

**DATE:** September 30, 2009

**TO:** Regional Planning Committee

**FROM:** Jeanne Perkins, Earthquake Hazards Program Consultant  
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**SUBJECT:** Status Report – Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP)

### **Recommended Action**

Following a staff presentation and questions, ABAG staff request feedback on the following specific items:

- (1) Ideas for gaining participation from additional jurisdictions not covered by other plans
- (2) Ideas for getting increased publicity for this process

### **Background**

ABAG is continuing with the process of updating the 2005 multi-jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area. This MJ-LHMP is related to, but not the same as, the regional disaster recovery planning initiative of ABAG. Approval of a MJ-LHMP by FEMA makes jurisdictions eligible for various mitigation grants through FEMA and results in the waiver of a 6.25% local match for Public Assistance dollars.

As discussed at the August 2009 RPC meeting, for the update, the list of mitigation strategies has been increased to 361 to specifically deal with climate change and recovery planning issues as they relate to mitigation. In addition, the update includes regional priorities for mitigation which were developed by consensus at a series of sub-regional workshops attended by staff from cities, counties and special districts. All of the strategies and plan documents can be found online at <http://quake.abag.ca.gov/mitigation>.

The final list of 361 mitigation strategies has been endorsed by ABAG's Executive Board. .

## Multi-Jurisdictional LHMP Summary

GOAL: To maintain and enhance a disaster-resistant region by reducing the potential loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters.

**COMMITMENTS:** *Together, the cities, counties and special districts of the San Francisco Bay Area are committed to increasing the disaster resistance of the infrastructure, health, housing, economy, government services, education, environment, and land use systems in the Bay Area.*

- 1. Infrastructure:** Bay Area transportation and utility facilities and networks are vital lifelines during and following disasters, as well as in the functioning of our region and its economy.
- 2. Health:** Bay Area facilities, networks, and systems providing care of sick and those with special needs need to be resilient after disasters for these systems will need to care for additional injured at the same time as those currently cared for are stressed.
- 3. Housing:** Bay Area residents need to have safe and disaster-resistant housing that is architecturally diverse and serves a variety of household sizes and incomes.
- 4. Economy:** Safe, disaster-resilient, and architecturally diverse downtown commercial areas, business and industrial complexes, and office buildings are essential to the overall economy of the Bay Area.
- 5. Government Services:** Bay Area city and county governments, as well as community services agencies, provide essential services during and immediately following disasters, as well as critical functions during recovery, that need to be resistant to disasters.
- 6. Education:** Safe and disaster-resistant school, education, and childcare-related facilities are critical to the safety of our children, as well as to the quality of life of Bay Area families.
- 7. Environment:** Disaster resistance needs to further environmental sustainability, reduce pollution, strengthen agriculture resiliency, and avoid hazardous material releases in the Bay Area.
- 8. Land Use:** Land use change needs to be accompanied by a respect for hazardous areas and facilities, as well as recognize the interconnected nature of the Bay Area.

This document, the multi-jurisdictional Local Hazard Mitigation Plan (MJ-LHMP) for the San Francisco Bay Area, should serve as a catalyst for a dialog on public policies needed to mitigate the natural hazards that affect the San Francisco Bay Area.

This multi-jurisdictional effort should not only maintain and enhance the disaster resistance of our region, but also fulfill the requirements of the Disaster Mitigation Act of 2000 for all local governments to develop and adopt this type of plan.

For purposes of this plan, local governments include not only the cities and counties of our region, but also special districts and other government agencies.

The chapters which follow describe the mitigation actions that can be taken to mitigate hazards and ensure these eight commitments, together with the regional priorities on taking those actions agreed upon by those local governments.

For additional information used to develop this MJ-LHMP by the Association of Bay Area Governments (ABAG), including interactive hazard mapping and risk assessment, see [quake.abag.ca.gov/mitigation](http://quake.abag.ca.gov/mitigation).

## Actively Participating Jurisdictions

The following is a list of jurisdictions that have participated in the development of this plan and have submitted a letter of commitment indicating that they are full participants in the plan. Each jurisdiction's involvement is being documented.

### LEAD AGENCY

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Association of Bay Area Governments

### ALAMEDA COUNTY

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Alameda County	Fremont	Piedmont
Alameda	Hayward	Pleasanton
Albany	Newark	San Leandro
Dublin	Oakland	Union City

### CONTRA COSTA COUNTY

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Brentwood	Hercules	Moraga
Clayton	Lafayette	Orinda
Concord	Martinez	San Pablo

### MARIN COUNTY

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Belvedere	Fairfax	Tiburon
Corte Madera	San Anselmo	

### SAN MATEO COUNTY

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San Mateo County	Daly City	San Bruno
Atherton	Foster City	San Carlos
Belmont	Hillsborough	San Mateo
Brisbane	Millbrae	South San Francisco
Burlingame	Pacifica	Woodside
Colma	Portola Valley	

### SANTA CLARA COUNTY

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Santa Clara County	Los Gatos	Palo Alto
Campbell	Monte Sereno	San Jose
Cupertino	Morgan Hill	Santa Clara
Gilroy	Mountain View	Saratoga
Los Altos		

### SOLANO COUNTY

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Solano County	Dixon	Rio Vista
Benicia	Fairfield	Vacaville

### SONOMA COUNTY

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Cloverdale	Petaluma	Sebastopol
Cotati	Rohnert Park	Sonoma
Healdsburg	Santa Rosa	Windsor

## **SCHOOL DISTRICTS**

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Chabot-Las Positas Community College District	Jefferson Unified School District	Ross School District
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## **TRANSIT AGENCIES**

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AC Transit	Golden Gate Bridge HTD	samTrans
BART	LAVTA (Wheels)	Santa Clara Valley Transit Authority
Central Contra Costa TA	MTC	Vallejo Transportation
TriDelta (ECCTA)	SF MTA (MUNI)	Water Emergency TA

## **WATER/SEWER DISTRICTS**

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Alameda County Water District	Montara Water and Sanitary District	Solano County Water Agency
Contra Costa Water District	Purissima Hills Water District	Solano Irrigation District
EBMUD	Santa Clara Valley Water District	Vallejo Sanitation and Flood Control
Mid-Peninsula Water District	Sewer Authority Mid-Coastside	Zone 7 Water Agency

## **OTHER SPECIAL DISTRICTS**

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Bethyl Island MID	East Bay Regional Parks District	Silver Creek Valley Country Club
Dublin-San Ramon Services District	San Francisquito Creek JPA	

## **Partnering Jurisdictions**

The following is a list of jurisdictions that have participated in the development of this plan, but have not submitted letters of commitment. Documentation of how each jurisdiction was involved can be found in Appendix H.

## **CITIES AND COUNTIES**

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Berkeley	Marin County (including using ABAG strategies)	San Francisco
El Cerrito	Milpitas	San Ramon
Livermore	Napa (city)	

## **FIRE DISTRICTS**

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Belmont-San Carlos Fire Department	Cordelia Fire Protection District	North County Fire Authority
Central County Fire	Livermore-Pleasanton Fire Dept.	Santa Clara County Department

## **WATER/SEWER DISTRICTS**

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Bolinas Community PUD	North Coast County Water District	San Francisco PUC
Marin Municipal Water District		

## ADDITIONAL AGENCIES, ORGANIZATIONS AND COMPANIES

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Bay Area Planning Directors Association	California Teachers Association	Silicon Valley Leadership Group
BARC-First	Earthquake Engineering Research Institute	SPUR
Bay Area CMA	Hills Emergency Forum	Structural Engineers Association of Northern California
Bay Area Council	Homebuilders Association of Northern California	Urban Habitat Program
San Francisco Bay Conservation and Development Commission	League of Women Voters Bay Area	Urban Land Institute
Cal Water	PG&E	US Coast Guard
California Geologic Survey	San Jose State University	US Geological Survey
California Preservation Foundation	San Jose Water Company	
California Seismic Safety Commission	Sierra Club	

## CITIES NOT COVERED BY ANY LHMP

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Emeryville	Ross	Los Altos Hills
Oakley	San Rafael	Sunnyvale
Pittsburg	Sausalito	Milpitas
Larkspur	East Palo Alto	Suisun City
Livermore	Half Moon Bay	Vallejo
Mill Valley	Menlo Park	
Novato	Redwood City	

## ABAG LHMP Highlights (for the agency – not the region)

### Hazard and Risk Assessment

The hazards and risks associated with the service area of ABAG (as a regional agency covering the entire 9-county Bay Area) are the same as those for the region as a whole. ABAG is a minority owner of the MetroCenter regional center. It owns no other facilities. Hazards at the MetroCenter facility are:

**Earthquake:** The MetroCenter is located 5 miles from the Hayward fault and 15 miles from the San Andreas fault. It is in the next to highest category on the ground shaking potential map and outside the zone of earthquake-induced landslides on flat ground. While the MetroCenter is not in the CGS Liquefaction Zone, it is shown as subject to liquefaction to the USGS Liquefaction Susceptibility Map. As of September 2009, the map of the tsunami inundation areas within San Francisco Bay had not been released. However, it is *not* anticipated that this facility is at risk.

**Flooding:** The MetroCenter is outside the 100-year and 500-year flood zones.

**Landsliding:** The MetroCenter is located on ground that is designated as flat land.

**Wildfire:** The wildland fire threat is moderate but the MetroCenter is located within the Wildland Urban Interface WUI-Threatened area.

**Dam Inundation:** The MetroCenter is not subject to dam-failure inundation.

**Drought:** The operations of the MetroCenter are not significantly impacted by drought conditions.

**Hazards Conclusion:** The most significant hazard to the MetroCenter is earthquake shaking.

**Risk Assessment:** The MetroCenter building, when evaluated in 2004, was determined to be a partial collapse hazard building. (GOVT-a-1)

### **Existing Mitigation Activities**

**MetroCenter Facility:** MTC applied for, and received, approximately \$3 million dollars in the form of a PDM grant from FEMA for a seismic upgrade to the MetroCenter facility. The entire project cost approximately \$5 million and was completed in 2008. (GOVT a-2; INFR a-4)

**Lead Agency – Local Hazard Mitigation Plan:** ABAG has taken the lead the lead in developing both the 2005 multi-jurisdictional Local Hazard Mitigation Plan, as well as the comprehensive update of that Plan in 2009-2010. As part of that effort, ABAG continues to look for opportunities to improve the risk assessment effort, particularly related to housing, infrastructure, and the Delta.

**Disaster Recovery Planning Initiative:** During the past two years, ABAG has been working with its Regional Planning Committee and others to assess the needs related to a regional long-term disaster recovery plan.

**Public Information Activities:** ABAG provides materials to the public related to family and business disaster preparedness and mitigation planning, largely through its website at <http://quake.abag.ca.gov>.

Most recently, ABAG has worked with the water and wastewater agencies (through its Sewer Smart Program) to develop a program related to toilet disruption.

**Efforts Related to Climate Change:** Approximately half of the greenhouse gas emissions in the Bay Area are related to transportation. Thus, the largest impact that ABAG can have on weather-related hazards, such as wildfire and flooding, is indirectly through reducing greenhouse gas emissions. Smart Growth Preamble and Policies adopted by ABAG, MTC, BAAQMD and BCDC call for retrofit of infrastructure that serves urban areas over constructing new infrastructure to serve outlying areas in an effort to reduce those emissions. (LAND f-1) ABAG is also working to encourage compact urban areas which are served by transit to reduce dependence on the automobile. Finally, ABAG is the lead agency in promoting the development of the Bay Trail, a commute and recreational trail that will loop the Bay.

### **Priorities for Future Mitigation**

**MetroCenter Facility:** RAFC is contracting with URS Engineers to prepare a Building Occupancy Recovery Program (BORP) plan for MetroCenter facility. BORP permits owners of buildings to hire qualified structural 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 critical infrastructure buildings. (INFR f-1)

ABAG is working on completing a comprehensive program to identify and mitigate problems with facility contents, architectural components, and equipment that would prevent its offices from being functional after major natural disasters (GOVT a-4).

**Recovery Planning:** While ABAG has established a framework and process for pre-event planning for post-event recovery that specifies roles, priorities, and responsibilities of various departments within its OWN organization, that process needs more work. ABAG is working to develop a more robust

continuity of operations plan that outlines the major issues and tasks that are likely to be the key elements of recovery, particularly related to computer operations (GOVT b-2, b-3, b-4, and b-5).

ABAG is also pushing for a more comprehensive long-term recovery plan for the entire region, encompassing both local governments, businesses, and the non-profit sectors.

**Climate Change Mitigation:** ABAG is working with MTC, the Bay Area Air Quality Management District, and the Bay Conservation and Development Commission (BCDC) to reduce greenhouse gas emissions through developing land use policies that reduce dependence on cars for transportation.

**Housing:** ABAG is the principal local government agency focusing on studying disaster impacts on housing. During the last five years, ABAG has helped to coordinate efforts related to encouraging cripple-wall retrofits of single family homes, as well as the mitigation of soft-story multifamily residential buildings. More funding for this effort is urgently needed.

**Infrastructure:** ABAG is in a unique position to examine the interrelationships among water, wastewater, and transportation systems related to hazards and risks. While some progress has been made on this issue during the past five years, a better understanding of this issue is critical for disaster mitigation and recovery.

**Water Resources:** ABAG, as funding allows, is working on creating more consistent and useful watershed management analysis tools (INFR d-2). In addition, ABAG, as funding allows, is working on better understanding of Delta risks and opportunities (INFR a-22).

## Next Steps

Staff will continue with this MJ-LHMP planning process. The MJ-LHMP must be submitted to FEMA this fall (probably October 22, 2009) in order to receive FEMA approval no later than April 22, 2010 when the 2005 plan expires.

This summer, local jurisdictions are focusing on determining their local mitigation priorities and holding public meetings to solicit comment relative to proposed local priorities. In addition, each participating jurisdiction will write an annex to the main plan which documents the process that they went through in the update and highlights specific mitigation actions that were taken since the adoption of the 2005 plan.

Staff will revise the ABAG existing 2005 annex that encompasses the actions and priorities within the plan for ABAG. Staff will be preparing the written text of the master plan and updating the list of critical facilities in the region exposed to hazards including facilities owned by cities, counties and special districts, as well as critical health care facilities, bridge and road structures and school campuses.

Upon FEMA approval of the entire MJ-LHMP, each jurisdiction will need to adopt the plan by council or board approval within 12 months. In addition, staff will bring the final plan to ABAG Executive Board for adoption.

As a next step in the Disaster Recovery Planning Initiative, ABAG is planning on holding a workshop-forum on **Land Use Change in the Recovery Process** at the December 2009 meeting.