City of San Leandro
Civic Center, 835 E. 14th Street
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www.sanleandro.org

Annex to 2010 Association of Bay Area Governments Local Hazard Mitigation Plan *Taming Natural Disasters*

CITY OF SAN LEANDRO

Stephen H. Cassidy, Mayor

City Council: Pauline Russo Cutter, Michael J. Gregory, Jim Prola, Ursula Reed, Diana M. Souza, Joyce R. Starosciak

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Introduction

The city of San Leandro, incorporated in 1872, is the fifth largest city in Alameda County, with an estimated population of 81,000, and encompassing 15.4 square miles geographically (see jurisdictional map Exhibit A), including 13.3 square miles of land and 2.1 square miles of water in the San Francisco Bay. It is bounded on the north by Oakland and on the south and east by unincorporated Alameda County. The western edge of the city is defined by the San Francisco Bay, while the East Bay hills define the eastern edge. The City's annual operating budget is $70 million, currently employing 290 full-time equivalent personnel (down 26% from prior years). The City currently owns and operates 18 government services buildings, 20 parks and recreation facilities, and a marina harbor. Among the government service buildings is a City Hall, a Police Station, a Public Works Services Center, a Main Library and three branch Libraries, five fire stations, and a full-service waste water treatment facility. The City owns and maintains approximately 176 miles of streets. Fortunately, San Leandro suffered little impact from the 1989 Loma Prieta earthquake. However, following the 1989 El Nino weather season, a ground slide in an eastern hillside residential neighborhood in San Leandro resulted in the demolition of three homes.

The Regional Planning Process

The City of San Leandro participated in various ABAG workshops, conferences, and meetings, including: a sub-regional meeting to review draft priorities and reach consensus on priorities for mitigation; a City-County workshop; and three Housing and Outreach Committee meetings.

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

The Local Planning Process

In 2005, the City of San Leandro completed an extensive Multi-hazard Mitigation Plan as outlined in the Disaster Mitigation Act of 2000 requirements. Representatives from multiple City departments provided input regarding identification and prioritization of appropriate mitigation strategies. Personnel involved in these meetings included senior management and staff from the City Manager's Office, Engineering and Transportation Department, Community Development Department, and Public Works Department, as well as the Alameda County Fire Department.

- Dan Lunsford, Emergency Services Manager in the City Manager's Office, facilitated the study and had oversight of compilation of data and completion of the 2005 Plan. He is also the coordinator of the City's Emergency Operations Center and all emergency response planning and preparations.
- Michael Bakaldin, Environmental Services Manager in the Public Works Department, provided input on hazardous materials sites in the city and how the City coordinates with the Alameda County Fire Department in hazardous materials incidents.
- Rich Brown, Alameda County Fire Captain, provided information on emergency response planning and operations. The City contracts with the County of Alameda for Fire Services.

- William Schock, the City's Chief Building Official, and Jim Richardson, Supervising Building Inspector, provided information regarding compliance in San Leandro with state and local building regulations in relation to seismic safety and building code enforcement.
- Matt Tomas, Senior Planner, provided information regarding the City's General Plan and the policies and recommendations it contains in relation to environmental hazards and emergency preparedness.
- Ian Willis, Police Lieutenant, provided information regarding emergency response procedures for natural disasters.

Process for Updating Plan Sections

Representatives from these same departments reviewed the findings from 2005 and determined that there were no revisions to recommend to City policies and programs for the 2010 ABAG Local Hazard Mitigation Plan. No changes had occurred to City policies and programs since 2005. This 2010 plan does incorporate the new ABAG data on hazards susceptibility, updated risk assessment with new data from ABAG, and the 2010 planning process.

Review of Existing Reports, Studies and Plans

The following documents were reviewed and incorporated into this annex in addition to those documents referenced in Appendix A of the regional plan.

Existing plans, studies, reports, and technical information	**Method of incorporation into the jurisdiction annex**
City of San Leandro Environmental Services Section Hazardous Materials Area Plan, May 2010	Hazards Assessment and priority mitigation actions
City of San Leandro General Plan	Hazard Assessment and priority mitigation actions and programs
City of San Leandro Emergency Operations Center Management Operations Plan	Mitigation strategies

Public Meetings

Opportunities for public comments on the DRAFT mitigation strategies was provided at a public meeting at San Leandro City Hall during a City Council meeting on September 21, 2009 and advertised in the San Leandro Times newspaper. The opportunity to review draft mitigation strategies was also published on the City of San Leandro website for public viewing. No public comments were received from either the meeting or the internet posting. However, seeking further comments, City will adopt the plan in a public hearing format that will provide further opportunities for public comment. In addition, the City will publish a press release to the local media and place an announcement on the City's website to further publicize the local annex document and make the public more aware of the issues and strategies facing the City.

Copies of the newspaper advertisement and the internet posting are included as **Exhibit B** to the City of San Leandro 2010 Annex.

The San Leandro City Council adopted the Plan in a public meeting by Resolution 2011-207 on December 19, 2011. The mitigation strategies will become an implementation appendix of the Safety Element of the San Leandro General Plan.

Hazards Assessment

The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan, to which this is an annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four 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 San Leandro has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes (particularly shaking), wildland urban interface fire, and dam failure inundation pose the greatest risk for potential loss.

The City of San Leandro does not face any natural disasters not listed in the ABAG multi-jurisdictional plan, and no new hazards have been identified by the City of San Leandro since submitting its Multi-Hazard Mitigation Plan to FEMA in 2005.

While the City of San Leandro has undertaken a number of general hazard mapping activities since the first Safety Element was prepared by the City of San Leandro, all of these maps are less detailed and are not as current as those shown on the ABAG website at **http://quake.abag.ca.gov/mitigation/**.

Past Occurrences of Disasters (natural and human-induced)

The County of Alameda, in which the City of San Leandro is located, has experienced a number of different disasters over the last 50 years, including numerous earthquakes, floods, droughts, wildfires, energy shortages, civil disturbances, landslides, and severe storms. The Oakland Hills Firestorm of 1991, for example, ranks as one of the worst wildland-urban firestorm disasters to ever strike the United States with 25 deaths, 150 injuries, and the displacement of over 10,000 persons. With destruction and damage to over 3,400 residential units, losses were in excess of $1.5 Billion.

The Loma Prieta Earthquake of 1989 is another example of the kind of large scale disaster which can strike the Bay Area. It killed 63 persons, injured 3,757, and displaced over 12,000 persons. With over 20,000 homes and businesses damaged and over 1,100 destroyed, this quake caused approximately $6 Billion of damage. Reconstruction continues some two decades later as the replacement for Oakland-Bay Bridge is still several years from completion.

More information on State and Federally declared disasters in the City of San Leandro may be found at http://quake.abag.ca.gov/mitigation/ThePlan-D-Version-December09.pdf

In addition to the declared disasters noted in Appendix D, locally significant incidents that have also impacted Alameda County and San Leandro in the last several years include:

- February 1995 El Nino. Storms caused a landslide in San Leandro, resulting in the demolition of three homes.
- January 1, 2006. Storms struck the Bay Area; damage to infrastructure occurred at the San Leandro Shoreline-Marina due to tidal action from the San Francisco Bay.
- January 2009 and July 2010 – Mehserle Shooting and subsequent criminal trial verdict. Civil Disturbance. City of Oakland activated their EOC. Alameda County monitored situation. The City of San Leandro had a partial activation of its EOC, monitored the situation, and San Leandro Police Department assisted in mutual aid response to both incidents.
- Weather, Summer Heat and Winter Cold. During weather extremes Alameda county OES monitors situation with cities that are affected. The City of San Leandro also monitors the situation and opens a Cooling Center as appropriate.
- February 27,2010 – Chile Earthquake/Tsunami. State EOC activated. Alameda County EOC monitored situation, as did the City of San Leandro because of city property bordering the San Francisco Bay.

Risk Assessment

Urban Land Exposure

The City of San Leandro examined the hazard exposure of San Leandro 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.

In general, the hazard exposure of the city of San Leandro is remaining steady over time as the amount of urban land remains constant (San Leandro is an essentially built-out community). San Leandro actually reduced the acres of urban land in the 100 year flood zone over the last 10 years due to changes in the new FEMA flood maps. The following table described the exposure of urban land within the unincorporated County to the various hazards.

Exposure (acres of urban land)			
Hazard	**2000**	**2010**	**Change**
Total Acres of Urban Land	9,815	9,924	109
Earthquake Faulting (within CGS zone)	14	46	32
Earthquake Shaking (within highest two shaking categories)[1]	2,063	2,541	4,604
Earthquake-Induced Landslides (within CGS study zone)[2]	93	93	0
Liquefaction (within moderate, high, or very high liquefaction susceptibility	7,775	7,501	<274>
Flooding[3] (within 100 year floodplain)	2,099	1,341	<758>

[1] In large part because the Hayward, Greenville, and Calaveras fault systems run through the County.
[2] The California Geological Survey continues to map Alameda County and added the Livermore-Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the densely populated areas in Alameda County are mostly done.

Flooding (within 500 year floodplain)	552	407	<145>
Landslides (within areas of existing landslides)	385	385	0
Wildfire (subject to high, very high, or extreme wildfire threat)[4]	20	10	<10>
Wildland-Urban Interface Fire Threat	2,465	2,462	<3>
Dam Inundation (within inundation zone)	6,919	6,922	3
Sea Level Rise[5]	not applicable		
Tsunamis[6] (within inundation area)	not applicable		
Drought[7]	9,815	9,924	109

[3] The decreased due to better and more accurate mapping.
[4] The decrease is due to better and more accurate mapping.
[5] The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.
[6] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Acres 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 inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.
[7] The entire Alameda County unincorporated area is subject to drought.

Infrastructure Exposure

The City of San Leandro 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 255 miles of roadway in the City of San Leandro, the following are exposed to the various hazards analyzed.

Exposure (miles of infrastructure)						
Hazard	**Roadway**		**Transit**		**Rail**	
	2005	**2010**	**2005**	**2010**	**2005**	**2010**
Total Miles of Infrastructure	241	255	4	7	16	17
Earthquake Shaking (within highest two shaking categories)	76	74	1	1	2	1
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility	228	215	4	7	16	17
Liquefaction Hazard (within CGS study zone)[1]	215	229	4	7	16	197
Earthquake-Induced Landslides within CGS study zone)[2]	0	1	0	0	0	0

[1] 1,083 miles of roadway, 3 miles of transit, and 21 miles of rail are outside the area that has been evaluated by CGS for this hazard
[2] The California Geological Survey continues to map Alameda County and added the Livermore-Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the

Earthquake Faulting (within CGS zone)	0	1	0	0	0	0
Flooding (within 100 year floodplain)	14	10	0	0	1	0
Flooding (within 500 year floodplain)	18	14	0	0	0	1
Landslides (within areas of existing landslides)	12	12	0	0	0	0
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	0	0	0	0
Wildland-Urban Interface Fire Threat	71	71	0	0	3	4
Dam Inundation (within inundation zone)	192	206	3	6	14	16
Sea Level Rise[3]	not applicable					
Tsunamis[4]	not applicable					
Drought[5]	not applicable					

densely populated areas in Alameda County are mostly done. 1,083 miles of roadway, 3 miles of transit, and 21 miles of rail are outside the area that has been evaluated by CGS for this hazard

[3] The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.

[4] 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 inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.

[5] Drought is not a hazard for roadways.

Exposure of City Owned Buildings Plus Critical Facilities

Finally, the City examined the hazard exposure of critical facilities located within San Leandro and city-owned buildings based on the information on ABAG's website at **http://quake.abag.ca.gov/mitigation/pickcrit2010.html**. The City of San Leandro provided a list of the critical facilities it owns to ABAG. 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.

Exposure (number of facility types)								
Hazard	**Hospitals**		**Schools**		**Locally owned critical facilities**		**Locally owned bridges and interchanges**	
	2005	**2010**	**2005**	**2010**	**2005**	**2010**	**2005**	**2010**
Total Number of Facilities	3	2	20	24	11	10	23	22
Earthquake Shaking (within highest two shaking categories)	3	2	20	24	11	10	23	22
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility	1	1	19	23	11	10	23	21
Liquefaction Hazard (within CGS study zone)[1]	1	1	18	23	11	10	23	21
Earthquake-Induced Landslides (within CGS study zone)[2]	0	0	0	0	0	0	0	0
Earthquake Faulting (within CGS zone)	0	0	0	0	0	0	0	0
Flooding (within 100 year floodplain)	0	0	0	2	0	1	0	2
Flooding (within 500 year floodplain)	0	0	3	2	2	4	3	0
Landslides (within areas of existing landslides)	3	1	0	0	0	0	0	1
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	0	0	0	0	0	0
Wildland-Urban Interface Fire Threat	1	1	5	7	6	6	4	5
Dam Inundation	2	2	17	22	9	8	19	17
Sea Level Rise (exposed to 16in sea level rise)[3]	-	-	-	-	-	-	-	-
Sea Level Rise (exposed to 55in sea level rise)[4]	-	-	-	-	-	-	-	-
Tsunamis[5] (within inundation area)	-	-	-	-	-	-	-	-
Drought[6]	-	-	-	-	-	-	-	-

[1] Two county-owned critical facilities are outside the area that has been evaluated by CGS for this hazard
[2] The California Geological Survey continues to map Alameda County and added the Livermore-Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the densely populated areas in Alameda County are mostly done.
[3] Sea level rise data was not available in 2005
[4] Sea level rise data was not available in 2005
[5] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. 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.

[6] Drought will not affect locally owned facilities directly.

Repetitive Loss Properties

There are no repetitive loss properties in the San Leandro based on the information at **http://quake.abag.ca.gov/mitigation/pickflood.html**. In 2004, San Leandro had no repetitive loss property that was outside the flood plain.

Other risks

The City of San Leandro 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 of San Leandro 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.

National Flood Insurance Program

The City of San Leandro has participated in the National Flood Insurance Program (NIFP) since 1974. The City also participates in the Community Rating System (CRS) and is currently class 8. The City first joined NIFP on June 7, 1974. Since that time there have been no changes in the City's approved plan. The City has participated in the CRS and is a CRS member. Alameda County Flood Control data and maps are used to regulate flood hazard areas along with FEMA maps. There has been reluctance on the part of individual property owners to participate in the program, and individual property owners remain the general hurdle for effective implementation of the NFIP. The City of San Leandro has no structures which have required flood proofing, nor does is permit construction within a floodway. Most zones in San Leandro are rated "A", in which structures or plots are located above the base flood elevation in accordance with NFIP guidelines.

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. This goal continues to be the goal of the City of San Leandro in designing its mitigation program.

Mitigation Activities and Priorities

Completed Mitigation Actions

Completion of an Emergency Operations Center (GOVT-c-10) – At the time the drafted plan was approved by the San Leandro City Council, a community center was under construction which would also serve at the City's Emergency Operations Center (EOC). That facility was completed and open for business in April 2011, and has been equipped to function as an EOC should the need arise to activate the City's emergency response organization. Training of emergency response and EOC personnel is on-going.

Install alert and warning systems for rapid or shelter-in-place (GOVT-c-14) - The City has contracted with CodeRed, a nationally recognized automated telephone and text message system that can notify affected portions of the community, or the entire community when emergency alerts or notifications are needed. Additionally, the City is in discussions with a second television programming provider (AT&T U-verse) to establish a Government Access television channel which will permit broadcast of emergency messages and alerts.

Future Mitigation Actions and Priorities

As a participant in the 2010 ABAG multi-jurisdictional planning process, the staff of the City of San Leandro helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The decision on priority was made 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.

These draft strategies were submitted to the San Leandro City Council for review on September 21, 2009. The draft strategies will be provided to the City Council for adoption pending approval of this LHMP by FEMA.

The City also anticipates completion of a number of mitigation tasks over the next 5 years. This list includes implementation process, funding strategy, responsible agency, and approximate time frame.

The proposed projects include the following:

Retrofit of Seismically-deficient Road Structures – Replacement of two major highway overcrossings.

- Economic Analysis: Significant risk to life safety and economic stability of the community should two overcrossings over Highway 880 fail.
- Responsible Department: Engineering & Transportation
- Funding Source: a combination of State Proposition 1B funds for highway safety and traffic reduction projects, and Federal LATIP funds.
- Timeframe: Construction to begin in 2011
- Mitigation Strategy Number: Infr-B-1

Participation in Interoperable Communications System – A P25 compliant communications systems with region wide interoperability.

- Economic Analysis: Risk analysis and economic loss demonstrated the need for proposed investment in a regional program.
- Responsible Department: City Manager's Office, Police Department and Public Works Department
- Funding Source: City General Funds and any grant funds which can be identified and secured
- Timeframe: Complete operability targeted for FY 2013
- Mitigation Strategy: Govt-C-7

On-Going Mitigation Strategy Programs

The City has many on-going mitigation programs that help create a more disaster-resistant region. The following list highlights those programs identified as *Existing Programs* in the mitigation strategy spreadsheet. Others are on-going programs that are currently underfunded. It should be noted that, while the ABAG model for mitigation strategies identifies a number of priorities that may be underfunded by agencies, San Leandro has historically been at the forefront of pursuing hazard mitigations, and many programs which ABAG recommends for future consideration are already standard practice in San Leandro.

- Wildland Fire Mitigation – While the risk of wildland fires is minimal in San Leandro due to the urban nature of the community, the Alameda County Fire Department (ACFD), which is San Leandro's fire services provider, provides "defensible space" information to the community for those residents living near open land. In addition:
    - ACFD works closely with the San Leandro Police Department's Code Compliance Unit to address weed violations on private property, using sections of the Uniform Fire Code and the City's Neighborhood Preservation Ordinance for enforcement purposes.
    - The City's Public Works Department maintains strict control of weed growth on City property.
    - The Code Compliance Unit works with the Union Pacific Railroad annually to remove weed growth along railroad rights-of-way.
    - The City's Community Development Department will also consider a fire prevention buffer zone for future planning of all areas adjacent open space in the San Leandro hills and along the shoreline, although most of the shoreline area is protected open space and most adjacent areas will not be further developed.
    - The Uniform Building Code has been amended to require more fire resistive roofs within various areas of the community.
    - The City's Building Division enforces Chapter 7A "Materials and Construction methods for Exterior Wildfire Exposure" of the Uniform Building Code, for new construction in any Very High Fire Severity Zone.
    - The Alameda County Fire Department enforces vegetation maintenance and cut standards used within unincorporated areas abutting the city.
    - Alameda County is currently in the final stage of establishing a Community Wildfire Protection Plan (CWPP). Once complete this will allow ACFD to get preference points for federal mitigation money. .
    - Police and Fire work together to ensure that all overgrown vegetation complaints are investigated. We use both the Fire Code and the Neighborhood Preservation provisions.

- Coordination with the State Division of Safety of Dams to ensure that cities and counties are aware of the timeline for the maintenance and inspection of dams whose failure would impact their jurisdiction (GOVT-a-8).
    - Additionally, the East Bay Municipal Utilities District, which owns and maintains the two dams closest to San Leandro (Lake Chabot Dam and the Upper San Leandro Reservoir Dam) is a member of the City's Disaster Council, insuring on-going

communication and interaction with this agency regarding the stability of the local dams and emergency response planning.

- Vulnerability assessments of City facilities and infrastructure (GOVT-a-1).
    - One of the City's essential public facilities, a multi-structure parking garage, has been demolished and construction is underway to build a new, seismically strengthened garage. Construction is anticipated to be completed in 2012.
- Non-structural mitigation for building contents (GOVT-a-4);
- Development of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies (GOVT-c-7);
- Maintain and update the City of San Leandro Standardized Emergency Management System Plan (GOVT-c-12);
- Participation in general mutual-aid agreements and agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters (GOVT-c-13).
    - The City hosts quarterly meetings of the San Leandro Disaster Council, a group of local first response agencies responsible for community safety and coordination following any disaster, insuring that there will be coordinated response and recovery efforts by all local agencies. The San Leandro Disaster Council includes elected and citizen representatives from City government, both the San Leandro and San Lorenzo Unified School Districts, California Emergency Management Agency, Alameda County Office of Emergency Services/Homeland Security, Alameda County Public Health Department, the American Red Cross, California Department of Transportation, as well as local hospitals, utility companies and non-profit public service agencies.
- Participation in FEMA's National Flood Insurance Program (GOVT-d-5)
- Incorporate FEMA guidelines and suggested activities into local government plans and procedures for managing flood hazards (LAND-c-2);
- Increase efforts to reduce landslides and erosion in existing and future development through continuing education of design professionals on mitigation strategies (HSNG—i-2, ECON-g-2);
    - Conduct an inventory of existing or suspected soft-story residential, commercial and industrial structures (HSNG-c-4, ECON-b-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)

Incorporation into Existing Planning Mechanisms

The City of San Leandro has several planning mechanisms which help create a more disaster-resistant region. The following list highlights those programs identified as Existing Programs in the mitigation strategy spreadsheet. Others are on-going programs that are currently underfunded. It is the City's priority to find additional funding to sustain these on-going programs over time.

- ♦ General plan safety element
- ♦ Capital Improvements Plan
- ♦ San Leandro Climate Action Plan (http://www.sanleandro.org/depts/cd/plan/default.asp)

The City has a Safety Element in its General Plan that includes a discussion of fire, earthquake, flooding, and landslide hazards. This Plan will be adopted as an implementation appendix to the Safety Element following final review by FEMA. In addition, the City enforces the requirements of the California Environmental Quality Act (CEQA), which, since 1988, requires mitigation for identified natural hazards. The City has used these pre-existing programs as a basis for identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Plan Update Process

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

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

The City 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 City Manager's Office will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. 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 to obtain as much community input and participation as possible to address the needs and concerns of San Leandro's community. Prior to adoption of updates, the City 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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Alternate Point of Contact

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Exhibit A – Jurisdiction Boundary Map

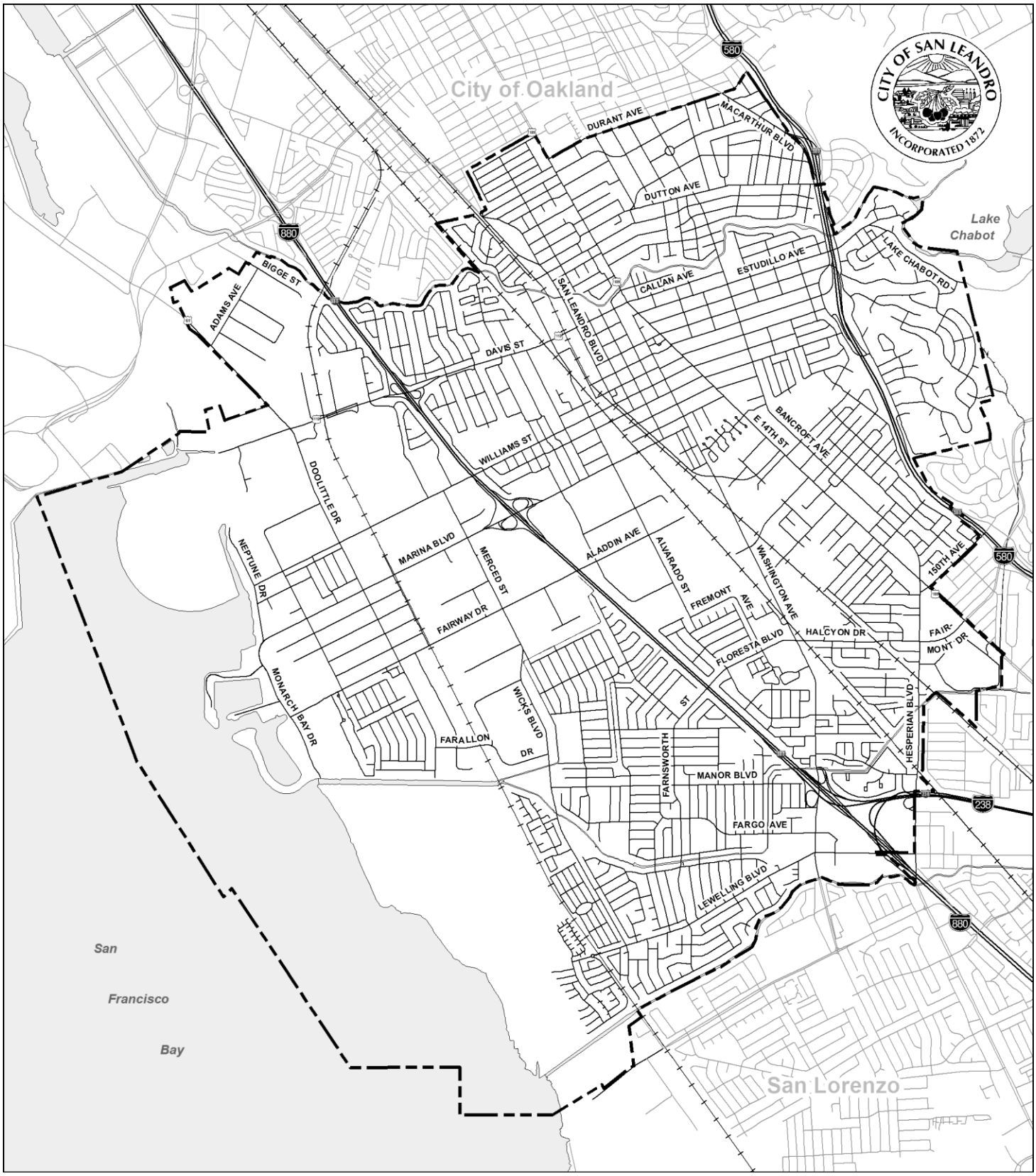

Exhibit B - Public Meeting Announcements

San Leandro Times THURSDAY, SEPTEMBER 17, 2009 7

BUSINESS

CITY CORNER

CURRENT ISSUES AND INFORMATION FROM THE CITY OF SAN LEANDRO

Drafted Multi-Jurisdictional Local Hazard Mitigation Plan Ready for Review

The City, along with numerous other agencies in the Bay Area, is working with the Association of Bay Area Governments to update a Multi-Jurisdictional Local Hazard Mitigation Plan to maintain and enhance the disaster resistance of our region.

The drafted version of the Mitigation Strategies is available for public review on the City's website http://www.ci.san-leandro.ca.us/slemersvcs.html. Additionally, there will be a presentation made before the San Leandro City Council on Monday, September 21, 7:00 p.m. during the regularly scheduled City Council meeting at City Hall.

Comments on the drafted strategies are due back by Wednesday, September 30. Please share your comments or questions with:

Community Relations Representative Kathy Ornelas
835 East 14th Street, San Leandro, CA 94577
510-577-3358 • TDD: 510-577-3343
kornelas@ci.san-leandro.ca.us

Exhibit B - Public Meeting Announcements

DRAFTED MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

Major disasters could strike the San Francisco Bay Area at any time. Lives will be lost, property damage will occur, and the Bay Area economy will suffer. The City of San Leandro, along with more than 90 agencies throughout Alameda County and the Bay Area, is participating in developing a plan for public policies needed to mitigate the natural hazards that affect the Bay Area and accelerate economic recovery following a disaster.

Under the coordination of the Association of Bay Area Governments (ABAG), this multi-jurisdictional effort should not only maintain and enhance the disaster resistance of our region, but also fulfill the requirements of the nation's Disaster Mitigation Act of 2000 for all local governments to develop and adopt this type of plan.

The City of San Leandro has completed its draft of the mitigation strategies being adopted by all participating agencies. It is available for review at the link below. Likewise, the PowerPoint presentation to be made to the San Leandro City Council on September 21, 2009 is available on the link below.

We welcome your review of and comment on these drafted strategies. Please submit all comments or questions by Wednesday, September 30, 2009 to:

City of San Leandro
Community Relations Representative Kathy Ornelas
835 East 14th Street
San Leandro, CA 94577
510-577-3358
TDD: 510-577-3343
kornelas@ci.san-leandro.ca.us

Additional information on the Multi-Jurisdictional Local Hazard Mitigation Plan may be found on ABAG's website: http://quake.abag.ca.gov/mitigation/

- Power Point Presentation on Multi-Jurisdictional Local Hazard Mitigation Plan
- Drafted Strategies for Multi-Jurisdictional Local Hazard Mitigation Plan

San Leandro Times

AN INDEPENDENT HOMETOWN NEWSPAPER SERVING SAN LEANDRO, ASHLAND, SAN LORENZO AND SHEFFIELD VILLAGE

VOL. 21 • NO. 48 THURSDAY, DECEMBER 1, 2011 SAN LEANDRO • CALIFORNIA

CITY CORNER

CURRENT ISSUES AND INFORMATION FROM THE CITY OF SAN LEANDRO

San Leandro Local Hazard Mitigation Plan Update Ready for Review

The City, along with numerous other agencies in the Bay Area, is working with the Association of Bay Area Governments to update a Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) to maintain and enhance the disaster resistance of our region.

San Leandro's Local Hazard Mitigation Plan 2010 Annex is available for public review on the City's website: http://www.sanleandro.org/services/emergency/default.asp. Additionally, there will be a Public Hearing to consider adoption of the LHMP Annex on Monday, December 19, at 7:00 p.m. during the regularly scheduled City Council meeting at City Hall.

Comments on the LHMP Annex are due back by Tuesday, January 2, 2012.
Please send your comments or questions to:
Community Relations Representative Kathy Ornelas
835 East 14th Street
San Leandro, CA 94577
510-577-3358
TDD: 510-577-3343
Fax: 510-577-3340
kornelas@sanleandro.org

Low Graphics Version

Thursday, November 17, 2011

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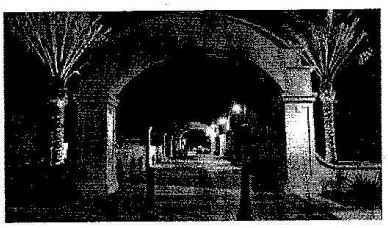

City Council Agendas 2011
Public Library
San Leandro Assist
Bids
Employment Opportunities
Recreation and Human Services
Police Department
Business Development

Fairway/Aladdin Closed at I-880

The Fairway Drive/Aladdin Avenue bridge over Interstate 880 will be closed due to road construction on November 16 and 17. Signs will be in place to detour traffic to the Marina Boulevard I-880 overcrossing. For more information, please call 577-3431.

Local Hazard Mitigation Plan 2010 Annex

The City of San Leandro, in collaboration with the Association of Bay Area Governments, has completed an update of its Local Hazard Mitigation Plan and is seeking community input on the plan, which can be found at this link.

If you wish to comment on the Plan, please contact Kathleen Ornelas, Community Relations Representative, at (510) 577-3358, or kornelas@sanleandro.org.

Community Update - November 2011

Please view the Community Update, which includes information on projects and happenings in the Community

Additional News

<< November 17, 2011 >>

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

View Full Calendar

Thu., November 17, 2011

8:00 AM - 9:00 AM
Aqua Exercise

10:00 AM
Senior Commission

10:30 AM - 11:15 AM
PRESCHOOL STORYTIME - Manor Branch Library

3:00 PM
Responses to Bid No. 11-12.009 Sludge Haul 2011-12 due to the Finance/Purchasing Office no later than 3:00 PM local time

4:00 PM - 5:30 PM
City and San Leandro Unified School District Liaison Committee Meeting

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The City of San Leandro
835 East 14th Street, San Leandro, CA 94577
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http://www.sanleandro.org/default.asp

11/17/2011

Emergency Preparedness Home
Alerting & Warning System
Code Red - Community Alerting System
Community Preparedness
Dealing With Biological Threats
Emergency Preparedness Tips
Emergency Information
Emergency Management Links
Emergency Management Program
Emergency Plan
H1N1 Swine Flu Information
Hazard Mitigation Master Plan
Multi-Jurisdictional Local Hazard Mitigation Plan
Triad Alliance

Emergency Preparedness

The City of San Leandro places a top priority on emergency preparedness and has put in place an emergency alerting and warning system to help warn and advise citizens in the event of a major disaster. The Bay Area Chapter of the American Red Cross offers personal preparedness training for our community. Call 877-PREP BAY (877-773-7229) to request training for your group, or go to their website below for groups of 25 or larger. The City also provides a number of other resources to help citizens prepare for emergencies. Choose from the links below for more information.

- H1N1 Flu (Swine Flu) Information
- Drafted Multi-Jurisdictional Local Hazard Mitigation Plan
- San Leandro's Alerting & Warning System
- Seven Steps to Earthquake Safety
- Dealing with Biological Threats
- Bay Area Mass Prophylaxis
- How to Prepare for an Emergency
- Community Emergency Response Team (C.E.R.T.) Training
- American Red Cross Personal and Business Preparedness Training
- Earthquake Retrofitting Your Home
- Earthquake Fault Maps
- The City of San Leandro Emergency Organization
- Preparing the Vulnerable Population
- Additional Links

Local Hazard Mitigation Plan 2010 Annex

The City of San Leandro, in collaboration with the Association of Bay Area Governments, has completed an update of its Local Hazard Mitigation Plan and is seeking community input on the plan, which can be found at the links below.
San Leandro Local Hazard Mitigation Plan 2010 Annex
San Leandro Local Hazard Mitigation Plan Strategies

If you wish to comment on the Plan, please contact Kathleen Ornelas, Community Relations Representative at (510) 577-3358, or kornelas@sanleandro.org. Written comments may also be sent to:
City Manager's Office
City of San Leandro
835 East 14th Street
San Leandro, CA 94577

A City Council Public Hearing will be held on Monday, **December 19, 2011**, 7:00 p.m. in the City Council Chambers to also receive comments on the Plan.

For additional information, contact the City Manager's Office at (510) 577-3351.

The City of San Leandro
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Exhibit C – City of San Leandro Mitigation Strategies

The complete Mitigation Strategies are available online at:
http://www.abag.ca.gov/bayarea/eqmaps/mitigation/strategy.html

Attached is a representative sample.

Infrastructure Mitigation Strategies

			Priority (CHECK ONLY ONE) Blue shading reflects ABAG priority.									
2009-2010 Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, underfunded	Very High - Unofficial Program- Becomes Official on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Existing Program under funded, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study), WHY if not same as regional priority, OR Other Comments
INFR - a - Multi-Hazard (owned by the infrastructure provider filling out this form, including a city, county, or special district)												
a-1	Assess the vulnerability of critical facilities owned by infrastructure operators subject to damage in natural disasters or security threats, including fuel tanks and facilities owned outside of the Bay Area that can impact service delivery within the region. Note - Infrastructure agencies, departments, and districts are those that operate transportation and utility facilities and networks.	EQ LS WF FL SEC	XX								Engineering and Transportation	Most critical facilities have been seismically strengthened; others are brought up to code as Capital Improvement Projects move forward.
a-2	If a dam owner, comply with State of California and federal requirements to assess the vulnerability of dams to damage from earthquakes, seiches, landslides, liquefaction, or security threats.	EQ LS WF FL SEC							XX		EBMUD	
a-3	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.	EQ LS WF FL DR SEC	XX								City Manager	PGE, EBMUD and AT&T are members of San Leandro Disaster Council and meet with City officials periodically to discuss utility system protections.
a-4	Retrofit or replace critical lifeline infrastructure facilities and/or their backup facilities that are shown to be vulnerable to damage in natural disasters.	EQ LS WF FL SEC		XX							Engineering & Transportation	As funds become available, infrastructure facilities (i.e. sewer systems) are being replaced.
a-5	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.)	EQ LS WF FL DR SEC	XX								City Manager	Standard procedure
a-6	Develop a plan for speeding the repair and functional restoration of water and wastewater systems through stockpiling of shoring materials, temporary pumps, surface pipelines, portable hydrants, and other supplies, such as those available through the Water /Wastewater Agency Response Network (WARN). Communicate that plan to local governments and critical facility operators.	EQ LS WF FL DR SEC	XX								Public Works and Engineering & Transportation	Project has been completed.

Infrastructure Mitigation Strategies

2009-2010 Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, underfunded	Very High - Unofficial Program- Becomes Official on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Existing Program under funded, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study), WHY if not same as regional priority, OR Other Comments
a-7	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.	EQ LS WF FL DR SEC	XX								City Manager	Standard procedure
a-8	Pre-position emergency power generation capacity (or have rental/lease agreements for these generators) in critical buildings of cities, counties, and special districts to maintain continuity of government and services.	EQ LS WF FL SEC	XX								Public Works and Engineering & Transportation	Critical facilities have been provided with emergency power equipment or use alternative power.
a-9	Ensure that critical intersection traffic lights function following loss of power by installing battery back-ups, emergency generators, or lights powered by alternative energy sources such as solar. Proper functioning of these lights is essential for rapid evacuation, such as with hazmat releases resulting from natural disasters.	EQ LS WF FL SEC		XX							Public Works	Limited funding has redirected priorities at the present time, however this can be considered for future planning.
a-10	Develop unused or new pedestrian rights-of-way as walkways to serve as additional evacuation routes (such as fire roads in park lands).	EQ LS WF FL SEC								XX	Public Works and Engineering & Transportation	Limited funding has redirected priorities at the present time, however this can be considered for future planning. Topography of the city and the general urbanized nature of the city and surrounding area make for limited
a-11	Minimize the likelihood that power interruptions will adversely impact lifeline utility systems or critical facilities by ensuring that they have adequate back-up power.	EQ LS WF FL SEC		XX							Engineering & Transportation when in conjunction with Capital Improvement Projects.	Standard procedure
a-12	Encourage replacing above ground electric and phone wires and other structures with underground facilities, and use the planning-approval process to ensure that all new phone and electrical utility lines are installed underground.	EQ LS WF FL SEC		XX							Engineering & Transportation	Utilities are beind undergrounded as new developments are planned, as street redesign projects occur, or as funding is available.
a-13	If you own a dam, coordinate with the State Division of Safety of Dams to ensure an adequate timeline for the maintenance and inspection of dams, as required of dam owners by State law, and communicate this information to local governments and the public.	EQ LS WF FL SEC							XX		EBMUD	

Infrastructure Mitigation Strategies

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a-14	Encourage communication between State Emergency Management Agency (CalEMA), FEMA, and utilities related to emergencies occurring outside of the Bay Area that can affect service delivery in the region.	EQ LS WF FL DR SEC	XX								City Manager	City staff participates with local Emergency Managers' Association to help support regional planning.
a-15	Ensure that transit operators, private ambulance companies, cities, and/or counties have mechanisms in place for medical transport during and after disasters that take into consideration the potential for reduced capabilities of roads following these same disasters.	EQ LS WF FL SEC							XX		Alameda County	
a-16	Recognize that heat emergencies produce the need for non-medical transport of people to cooling centers by ensuring that (1) transit operators have plans for non-medical transport of people during and after such emergencies including the use of paratransit and (2) cities, counties, and transit agencies have developed ways to communicate the plan to the public.	Heat	XX								Recreation and Human Services	Flex Shuttle service provides transportation to San Leandro's designated cooling center.
a-17	Effectively utilize the Regional Transportation Management Center (TMC) in Oakland, the staffing of which is provided by Caltrans, the CHP and MTC. The TMC is designed to maximize safety and efficiency throughout the highway system. It includes the Emergency Resource Center (ERC) which was created specifically for primary planning and procedural disaster management. RESPONSIBLE AGENCY: MTC only.	EQ LS WF FL SEC							XX		MTC	
a-18	Develop (with the participation of paratransit providers, emergency responders, and public health professionals) plans and procedures for parasit system response and recovery from disasters.	EQ LS WF FL Heat SEC		XX							Recreation and Human Services	Discussions on going with paratransit provider.
a-19	Coordinate with other critical infrastructure facilities to establish plans for delivery of water and wastewater treatment chemicals.	EQ LS WF FL SEC	XX								Pbulic Works and EBDA	Will be considered for future planning. There may be future funding opportunities from EBDA

Infrastructure Mitigation Strategies

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a-20	Establish plans for delivery of fuel to critical infrastructure providers.	EQ LS WF FL SEC	XX								Finance	Working with consortium of cities to establish fuel cooperative.
a-21	As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems.	EQ LS WF FL SEC	XX								City Manager	Police building has been designated the back-up EOC
a-22	Monitor scientific studies of the Sacramento-San Joaquin Delta and policy decisions related to the long-term disaster resistance of that Delta system to ensure that decisions are made based on comprehensive analysis and in a scientifically-defensible manner. Levee failure due to earthquakes, flooding, and climate change (including sea level rise and more frequent and more severe flooding) are all of concern. The long-term health of the Delta area is critical to the Bay Area's water supply, is essential for the San Francisco Bay and estuary's environmental health, provides recreation opportunities for Bay Area residents, and provides the long-term sustainability of Delta communities. While only part of the Delta is within the nine Bay Area counties covered by this multi-jurisdictional LHMP, the Delta is tied to the infrastructure, water supply, and economy of the Bay Area.	EQ FL		XX							Public Works and Engineering & Transportation	Will be considered for future planning.
INFR - b - Earthquakes												
b-1	Expedite the funding and retrofit of seismically-deficient city- and county-owned bridges and road structures by working with Caltrans and other appropriate governmental agencies.	EQ	XX								Engineering & Transportation	Replacement underway for two major overcrossings
b-2	Establish a higher priority for funding seismic retrofit of existing transportation and infrastructure systems (such as BART) than for expansion of those systems.	EQ							XX		Transit agencies	
b-3	Include "areas subject to high ground shaking, earthquake-induced ground failure, and surface fault rupture" in the list of criteria used for determining a replacement schedule for pipelines (along with importance, age, type of construction material, size, condition, and maintenance or repair history).	EQ	XX								Engineering and Transportation	Standard procedure

Infrastructure Mitigation Strategies

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b-4	Install specially-engineered pipelines in areas subject to faulting, liquefaction, earthquake-induced landsliding, or other earthquake hazard.	EQ		XX							Engineering and Transportation	Ground conditions considered as part of design process. Higher priority placed on large diameter, higher flow pipelines or high risk lines such as creek or freeway crossings.
b-5	Replace or retrofit water-retention structures that are determined to be structurally deficient, including levees, dams, reservoirs and tanks.	EQ							XX		EBMUD	
b-6	Install portable facilities (such as hoses, pumps, emergency generators, or other equipment) to allow pipelines to bypass failure zones such as fault rupture areas, areas of liquefaction, and other ground failure areas (using a priority scheme if funds are not available for installation at all needed locations).	EQ							XX		EBMUD	
b-7	Install earthquake-resistant connections when pipes enter and exit bridges and work with bridge owners to encourage retrofit of these structures.	EQ							XX		EBMUD	
b-8	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.	EQ	XX								Engineering & Transportation and Community Development	Retrofitted or replaced buildings have been built to code
b-9	Clarify to workers in critical facilities and emergency personnel, as well as to elected officials and the public, the extent to which the facilities are expected to perform only at a life safety level (allowing for the safe evacuation of personnel) or are expected to remain functional following an earthquake.	EQ	XX								City Manager	This can be incorporated into future training.
b-10	Develop a water-based transportation "system" across the Bay for use in the event of major earthquakes. Implementation of such a system could prove extremely useful in the event of structural failure of either the road-bridge systems or BART and might serve as an adjunct to existing transportation system elements in the movement of large numbers of people and/or goods.	EQ							XX		Transit agencies	

Infrastructure Mitigation Strategies

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INFR - c - Wildfire												
c-1	Ensure a reliable source of water for fire suppression (meeting acceptable standards for minimum volume and duration of flow) for existing and new development.	WF		XX							Engineering & Transportation	Standard procedure
c-2	Develop a coordinated approach between fire jurisdictions and water supply agencies to identify needed improvements to the water distribution system, initially focusing on areas of highest wildfire hazard (including wildfire threat areas and in wildland-urban-interface areas).	WF							XX		Alameda County Fire	
c-3	Develop a defensible space vegetation program that includes the clearing or thinning of (a) non-fire resistive vegetation within 30 feet of access and evacuation roads and routes to critical facilities, or (b) all non-native species (such as eucalyptus and pine, but not necessarily oaks) within 30 feet of access and evacuation roads and routes to critical facilities.	WF							XX		Alameda County Fire	
c-4	For new development, ensure all dead-end segments of public roads in high hazard areas have at least a "T" intersection turn-around sufficient for typical wildland fire equipment.	WF	XX								Engineering & Transportation	Standard procedure
c-5	For new development, enforce minimum road width of 20 feet with an additional 10-foot clearance on each shoulder on all driveways and road segments greater than 50 feet in length in wildfire hazard areas.	WF	XX								Engineering & Transportation	Standard procedure
c-6	Require that development in high fire hazard areas provide adequate access roads (with width and vertical clearance that meet the minimum standards of the *Fire Code* or relevant local ordinance), onsite fire protection systems, evacuation signage, and fire breaks.	WF	XX								Engineering & Transportation	Standard procedure
c-7	Ensure adequate fire equipment road or fire road access to developed and open space areas.	WF	XX								Engineering & Transportation	Standard procedure
c-8	Maintain fire roads and/or public right-of-way roads and keep them passable at all times.	WF		XX							Public Works	Standard procedure
INFR - d - Flooding												
d-1	Conduct a watershed analysis of runoff and drainage systems to predict areas of insufficient capacity in the storm drain and natural creek system.	FL							XX		Alameda County Flood Control District	
d-2	Develop procedures for performing a watershed analysis to examine the impact of development on flooding potential downstream, including communities outside of the jurisdiction of proposed projects.	FL							XX		Alameda County Flood Control District	

Infrastructure Mitigation Strategies

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d-3	Conduct a watershed analysis at least once every ten years unless there is a major development in the watershed or a major change in the Land Use Element of the General Plan of the cities or counties within the watershed.	FL							XX		Alameda County Flood Control District	
d-4	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).	FL	XX								City Manager and Engineering & Transportation	Standard procedure
d-5	Pursue funding for the design and construction of storm drainage projects to protect vulnerable properties, including property acquisitions, upstream storage such as detention basins, and channel widening with the associated right-of-way acquisitions, relocations, and environmental mitigations.	FL		XX							Engineering and Transportation for City-owned facilities, mostly smaller diameter pipelines. Alameda County Flood Control District for large diameter pipelines, channels, and regional flood control prevention.	Wll be considered for future planning.
d-6	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. (This strategy has the secondary benefit of addressing fuel, chemical, and cleaning product issues.)	FL		XX							Engineering & Transportation	Standard procedure as financial resources are available.
d-7	Continue maintenance efforts to keep storm drains and creeks free of obstructions, while retaining vegetation in the channel (as appropriate) to allow for the free flow of water.	FL		XX							Public Works	Storm drain system is cleared annually
d-8	Enforce provisions under creek protection, stormwater management, and discharge control ordinances designed to keep watercourses free of obstructions and to protect drainage facilities to conform with the Regional Water Quality Control Board's Best Management Practices.	FL		XX							Public Works	Standard procedure

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d-9	Develop an approach and locations for various watercourse bank protection strategies, including for example, (1) an assessment of banks to inventory areas that appear prone to failure, (2) bank stabilization, including installation of rip rap, or whatever regulatory agencies allow (3) stream bed depth management using dredging, and (4) removal of out-of-date coffer dams in rivers and tributary streams.	FL							XX		Alameda County Flood Control District	
d-10	Use reservoir sediment or reed removal as one way to increase storage for both flood control and water supply.	FL							XX		Alameda County Flood Control District	
d-11	Identify critical locally-owned bridges affected by flooding and either elevate them to increase stream flow and maintain critical ingress and egress routes or modify the channel to achieve equivalent objectives.	FL							XX		Alameda County Flood Control District	
d-12	Provide or support the mechanism to expedite the repair or replacement of levees that are vulnerable to collapse from earthquake-induced shaking or liquefaction, rodents, and other concerns, particularly those protecting critical infrastructure.	FL		XX							Engineering & Transportation	Standard procedure
d-13	Ensure that utility systems in new developments are constructed in ways that reduce or eliminate flood damage.	FL	XX								Engineering & Transportation	Standard procedure
d-14	Determine whether or not wastewater treatment plants are protected from floods, and if not, investigate the use of flood-control berms to not only protect from stream or river flooding, but also increase plant security.	FL								XX	Public Works and Engineering and Transportation	Limited funding has redirected priorities at the present time.
d-15	Work cooperatively with water agencies, flood control districts, Caltrans, and local transportation agencies to determine appropriate performance criteria for watershed analysis.	FL							XX		Alameda County Flood Control District	
d-16	Work for better cooperation among the patchwork of agencies managing flood control issues.	FL	XX								Engineering & Transportation	Standard procedure
d-17	Improve monitoring of creek and watercourse flows to predict potential for flooding downstream by working cooperatively with land owners and the cities and counties in the watershed.	FL							XX		Alameda County Flood Control District	

Infrastructure Mitigation Strategies

2009-2010 Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, underfunded	Very High - Unofficial Program- Becomes Official on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Existing Program under funded, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study), WHY if not same as regional priority, OR Other Comments
d-18	Using criteria developed by EPA for asset management, inventory existing assets, the condition of those assets, and improvements needed to protect and maintain those assets. Capture this information in a Geographic Information System (GIS) and use it to select locations for creek monitoring gauges.	FL							XX		Alameda County Flood Control District	

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INFR - e - Landslides												
e-1	Include "areas subject to ground failure" in the list of criteria used for determining a replacement schedule (along with importance, age, type of construction material, size, condition, and maintenance or repair history) for pipelines.	LS	XX								Engineering and Transportation	Standard procedure
e-2	Establish requirements in zoning ordinances to address hillside development constraints in areas of steep slopes that are likely to lead to excessive road maintenance or where roads will be difficult to maintain during winter storms due to landsliding.	LS	XX								Community Development	Standard procedure
INFR - f - Building Reoccupancy												
f-1	Ensure that critical buildings owned or leased by special districts or private utility companies participate in a program similar to San Francisco's Building Occupancy Resumption Program (BORP). The BORP program permits owners of buildings to hire qualified engineers to create facility-specific post-disaster inspection plans and allows these engineers to become automatically deputized as City/County inspectors for these buildings in the event of an earthquake or other disaster. This program allows rapid reoccupancy of the buildings. Note - A qualified engineer is a California licensed engineer with relevant experience.	EQ LS WF FL SEC	XX								Community Development	Standard procedure
INFR - g - Public Education												
g-1	Provide materials to the public related to planning for power outages.	EQ LS WF FL SEC	XX								City Manager	Standard procedure
g-2	Provide materials to the public related to family and personal planning for delays due to traffic or road closures, or due to transit system disruption caused by disasters.	EQ LS WF FL SEC								XX	City Manager	This can be considered for future planning.
g-3	Provide materials to the public related to coping with reductions in water supply or contamination of that supply BEYOND regulatory notification requirements.	EQ LS WF FL DR SEC	XX								City Manager	Standard procedure

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g-4	Provide materials to the public related to coping with disrupted storm drains, sewage lines, and wastewater treatment (such as that developed by ABAG's Sewer Smart Program).	EQ LS WF FL DR SEC	XX								City Manager	Standard procedure
g-5	Facilitate and/or coordinate the distribution of emergency preparedness or mitigation materials that are prepared by others, such as by making the use of the internet or other electronic means, or placing materials on community access channels or in city or utility newsletters, as appropriate.	EQ LS WF FL DR SEC	XX								City Manager	Standard procedure
g-6	Sponsor the formation and training of Community Emergency Response Teams (CERT) for the employees of your agency. [Note – these programs go by a variety of names in various cities and areas.]	EQ LS WF FL DR SEC		XX							City Manager	Due to budget restrictions, the establishment of CERT teams has been suspended.
g-7	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website related to infrastructure issues.	EQ LS WF FL DR SEC	XX								City Manager	Standard procedure

Health Mitigation Strategies

2009-2010 Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Priority (CHECK ONLY ONE) Blue shading reflects ABAG priority: Existing Program	Existing Program, underfunded	Very High - Unofficial Program- Becomes Official on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Existing Program under funded, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study), WHY if not same as regional priority, OR Other Comments
HEAL - a - Hospitals and Other Critical Health Care Facilities (including those facilities licensed by OSHPD, as well as water agencies, public & private hospitals as noted).												
To be filled out by cities, counties, and county health departments.												
a-1	Work to ensure that cities, counties, county health departments, and hospital operators coordinate with each other (and that hospitals cooperate with the California Office of Statewide Health Planning and Development - OSHPD) to comply with current state law that mandates that critical facilities are structurally sound and have nonstructural systems designed to remain functional following disasters by 2013. In particular, this coordination should include understanding any problems with obtaining needed funding. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ LS WF FL SEC							XX		Alameda County	
a-2	Encourage hospitals in your community to work with OSHPD to formalize arrangements with structural engineers to report to the hospital, assess damage, and determine if the buildings can be reoccupied. The program should be similar to San Francisco's Building Occupancy Resumption Program (BORP) that permits owners of buildings to hire qualified structural engineers to create building-specific post-disaster inspection plans and allows these engineers to become automatically deputized as inspectors for these buildings in the event of an earthquake or other disaster. OSHPD, rather than city/county building departments, has the authority and responsibility for the structural integrity of hospital structures. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ LS WF FL SEC							XX		Alameda County	
a-3	Ensure health care facilities are adequately prepared to care for victims with respiratory problems related to smoke and/or particulate matter inhalation. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ WF SEC							XX		Alameda County	
a-4	Ensure these health care facilities have the capacity to shut off outside air and be self-contained. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ WF SEC							XX		Alameda County	

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a-5	Ensure that hospitals and other major health care facilities have auxiliary water and power sources. RESPONSIBLE AGENCIES: Cities, counties, county health departments, water suppliers, and hospitals	EQ LS WF FL SEC							XX		Alameda County	
a-6	Work to ensure that county health departments work with health care facilities to institute isolation capacity should a need for them arise following a communicable disease epidemic. Isolation capacity varies from a section of the hospital for most communicable diseases to the entire hospital for a major pandemic flu. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ WF FL SEC							XX		Alameda County	
a-7	Develop printed materials, utilize existing materials (such as developed by FEMA, the American Red Cross, and others, including non-profit organizations), conduct workshops, and/or provide outreach encouraging employees of these critical health care facilities to have family disaster plans and conduct mitigation activities in their own homes. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ LS WF FL SEC	XX								City Manager	Standard procedure
HEAL - b - Ancillary Health-Related Facilities (including medical offices, pharmacies, free-standing or specialy clinics, etc.)												
b-1	Identify these ancillary facilities in your community. These facilities are not regulated by OSHPD in the same way as hospitals. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	EQ LS WF FL SEC							XX		Alameda County	
b-2	Encourage these facility operators to develop disaster mitigation plans. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	EQ LS WF FL SEC							XX		Alameda County	
b-3	Encourage these facility operators to create, maintain, and/or continue partnerships with local governments to develop response and business continuity plans for recovery. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	EQ LS WF FL SEC				XX					City Manager	
HEAL - Coordination Initiatives												
c-1	Designate locations for the distribution of antibiotics to large numbers of people should the need arise, as required to be included in each county's Strategic National Stockpile Plan. RESPONSIBLE AGENCIES: County Health Departments	FLU SEC							XX		Alameda County	

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c-2	Ensure that you know the Metropolitan Medical Response System (MMRS) cities in your area. Fremont, Oakland, San Francisco, and San Jose (plus Sacramento and Stockton) are the MMRS cities in or near the Bay Area. MMRS cities are provided with additional federal funds for organizing, equipping, and training groups of local fire, rescue, medical, and other emergency management personnel to respond to a mass casualty event. (The coordination among public health, medical, emergency management, coroner, EMS, fire, and law enforcement is a model for all cities and counties.) RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ LS WF FL SEC							XX		Alameda County	
c-3	Know that National Disaster Medical System (NDMS) uniformed or non-uniformed personnel are within one-to-four hours of your community. These federal resources include veterinary, mortuary, and medical personnel. Teams in or near the Bay Area are headquartered in the cities of Santa Clara and Sacramento. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	EQ LS WF FL SEC							XX		Alameda County	
c-4	Plan for hazmat related-issues due to a natural or technological disaster. Hazmat teams should utilize the State of California Department of Health Services laboratory in Richmond for confirmation of biological agents and Lawrence Livermore National Laboratory or Sandia (both in Livermore) for confirmation of radiological agents. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals.	EQ WF FL SEC							XX		Alameda County Fire	
c-5	Create discussion forums for food and health personnel (including, for example, medical professionals, veterinarians, and plant pathologists) to develop safety, security, and response strategies for food supply contamination (at the source, in processing facilities, in distribution centers, and in grocery stores). RESPONSIBLE AGENCIES: County environmental health departments	FL SEC							XX		Alameda County	

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c-6	Ensure mental health continuity of operations and disaster planning is coordinated among county departments, (including Public Health and Emergency Services), private sector mental health organizations, professional associations, and national and community-based non-profit agencies involved in supporting community mental health programs. **First**, such planning should ensure that the capability exists to provide both immediate on-site mental health support at facilities such as evacuation centers, emergency shelters, and local assistance centers, as well as to coordinate on-going mental health support during the long-term recovery process. **Second**, this planning should ensure that mental health providers, in collaboration with the county agencies responsible for providing public information, are prepared to provide consistent post-disaster stress and other mental health guidance to the public impacted by the disaster.	EQ LS WF FL SEC							XX		Alameda County	