimated cost of these projects is approximately 1 million dollars.

- **Conduct and inventory of privately-owned existing or suspected soft-story residential structures as a first step in establishing voluntary or mandatory programs for retrofitting these buildings (H-c-4)**

This mitigation strategy will be the basis for the development of a strategy to deal with these potentially hazardous structures. The City's Chief Building Official will be developing a strategy and coordinating this effort over the next several years. It is unknown at this time what the total cost of implementing a soft story program will be.

## ***On-Going Mitigation Strategy Programs***

Of the list of mitigation strategies created by ABAG, a number of these are currently being implemented by the City on an on-going basis. The following list highlights some of the disaster mitigation strategies that the City is currently implementing. It is the City's priority to continue to implement these strategies and find funding to sustain disaster mitigation programs over time.

- Encourage the cooperation of utility system providers and cities, counties, and special districts, and PG&E to develop strong and effective mitigation strategies for infrastructure systems and facilities (INFR-a-3)
- Support and encourage efforts of other (lifeline infrastructure) agencies as they plan for and arrange financing for seismic retrofits and other disaster mitigation strategies. (For example, a city might pass a resolution in support of a transit agency's retrofit program.) (INFR-a-5)
- Engage in, support, and/or encourage research by others (such as USGS, universities, or Pacific Earthquake Engineering Research Center-PEER) on measures to further strengthen transportation, water, sewer, and power systems so that they are less vulnerable to damage in disasters. (INFR-a-7)

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- Coordinate with other critical infrastructure facilities to establish plans for delivery of water and wastewater treatment chemicals. (INFR-a-19)
- Comply with all applicable building and fire codes, as well as other regulations (such as state requirements for fault, landslide, and liquefaction investigations in particular mapped areas) when constructing or significantly remodeling infrastructure facilities.( INFR-b-8)
- Assist, support, and/or encourage the U.S. Army Corp of Engineers, various Flood Control and Water Conservation Districts, and other responsible agencies to locate and maintain funding for the development of flood control projects that have high cost-benefit ratios (such as through the writing of letters of support and/or passing resolutions in support of these efforts). (INFR-d-4)
- Continue to repair and make structural improvements to storm drains, pipelines, and/or channels to enable them to perform to their design capacity in handling water flows as part of regular maintenance activities (INFR—d-6, INFR-d-7)
- Work for better cooperation among the patchwork of agencies managing flood control issues. (INFR-d-16)
- Continue to require that all new housing be constructed in compliance with requirements of the most recently adopted version of the California Building Code. (HSNG-f-1)
- Conduct appropriate employee training and support continued education to ensure enforcement of building codes and construction standards, as well as identification of typical design inadequacies of housing and recommended improvements. (HSNG-f-2)
- Require fire sprinklers in all new or substantially remodeled multifamily housing, regardless of distance from a fire station. (HSNG-g-13)
- Conduct periodic fire-safety inspections of all multi-family buildings, as required by State law. (HSNG-g-16)
- Ensure that new private development pays its fair share of improvements to the storm drainage system necessary to accommodate increased flows from the development, or does not increase runoff by draining water to pervious areas or detention facilities. (HSNG-h-3)
- Provide sandbags and plastic sheeting to residents in anticipation of rainstorms, and deliver those materials to vulnerable populations upon request. (HSNG-h-4)
- Provide public information on locations for obtaining sandbags and/or deliver those sandbags to those various locations throughout a city and/or county prior to and/or during the rainy season. (HSNG-h-5)

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- Apply floodplain management regulations for private development in the floodplain and floodway. (HSNG-h-6)
- Encourage owners of properties in a floodplain to consider purchasing flood insurance. For example, point out that most homeowners' insurance policies do not cover a property for flood damage. (HSNG-h-10)
- To reduce flood risk, thereby reducing the cost of flood insurance to private property owners, work to qualify for the highest-feasible rating under the Community Rating System of the National Flood Insurance Program. (ECON-f-1)
- Vulnerability assessments of City facilities and infrastructure (GOVT-a-1)
- Continue to participate not only in general mutual-aid agreements, but also in agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters. (GOVT-c-13)
- Participate in FEMA's National Flood Insurance Program. (GOVT-d-5)
- 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. (ENVI-a-3)
- Comply with applicable performance standards of any National Pollutant Discharge Elimination System municipal stormwater permit that seeks to manage increases in stormwater run-off flows from new development and redevelopment construction projects. (ENVI-a-6)
- Enforce and/or comply with the hazardous materials requirements of the State of California Certified Unified Program Agency (CUPA). (ENVI-a-9)
- Provide information on hazardous waste disposal and/or drop off locations. (ENVI-a-10)
- Establish and enforce requirements for new development so that site-specific designs and source-control techniques are used to manage peak stormwater runoff flows and impacts from increased runoff volumes. (LAND-c-1)
- Establish and enforce regulations concerning new construction (and major improvements to existing structures) within flood zones in order to be in compliance with federal requirements and, thus, be a participant in the Community Rating System of the *National Flood Insurance Program*. (LAND-c-4)

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- Establish and enforce provisions (under subdivision ordinances or other means) that geotechnical and soil-hazard investigations be conducted and filed to prevent grading from creating unstable slopes, and that any necessary corrective actions be taken prior to development approval. (LAND-d-1)

## **Incorporation into Existing Planning Mechanisms**

The City has several related disaster planning mechanisms which include:

- General Plan Safety Element;
- Capital Improvement Program;
- Emergency Operation Plan; and
- City Council Strategic Plan.

The City has a Safety Element in its General Plan that includes a discussion of fire, earthquake, flooding, and other hazards. This annex once adopted, will be added as an appendix to the General Plan Safety Element.

The City's Capital Improvement Program (CIP) identifies and prioritizes needed capital improvements in the City. Many of the capital improvements identified in the CIP implement mitigation strategies in the MJ-LHMP, such as:

- The Runnymede Phase II Storm Drain Project (reduces the City's risk from flooding);
- Emergency Water Connections to Other Agencies (enhances the City's water supply during a disaster);
- Emergency Water Connections to Mutual Water Companies (creates an additional source of water during a disaster);
- Water Storage Tanks (creates an additional source of water during a disaster); and
- Gloria Well Assessment/Rehabilitation (creates an additional source of water during a disaster)

In 2011, the City adopted an Emergency Operation Plan, which describes how the City will manage and coordinate resources and personnel responding to emergency situations. This Hazard Mitigation Plan differs from the Emergency Operation Plan in that it deals with reducing the risk and severity of hazards through mitigation, while the Emergency Operation Plan deals with how to respond to hazards. These are separate documents, but will work in concert to help the City prepare for future hazards.

The City's Strategic Plan provides prioritized objectives for the City and a framework for achieving those objectives over the next several years. The Strategic Plan identified "Enhance Public Safety and Emergency Preparedness" as a priority and listed measures to implement this objective. Those measures coincide with the priority mitigation strategies identified in this annex. In future years, when the City Council considers updating the Strategic Plan, the MJ-LHMP will be useful in helping the City Council to determine what mitigation strategies should be prioritized in the Strategic Plan.

# City of East Palo Alto

## **Plan Update Process**

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

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

The City is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Community Development Department will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the County again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

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

## **Mitigation Plan Point of Contact**

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# City of East Palo Alto

## Exhibit A - Jurisdiction Boundary Map



# City of East Palo Alto

## Exhibit B - Public Meeting Announcements



### **CITY OF EAST PALO ALTO COMMUNITY DEVELOPMENT DEPARTMENT BUILDING SERVICES DIVISION 1960 Tate Street • East Palo Alto, CA 94303**

#### **Hazard Mitigation Plan**

The Association of Bay Area Governments (ABAG) is currently in the process of creating a Multi-Jurisdictional Local Hazard Mitigation Plan (MJ-LHMP). The purpose of this plan is to provide a regional guide for maintaining and enhancing the resistance of the region to natural disasters, in regards to infrastructure, health, housing, economy, government services, education, environment, and land use systems. The completed MJ-LHMP will include mitigation strategies to reduce or eliminate the long-term risk to human life and property from natural disasters in the Bay Area.

The City of East Palo Alto is participating in this regional effort. As part of it, staff will be drafting an addendum to the MJ-LHMP which identifies and prioritizes the hazard mitigation strategies that are the most important for the East Palo Alto community. This addendum will be adopted as part of the regional MJ-LHMP.

By drafting an addendum and participating in the MJ-LHMP, the City of East Palo Alto becomes eligible to receive the following benefits:

- Becoming a more disaster-resistant and resilient community and region;
- Eligibility for hazard mitigation assistance programs, including Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance and Severe Repetitive Loss grant programs;
- Eligibility for points under the National Flood Insurance Program's Community Rating System (CRS); and
- Eligibility for waiver of the 6.25% local match for Public Assistance money after a disaster.

Staff is currently soliciting input from the community about this effort. City staff is organizing a community meeting to discuss the plan and obtain input from the public. This meeting will be part of a regular beat meeting held by the Police Department:

Beat 3 Community Meeting  
Wednesday November 9, 2011  
Palo Mobile Estates  
1885 East Bayshore Road  
East Palo Alto, CA 94303

After community input, staff will present a draft of the addendum to the Planning Commission and City Council for review, feedback and approval. Upon approval, staff will submit the annex to ABAG for incorporation into the MJ-LHMP and approval by FEMA.

For more information about this matter, please contact Chief Building Official, Frank Rainone, at (650) 833-1829 or [frainone@cityofepa.org](mailto:frainone@cityofepa.org).

# City of East Palo Alto

## Exhibit C - Specific Mitigation Strategies