

City of Brisbane Agenda Report

TO: Honorable Mayor and City Council
FROM: Fire Chief via City Manager
SUBJECT: Review of Brisbane 2009 Amended Local Hazard Mitigation Plan
DATE: Meeting of November 9, 2009

City Council Goals:

To provide public service that assures the safety of property and citizens residing, working, or visiting in Brisbane. (#9)

To promote intergovernmental opportunities that enhances services and/or reduces cost of operations and services to city residents. (#10)

Purpose:

To provide an opportunity for public notice and review of the amended plan. The city's core value of "safety" will be furthered by this item.

Recommendation:

Accept Local Hazard Mitigation Plan and receive any public comments

Background:

The City of Brisbane previously adopted a multi-jurisdictional Local Hazard Mitigation Plan (LHMP), including a Brisbane "local" Annex A. The lead agency in developing the multi-jurisdictional plan was the Association of Bay Area Governments. Adoption of such a plan is a FEMA requirement in conformance with the federal Disaster Mitigation Act of 2000.

In 2009, FEMA required an updated plan to include new hazards not in the original document. City staff from Engineering, Public Works, Planning, Building and Fire have met and reviewed the Annex A Mitigation Strategies attached. This document represents the city of Brisbane's mitigation strategies for the amended 2009 LHMP. A copy of this document will be available at Brisbane City Hall for review and public comment.

Discussion:

Failure to comply with the requirements to regularly update the city's annex was not considered due to that action's likely result of disqualifying the city from receiving federal disaster mitigation funding.

Fiscal Impact:

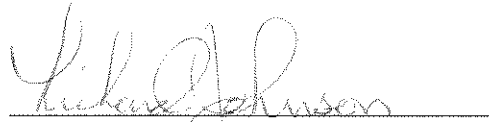
None anticipated as a direct result of receiving this report.

Measure of Success

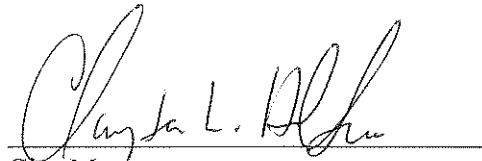
Hazard Mitigation is an ongoing component of the city's emergency management process. The city's goal is to prepare for and minimize incidents, and to make assistance available if an incident occurs.

Attachments:

Annex A Mitigation Strategies to Brisbane Local Hazard Mitigation Plan
City Council Resolution No. 2005-66
City Manager 5/27/07 letter to ABAG
FEMA's 1/11/06 approval of Brisbane's Hazard Mitigation Plan



Richard Johnson, Deputy Fire Chief for
Ron Myers, Fire Chief



City Manager

A copy of supporting materials provided to the City Manager and Council Persons in connection with this agenda item is available for public inspection and copying at 50 Park Place, City of Brisbane Department of Public Works, Brisbane, CA, 94005, Telephone: (415) 508-2130.

Infrastructure Mitigation Strategies

		Priority (CHECK ONLY ONE)										Applicable Hazards	Specific Mitigation Strategy	Original Strategy Number	2009 Strategy Code
		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 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-1	INFR - a	EQ LS WF FL SEC								Public Works	Water Vulnerability Assessment Completed Nov 2003				
a-2		EQ LS WF FL SEC	X					X			No Dams				
a-3		EQ LS WF FL SEC								BAWSCA	External Agency				
a-4		EQ LS WF FL SEC								Public Works	Crocker Tank Structural Upgrade Plan Glen Park Tank seismic upgrade design complete. Approximate costs \$2 million per tank.				
a-5		EQ LS WF FL SEC						X			Unaware of any but would support				
a-6		EQ LS WF FL DR SEC							X	San Mateo OES					

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a-7	a-7	Engage in, support, and/or encourage research by others (such as USGS, universities, or 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										Not aware of any but would support
a-8	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									DPW/OES	Fixed generators provided at City Hall/PPD & Fire Station/EOC. Portable generator and shore power connection in place at primary shelter site
a-9	a-9	(REWORDED) 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		X							Public Works	Flashing red back up installed all intersections
a-10	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										
a-11	a-11	Minimize the likelihood that power interruptions will adversely impact lifetime utility systems or critical facilities by ensuring that they have adequate back-up power.	EQ LS WF FL SEC								X	DPW	All water pump stations & secur lift stations have on site emergency power
a-12	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									Planning and Community Development, Public Works	For new development only- Chapter 17.32.030 Brisbane Municipal Code

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a-13	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							X			No Dams
a-14	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							X			
a-15	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	X						X		Fire	JPA entered into on November 10, 2003 with private ambulance provider
a-16	new	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									Fire/County Health/OES	The city's communication plan to its citizens is robust. Requiring the transit operators to have such a plan is outside our control. There is a county wide program
a-17	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	X									
a-18	new	Develop (with the participation of paratransit providers, emergency responders, and public health professionals) plans and procedures for paratransit system response and recovery from disasters.	EQ LS WF FL Heat SEC							X		Fire	Long standing JPA agreement am

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a-19	new	Coordinate with other critical infrastructure facilities to establish plans for delivery of water and wastewater treatment chemicals.	EQ LS WF FL SEC									DPW/SFPUC	The city adds a negligible amount of chemicals to its water & wastewater system. These services are provided by SFPUC.
a-20	new	Establish plans for delivery of fuel to critical infrastructure providers.	EQ LS WF FL SEC									OES	An unfunded CIP has been developed for this strategy.
a-21	new	As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems.	EQ LS WF FL SEC		X							OES	The city is presently moving towards establishing EOC capabilities in its newly remodeled City Hall, in addition to existing facilities at the Fire Station.
a-22	new	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 LHMPP, the Delta is tied to the infrastructure, water supply, and economy of the Bay Area.	EQ FL		X							San Francisco Public Utilities Commission	All the cities water is provided from San Francisco's Hetch Hetchy System
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							X		Public Works	HBRR funds acquired for Tunnel Ave. bridge

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b-2	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	X								C/CAG and TA	Measure A
b-3	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				X					Public Works	
b-4	b-4	Install specially-engineered pipelines in areas subject to faulting, liquefaction, earthquake-induced landsliding, or other earthquake hazard.	EQ					X				Public Works	
b-5	b-5	Replace or retrofit water-retention structures that are determined to be structurally deficient, including levees, dams, reservoirs and tanks.	EQ		X							Public Works	Crocker Tank structural upgrade; Glen Park seismic upgrade complete
b-6	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					X				Public Works	
b-7	b-7	Install earthquake-resistant connections when pipes enter and exit bridges and work with bridge owners to encourage retrofit of these structures.	EQ								X	Building/Planning and Community Development	Building Code/Fire Code as adopted
b-8	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	X								Building/Planning and Community Development	
b-9	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								X		

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b-10	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	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	BATA Bay Area Transit Authority	Measure A

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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	X								Public Works	Fire demand based on water master plan criteria
	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	X								NCFA	JPA entered into on November 10, 2003
	c-3	Develop a defensible space vegetation program that includes the clearing or thinning of (a) non-fire resistant 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	X								NCFA	2001 California Fire Code Brisbane ord. #477 and Brisbane Wild Fire Plan established June 2004
	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	X								Planning/Public Works	Brisbane Municipal Code Chapter 15
	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	X								Planning/Public Works Fire	Brisbane Municipal Code Chapter 15, Fire code
	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	X								Planning and Community Development/Fire	New development-Brisbane Municipal Code Titles 16 and 17 and 2001 California Fire Code as amended ord #477
	c-7	Ensure adequate fire equipment road or fire road access to developed and open space areas.	WF	X								Planning and Community Development/Fire	New development-Brisbane Municipal Code Titles 16 and 17 and 2001 California Fire Code as amended ord #477
	c-8	Maintain fire roads and/or public right-of-way roads and keep them passable at all times.	WF	X								Public Works/Fire/PD	
INFR - d - Flooding													

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d-1	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	X								Public Works	Nov 03 storm drain master plan
d-2	d-2	Develop procedures for performing a watershed analysis to look at the impact of development on flooding potential downstream, including communities outside of the jurisdiction of proposed projects.	FL	X								Public Works	C/CAG NPDES new development regulations
d-3	d-3	Conduct a watershed analysis at least once every ten years unless there is a major development in the watershed or a change in the Land Use Element of the General Plan of the cities or county within the watershed.	FL								X		
d-4	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							X			
d-5	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									Public Works	
d-6	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				X					Public Works/OM	
d-7	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	X								Public Works/OM	
d-8	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	X								Public Works-NPDES	Storm water ord Brisbane Municipal Code 13.06

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d-9	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	X								Public Works	Guadalupe channel improve
d-10	d-10	Use reservoir sediment or reed removal as one way to increase storage for both flood control and water supply.	FL						X			Public Works/Storm drain	In progress will complete as funds are available
d-11	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						X				
d-12	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							X			
d-13	d-13	Ensure that utility systems in new developments are constructed in ways that reduce or eliminate flood damage.	FL	X								Public Works	Permit Process
d-14	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 increasing plant security.	FL							X			
d-15	d-15	Work cooperatively with water agencies, flood control districts, Caltrans, and local transportation agencies to determine appropriate performance criteria for watershed analysis.	FL	X								Public Works	Information provided as requested
d-16	d-16	Work for better cooperation among the patchwork of agencies managing flood control issues.	FL	X								Public Works	Standard Procedure
d-17	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							X			

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d-18	new	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	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 Cost Effective	Not Yet Considered		No creeks within the City.

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INFR - e -	e-1	e-1	LS										
	e-2	e-2	LS	X				X				Public Works	
INFR - f -	f-1	f-1	EQ LS WF FL SEC	X								Planning and Community Development	Brisbane Municipal Code Chapter 17
												Planning and Community Development	
INFR - g -	g-1	g-1	EQ LS WF FL SEC									Public Works	PG&E Handouts available
	g-2	g-2	EQ LS WF FL SEC	X								OES	

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g-3	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	X								OES	See OES Website
g-4	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	X								OES	See Sanitation Annex to City's Emergency Operation Plan
g-5	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	X								OES	See OES Website
g-6	new	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	X								OES	
g-7	new	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								X		

Health Mitigation Strategies

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HEAL - a -		Hospitals and Other Critical Health Care Facilities (to be filled out by cities, counties, and county health departments, as well as water agencies, public & private hospitals as noted) (including those facilities licensed by OSHPD) 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 SE C	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			
a-1	a-1														
a-2	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 SE C								X				
a-3	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 SE C									X		County Public Health is responsible	
a-4	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 SE C									X			

Health Mitigation Strategies

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a-5	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 SE C								X			
a-6	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 SE C								X			
a-7	a-7	Develop printed materials, utilize existing materials (such as developed by FEMA and the American Red Cross), 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 SE C								X			
HEAL - b -		Ancillary Health-Related Facilities (including medical offices, pharmacies, free-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 SE C											
b-1	b-1	Encourage these facility operators to develop disaster mitigation plans. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	EQ LS WF FL SE C								X			
b-2	b-2	Encourage these facility operators to develop disaster mitigation plans. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	EQ LS WF FL SE C								X			

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b-3	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 SE C											
HTAL - c-	c-1	Coordination Initiatives 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 SE C	X									San Mateo OES	County EMS Plan
c-2	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 SE C	X								Fire	County EMS Plan	
c-3	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 SE C	X								County EMS Plan	County EMS Plan	

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c-4	c-4	Plan for hazard 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 SE C	X								Police/Fire/EMS	County WMD Response Plan	
c-5	d-1	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 SE C	X								County Health/EMS	County Health Responsibility	
c-6	new	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	X								County of San Mateo		
deleted	deleted	d-2 (duplicate information to c-2)									X			
deleted	deleted	d-3 (duplicate information to c-3)												
deleted	deleted	d-4 (duplicate information to c-4)												

Housing Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Priority (CHECK ONLY ONE)								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					
				Existing Program	Existing Program, underfunded	Very High - Unofficial Program, on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Applicable, 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)	Provide information upon request			
HSNG-a-1	a-1	Assist in ensuring adequate hazard disclosure by working with real estate agents to improve enforcement of real estate disclosure requirements for residential properties with regard to seven official natural hazard zones: 1) Special Flood Hazard Areas (designated by FEMA), 2) Areas of Potential Flooding from dam failure inundation, 3) Very High Fire Hazard Severity Zones, 4) Wildland Fire Zones, 5) Earthquake Fault Zones (designated under the Alquist-Priolo Earthquake Fault Zoning Act), and the 6) Liquefaction and 7) Landslide Hazard Zones (designated under the Seismic Hazard Mapping Act).	EQ LS WF FL SEC														
a-2	a-2	Create incentives for private owners of historic or architecturally significant residential buildings to undertake mitigation to levels that will minimize the likelihood that these buildings will need to be demolished after a disaster, particularly if those alterations conform to the federal Secretary of the Interior's Guidelines for Rehabilitation.	EQ LS WF FL SEC	X													
a-3	NEW Was GOVT b-4	Develop a plan for short-term sheltering of residents of your community in conjunction with the American Red Cross.	EQ LS WF FL SEC													OES	
a-4	NEW Was GOVT b-4	Develop a plan for interim housing for those displaced by working with the Regional CPGP that funded this effort in 2009. (Estimated completion is 2011.)	EQ LS WF FL SEC														OES

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HSNG-b-1	b-1	Utilize or recommend adoption of a retrofit standard that includes standard plan sets and construction details for voluntary bolting of homes to their foundations and bracing of outside walls of crawl spaces ("cripple" walls), such as Plan Set A Bay-Peninsula-Monterey Chapters of the International Code Council (ICC), California Building Officials (CALBO), the Structural Engineers Association of Northern California (SEAONC), the Northern California Chapter of the Earthquake Engineering Research Institute (EERI-NC), and ABAG's Earthquake Program.	EQ									Building/Planning & Community Development	Building Codes
b-2	b-2	Require engineered plan sets for seismic retrofit of heavy two-story homes with living areas over garages, as well as for split level homes (that is, homes not covered by Plan Set A), until standard plan sets and construction details become available.	EQ	X								Planning & Community Development	
b-3	b-3	Require engineered plan sets for seismic retrofit of homes on steep hillsides (because these homes are not covered by Plan Set A).	EQ	X								Building	
b-4	b-4	Encourage local government building inspectors to take classes on a periodic basis (such as the FEMA-developed training classes offered by ABAG) on retrofit of single-family homes, including application of Plan Set A.	EQ	X								Building	
b-5	b-5	Encourage private retrofit contractors and home inspectors doing work in your area to take retrofit classes on a periodic basis (such as the FEMA-developed training classes offered by ABAG or additional classes that might be offered by the CALBO Training Institute) on retrofit of single-family homes.	EQ	X									
b-6	b-6	Conduct demonstration projects on common existing housing types demonstrating structural and nonstructural mitigation techniques as community models for earthquake mitigation.	EQ										
b-7	b-7	Provide retrofit classes or workshops for homeowners in your community, or help promote utilization of subregional workshops in the south bay, east bay, peninsula, and north bay as such workshops become available through outreach using existing community education programs.	EQ										

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b-8	b-8	Establish tool-lending libraries with common tools needed for retrofitting for use by homeowners with appropriate training.	EQ								X		
b-9	b-9	(reworded) Provide financial incentives to owners of single-family homes to retrofit if those retrofits comply with Plan Set A or IEBC 2006 in addition to that provided by existing state law. State law that makes such retrofits exempt from increases in property taxes.	EQ								X		
HSNG - c - Soft-Story Multifamily Residential Structures Vulnerable to Earthquakes													
c-1	c-1	Require engineered plan sets for voluntary or mandatory soft-story seismic retrofits by private owners until a standard plan set and construction details become available.	EQ	X								Building	
c-2	c-2	Adopt the 2009 (changed date) International Existing Building Code or the latest applicable standard for the design of voluntary or mandatory soft-story building retrofits for use in city/county building department regulations. In addition, allow use of changes to that standard recommended by SEACQ for the 2012 IEBC.	EQ								X		
c-3	c-3	Work to educate building owners, local government staff, engineers, and contractors on privately-owned soft-story retrofit procedures and incentives using materials such as those developed by ABAG and the City of San Jose (see http://quake.abag.ca.gov/eqhouse.html .)	EQ								X		
c-4	c-4	Conduct an inventory of privately-owned existing or suspected soft-story residential structures as a first step in establishing voluntary or mandatory programs for retrofitting these buildings.	EQ	X							X		
c-5	c-5	Use the soft-story inventory to require private owners to inform all existing tenants (and prospective tenants prior to signing a lease agreement) that they may live in this type of building.	EQ								X		
c-6	c-6	Use the soft-story inventory to require private owners to inform all existing and prospective tenants that they may need to be prepared to live elsewhere following an earthquake if the building has not been retrofitted.	EQ								X		

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c-7	c-7	Investigate and adopt appropriate financial, procedural, and land use incentives (such as parking waivers) for private owners of soft-story buildings to facilitate retrofit such as those described by ABAG (see http://quake.abag.ca.gov/fixit).	EQ								X		
c-8	c-8	Explore development of State regulations or legislation to require or encourage private owners of soft-story structures to strengthen them.	EQ								X		
c-9	c-9	Provide technical assistance in seismically strengthening privately-owned soft-story structures.	EQ								X		
HSNG - d - Unreinforced Masonry Housing Stock													
d-1	d-1	Continue to actively implement existing State law that requires cities and counties to maintain lists of the addresses of unreinforced masonry buildings and inform private property owners that they own this type of hazardous structure.	EQ	X								Building/Planning & Community Development	Brisbane Municipal Code Chapter 15.60
d-2	d-2	Accelerate retrofitting of privately-owned unreinforced masonry structures that have not been retrofitted, for example, by (a) actively working with owners to obtain structural analyses of their buildings, (b) helping owners obtain retrofit funding, (c) adopting a mandatory versus voluntary, retrofit program, and/or (d) applying penalties to owners who show inadequate efforts to upgrade these buildings.	EQ								X		
d-3	d-3	Require private owners to inform all existing (and prospective tenants prior to signing a lease agreement) that they live in an unreinforced masonry building and the standard to which it may have been retrofitted.	EQ									Building/ Planning & Community Development	Brisbane Municipal Code Chapter 15.60
d-4	d-4	As required by State law, require private owners to inform all existing tenants that they may need to be prepared to live elsewhere following an earthquake even if the building has been retrofitted, for it has probably been retrofitted to a life-safety standard, not to a standard that will allow occupancy following major earthquakes.	EQ	X								Building/ Planning & Community Development	Brisbane Municipal Code Chapter 15.60

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HSNG - 8 - Other Privately-Owned Structurally Vulnerable Residential Buildings and Earthquakes													
e-1	e-1	Identify and work toward tying down mobile homes used as year-round permanent residences using an appropriate cost-sharing basis (for example, 75% grant, 25% owner).	EQ	X								Planning & Community Development	County
e-2	e-2	Inventory non-ductile concrete, tilt-up concrete (such as converted lofts), and other privately-owned potentially structurally vulnerable residential buildings.	EQ		X						X		
e-3	e-3	Adopt the 2009 International Existing Building Code or the latest applicable standard for the design of voluntary or mandatory retrofit of privately-owned seismically vulnerable buildings.	EQ	X							X		
e-4	e-4	Adopt one or more of the following strategies as incentives to encourage retrofit of privately-owned seismically vulnerable residential buildings: (a) waivers or reductions of permit fees, (b) below-market loans, (c) local tax breaks, (d) grants to cover the cost of retrofitting or of a structural analysis, (e) land use (such as parking requirement waivers) and procedural incentives, or (f) technical assistance.	EQ	X								Building	Technical assistance provided upon request
HSNG - 1 - New Construction and Earthquakes													
f-1	f-1	Continue to require that all new housing be constructed in compliance with (deleted "structural") requirements of the most recently adopted version of the <i>California Building Code</i> .	EQ	X								Building	City permitting process
f-2	f-2	Conduct appropriate employee training and support continued education to ensure enforcement of building codes and construction standards, as well as identification of typical design inadequacies of housing and recommended improvements.	EQ	X								Building	
HSNG - 9 - Wildfire and Structural Fires													
g-1	g-1	Increase efforts to reduce hazards in existing private development in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat through improving engineering design and vegetation management for mitigation, appropriate code enforcement, and public education on defensible space mitigation strategies.	WF	X								Fire	2001 California Fire Code as amended Brisbane ordinance #477
g-2	g-2	The public education on defensible space and a comprehensive defensible space ordinance to a field program of enforcement.	WF	X								Fire	2001 California Fire Code as amended Brisbane ordinance #477

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g-3	g-3	Require that new homes in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat be constructed of fire-resistant building materials (including roofing and exterior walls) and incorporate fire-resistant design features (such as minimal use of eaves, internal corners, and open first floors) to increase structural survivability and reduce ignitability. Note - See Structural Fire Prevention Field Guide for Mitigation of Wildfires at http://osfm.fire.ca.gov/structural.html .	WF	X								Building/Fire	2001 California Fire Code as amended Brisbane ordinance #477
g-4	g-4	Create or identify "model" properties showing defensible space and structural survivability in neighborhoods that are wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat.	WF	X							X		
g-5	g-5	Consider fire safety, evacuation, and emergency vehicle access when reviewing proposals to add secondary units or additional residential units in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat.	WF	X								Fire	2001 California Fire Code as amended Brisbane ordinance #477
g-6	g-6	Adopt and amend as needed updated versions of the <i>California Building and Fire Codes</i> so that optimal fire-protection standards are used in construction and renovation projects of private buildings.	WF	X								Planning & Community Development/Fire	Planning and Community Development and 2001 California Fire Code as amended Brisbane ordinance #477
g-7	g-7	Create a mechanism to enforce provisions of the <i>California Building and Fire Codes</i> and local housing codes that require the installation of smoke detectors and/or fire-extinguishing systems for privately-owned properties by making installation a condition of (a) finalizing a permit for any work on existing properties valued at over a fixed amount, such as \$500 or \$1000, and/or (b) a condition for the transfer of property if these changes are determined cost-effective strategies.	WF	X									Planning and Community Development and 2001 California Fire Code as amended Brisbane ordinance #477
g-8	g-8	Work to ensure a reliable source of water for fire suppression in rural-residential areas through the cooperative efforts of water districts, fire districts, and residents.	WF	X						X			No rural residential areas within the City

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g-9	g-9	Expand vegetation management programs in wildland-urban- interface fire-threatened communities or in areas exposed to high-to-extreme fire threat to more effectively manage the fuel load through roadside collection and chipping, mechanical fuel reduction equipment, selected harvesting, use of goats or other organic methods of fuel reduction, and selected use of controlled burning.	WF	X							Fire Department and Open Space and Ecology	2001 California Fire Code as amended Brisbane ordinance #477 and Brisbane weed abatement program along with the Wildfire Plan and Brisbane Acres Vegetation Management Program
g-10	g-11	Establish special funding mechanisms (such as Fire Hazard Abatement District or regional bond funding) to fund reduction in fire risk of existing properties through vegetation management that includes reduction of fuel loads, use of defensible space, and fuel breaks.	WF							X		
g-11	g-12	Work with residents in rural-residential areas to ensure adequate plans are developed for appropriate access and evacuation in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat. For example, in some areas, additional roads can be created, and in other areas, the communities will need to focus on early warning and evacuation because additional roads are not feasible.	WF									
g-12	g-13	Require fire sprinklers in new homes located more than 1.5 miles or a 5-minute response time from a fire station or in an identified high hazard wildland-urban-interface wildfire area.	WF	X								2001 California Fire Code as amended
g-13	g-14	Require fire sprinklers in all new or substantially remodeled multifamily housing, regardless of distance from a fire station.	WF	X								2001 California Fire Code as amended
g-14	g-15	Require sprinklers in all mixed use development to protect residential uses from fires started in non-residential areas.	WF	X								2001 California Fire Code as amended
g-15	g-16	Compile a list of privately-owned high-rise and high-occupancy buildings which are deemed, due to their age or construction materials, to be particularly susceptible to fire hazards, and determine an expeditious timeline for the fire-safety inspection of all such structures.	WF									81 oldest building
g-16	g-17	Conduct periodic fire-safety inspections of all multi-family buildings, as required by State law.	WF	X					X			North County Fire Authority Fire Prevention Program

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g-17	g-18	Ensure that city/county-initiated fire-preventive vegetation-management techniques and practices for creek sides and high-slope areas do not contribute to the landslide and erosion hazard. For example, vegetation in these sensitive areas could be thinned, rather than removed, or replanted with less flammable materials. When thinning, the non-native species should be removed first. Other options would be to use structural mitigation, rather than vegetation management in the most sensitive areas.	WF LS		X								2001 California Fire Code as amended and vegetation management plan along with the Brisbane Wildfire plan with Public Works NPDES
g-18	g-19	Create a mechanism to require the bracing of water heaters and flexible couplings on gas appliances, and/or (as specified under "a. Single-family homes vulnerable to earthquakes" above) the bolting of homes to their foundations and strengthening of cripple walls to reduce fire ignitions due to earthquakes.	EQ WF								X		
g-19	g-20	Work with the State Fire Marshal, the California Seismic Safety, PEER, and other experts to identify and manage gas-related fire risks of soft-story residential or mixed use buildings that are prone to collapse and occupant entrapment consistent with the natural gas safety recommendations of Seismic Safety Commission Report SSC-02-03. Note - See http://www.seismic.ca.gov/pub/CSSC_2002_03_Natural%20Gas%20Safety.pdf . Also note - any valves that are installed may need to have both excess flow and seismic triggers ("hybrid" valves).	EQ WF										Brisbane Ordinance requiring retrofit with % of remodel or addition
g-20	new	Ensure that city/county-initiated fire-preventive vegetation-management techniques and practices for creek sides and high-slope areas do not contribute to the landslide and erosion hazard.	WF								X		A consideration when conducting vegetation management
g-21	new	Work with insurance companies to create a public/private partnership to give a discount on fire insurance premiums to "Forester Certified" Fire Wise landscaping and fire-resistant building materials on private property.	WF										
HSNG - n - Flooding											X		

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h-1	h-1	To reduce flood risk, thereby reducing the cost of flood insurance to private property owners, work to qualify for the highest-feasible rating under the Community Rating System of the National Flood Insurance Program.	FL									Public Works	FIRM map revisions as storm drain capital projects built
h-2	h-2	Balance the housing needs of residents against the risk from potential flood-related hazards.	FL							X			No residential areas within designated flood zone A
h-3	h-3	Ensure that new private development pays its fair share of improvements to the storm drainage system necessary to accommodate increased flows from the development. or does not increase runoff by draining water to pervious areas or detention facilities.	FL							X		Planning/Public Works	City permitting process
h-4	h-4	Provide sandbags and plastic sheeting to residents in anticipation of rainstorms, and deliver those materials to vulnerable populations upon request.	FL	X								Public Works/O&M	Available at city hall for citizen use
h-5	h-5	Provide public information on locations for obtaining sandbags and/or deliver those sandbags to those various locations throughout a city and/or county prior to and/or during the rainy season.	FL	X								Public Works/O&M	Posted on community bulletin board
h-6	h-6	Apply floodplain management regulations for private development in the floodplain and floodway.	FL	X								Planning & Community Development	Brisbane Municipal Code Title 15.56
h-7	h-7	Ensure that new subdivisions are designed to reduce or eliminate flood damage by requiring lots and rights-of-way are laid out for the provision of approved sewer and drainage facilities, providing on-site detention facilities whenever practicable.	FL	X								Planning/Public Works	Brisbane Municipal Code Title 16
h-8	h-8	Encourage home and apartment owners to participate in home elevation programs within flood hazard areas.	FL							X			
h-9	h-9	As funding opportunities become available, encourage home and apartment owners to participate in acquisition and relocation programs for areas within floodways.	FL							X			
h-10	h-10	Encourage owners of properties in a floodplain to consider purchasing flood insurance. For example, point out that most homeowners' insurance policies do not cover a property for flood damage.	FL							X			

Housing Mitigation Strategies

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HSNG - 1-1	<p>Landslides and Erosion</p> <p>1-1 Increase efforts to reduce landslides and erosion in existing and future development by improving appropriate code enforcement and use of applicable standards for private property, such as those appearing in the <i>California Building Code</i>, <i>California Geological Survey Special Report 117 - Guidelines for Evaluating and Mitigating Seismic Hazards in California</i>, <i>American Society of Civil Engineers (ASCE) report Recommended Procedures for Implementation of DMG Special Publication 117: Guidelines for Analyzing and Mitigating Landslide Hazards in California</i>, and the <i>California Board for Geologists and Geophysicists Guidelines for Engineering Geologic Reports</i>. Such standards should cover excavation, fill placement, cut-fill transitions, slope stability, drainage and erosion control, slope setbacks, expansive soils, collapsible soils, environmental issues, geological and geotechnical investigations, grading plans and specifications, protection of adjacent properties, and review and permit issuance.</p>	LS	X								Planning/Building/Public Works	Brisbane Municipal Code Chapter 15.01
i-2	1-2 Increase efforts to reduce landslides and erosion in existing and future private development through continuing education of design professionals on mitigation strategies.	LS		X								

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HSNG - j	j-1	Develop and enforce a repair and reconstruction ordinance to ensure that damaged buildings are repaired in an appropriate and timely manner and retrofitted concurrently. This repair and reconstruction ordinance should apply to all public and private buildings, and also apply to repair of all damage, regardless of cause. See http://quake.abag.ca.gov/recovery/info-repair-ord.html .	EQ LS WF FL SEC	X								Planning/ Building	Brisbane Municipal Code Chapter 15.41
HSNG - j	j-2	Establish preservation-sensitive measures for the repair and reoccupancy of historically significant privately-owned structures, including requirements for temporary shoring or stabilization where needed, arrangements for consulting with preservationists, and expedited permit procedures for suitable repair or rebuilding of historically or architecturally valuable structures.	EQ LS WF FL SEC								X		
HSNG - k	k-1	Provide information to residents of your community on the availability of interactive hazard maps showing your community on ABAG's web site.	EQ LS WF FL SEC	X								Planning	Link on City website
	k-2	Develop printed materials, utilize existing materials (such as developed by FEMA and the American Red Cross), conduct workshops, and/or provide outreach encouraging residents to have family disaster plans that include drop-cover-hold earthquake drills, fire and storm evacuation procedures, and shelter-in-place emergency guidelines.	EQ LS WF FL SEC	X								Fire	Brisbane Wildfire brochure
	k-3	Inform residents of comprehensive mitigation activities, including elevation of appliances above expected flood levels, use of fire-resistant roofing and defensible space in high wildfire threat and wildfire-urban-interface areas, structural retrofitting techniques for older homes, and use of intelligent grading practices through workshops, publications, and media announcements and events.	EQ LS WF FL SEC								X		Brisbane Wildfire plan
	k-4	Develop a public education campaign on the cost, risk, and benefits of earthquake, flood, and other hazard insurance as compared to mitigation.	EQ LS FL SEC								X		

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k-5	k-5	Use disaster anniversaries, such as April (the 1906 earthquake), September (9/11), and October (Loma Prieta earthquake and Oakland Hills fire), to remind the public on safety and security mitigation activities.	EQ LS WF FL SEC	X								Fire	Resolution in April City Council and CEV program in Brisbane
k-6	k-6	Sponsor the formation and training of Community Emergency Response Teams (CERT) training for residents in your community. [Note – these programs go by a variety of names in various cities and areas.]	EQ LS WF FL SEC	X								Fire	CEV program in Brisbane
k-7	k-7	Include flood fighting technique session based on California Department of Water Resources training to the list of available public training classes offered by CERT.	FL								X		
k-8	k-8	Institute the neighborhood watch block captain and team programs outlined in the Citizen Corps program guide.	EQ LS WF FL SEC	X								Fire	CEV program in Brisbane
k-9	k-9	Assist residents in the development of defensible space through the use of, for example, "tool libraries" for weed abatement tools, roadside collection and/or chipping services for brush, weeds, and tree branches) in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat.	WF	X								Fire	Brisbane Wildfire brochure
k-10	k-10	Train homeowners to locate and shut off gas valves if they smell or hear gas leaking.	EQ LS WF FL SEC	X								Fire	Public education and CEV program
k-11	k-12	Develop a program to provide at-cost NOAA weather radios to residents of flood hazard areas that request them, with priority to neighborhood watch captains and others trained in their use.	FL										No housing within flood zones
k-12	k-13	Make use of the materials on the ABAG web site at http://quake.abag.ca.gov/fixit and other web sites to increase residential mitigation activities related to earthquakes. (ABAG plans to continue to improve the quality of those materials over time.)	EQ	X							X	Planning & Community Development	Link on City website
k-13	k-14	Develop a "Maintain-a-Drain" campaign, similar to that of the City of Oakland, encouraging private businesses and residents to keep storm drains in their neighborhood free of debris.	FL	X							X	Public Works NPDES	

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k-14	k-15	Encourage the formation of a community- and neighborhood-based approach to wildfire education and action through local Fire Safe Councils and the <i>Fire Wise Program</i> . This effort is important because grant funds are currently available to offset costs of specific council-supported projects.	WF										
k-15	k-16	Inform shoreline-property owners of the possible long-term economic threat posed by rising sea levels.	FL										
k-16	k-17	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website.	EQ LS WF FL SEC										
deleted	9-10	DELETED - REPLACED BY DISCUSSION OF REVERSE 911 in GOVT c-14.											
deleted	k-11												

Economy Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Priority (CHECK ONLY ONE)							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	
				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, or Not Appropriate, or Not Cost Effective			Not Yet Considered
ECON - a	a-1	Assist in ensuring adequate hazard disclosure by working with real estate agents to improve enforcement of real estate disclosure requirements for commercial and industrial properties with regard to seven official natural hazard zones: 1) Special Flood Hazard Areas (designated by FEMA), 2) Areas of Potential Flooding from dam failure inundation, 3) Very High Fire Hazard Severity Zones, 4) Wildland Fire Zones, 5) Earthquake Fault Zones (designated under the Alquist-Priolo Earthquake Fault Zoning Act), and the 6) Liquefaction and 7) Landslide Hazard Zones (designated under the Seismic Hazard Mapping Act).	EQ LS WF FL SEC									provide information upon request	
a-2	a-2	Create incentives for private owners of historic or architecturally significant commercial and industrial buildings to undertake mitigation to levels that will minimize the likelihood that these buildings will need to be demolished after a disaster, particularly if those alterations conform to the federal Secretary of the Interior's <i>Guidelines for Rehabilitation</i> .	EQ LS WF FL SEC										
ECUN - b	b-1	Require engineered plan sets for voluntary or mandatory soft-story seismic retrofits by private owners until a standard plan set and construction details become available.	EQ										Permit Process CBC
b-2	b-2	Adopt the 2008 (charged date) International Existing Building Code or the latest applicable standard for the design of voluntary or mandatory soft-story building retrofits for use in city/county building department regulations. In addition, allow use of changes to that standard recommended by SEAOC for the 2012 IEBC.	EQ										Building/Planning & Community Development Building/Planning & Community Development
b-3	b-3	Work to educate building owners, local government staff, engineers, and contractors on privately-owned soft-story retrofit procedures and incentives using materials such as those developed by ABAG and the City of San Jose (see http://quake.abag.ca.gov/eqhouse.html).	EQ										
b-4	b-4	Conduct an inventory of privately-owned existing or suspected soft-story commercial or industrial structures as a first step in establishing voluntary or mandatory programs for retrofitting these buildings.	EQ										

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b-9	b-5	Use the soft-story inventory to require private owners to inform all existing tenants (and prospective tenants prior to signing a lease agreement) that they may work in this type of building.	EQ								X			
b-9	b-6	Use the soft-story inventory to require private owners to inform all existing and prospective tenants that they may need to be prepared to work elsewhere following an earthquake if the building has not been retrofitted.	EQ								X			
b-7	b-7	Investigate and adopt appropriate financial, procedural, and land use incentives (such as parking waivers) for private owners of soft-story buildings to facilitate retrofit such as those described by ABAG (see http://quake.abag.ca.gov/fixit).	EQ								X			
b-8	b-8	(reworded) Explore development of State regulations or legislation to require or encourage private owners of soft-story structures to strengthen them.	EQ								X			
b-9	b-9	Provide technical assistance in seismically strengthening privately-owned soft-story structures.	EQ								X			

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ECON - c - Unreinforced Masonry Buildings in Older Downtown Areas														
c-1	c-1	Continue to actively implement existing State law that requires cities and counties to maintain lists of the addresses of unreinforced masonry buildings and inform private property owners that they own this type of hazardous structure.	EQ	X									Planning & Community Development	Brisbane Municipal Code Chapter 15.60
c-2	c-2	Accelerate retrofitting of privately-owned unreinforced masonry structures that have not been retrofitted, for example, by (a) actively working with owners to obtain structural analyses of their buildings, (b) helping owners obtain retrofit funding, (c) adopting a mandatory versus voluntary retrofit program, and/or (d) applying penalties to owners who show inadequate efforts to upgrade these buildings.	EQ	X									Planning & Community Development	
c-3	c-3	Require private owners to inform all existing (and prospective tenants prior to signing a lease agreement) that they work in an unreinforced masonry building and the standard to which it may have been retrofitted.	EQ	X									Building/Planning & Community Development	Buildings posted
c-4	c-4	As required by State law, require private owners to inform all existing tenants that they may need to be prepared to work elsewhere following an earthquake even if the building has been retrofitted, for it has probably been retrofitted to a life-safety standard, not to a standard that will allow occupancy following major earthquakes.	EQ	X									Building/Planning & Community Development	Buildings posted
ECON - d - Privately-Owned Structurally Vulnerable Buildings														
d-1	d-1	Inventory non-ductile concrete, tilt-up concrete, and other privately-owned structurally vulnerable buildings.	EQ									X		
d-2	d-2	Adopt the 2009 International Existing Building Code or the latest applicable standard for the design of voluntary or mandatory retrofit of privately-owned seismically vulnerable buildings.	EQ	X										
d-3	d-3	Adopt one or more of the following strategies as incentives to encourage retrofitting of privately-owned seismically vulnerable commercial and industrial buildings: (a) waivers or reductions of permit fees, (b) below-market loans, (c) local tax breaks, (d) grants to cover the cost of retrofitting or of a structural analysis, (e) land use (such as parking requirement waivers) and procedural incentives, or (f) technical assistance.	EQ	X									Planning & Community Development	Tech Only
ECON - e - Wildfire and Structural Fires														

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e-1	e-1	Increase efforts to reduce hazards in existing private development in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat through improving engineering design and vegetation management for mitigation, appropriate code enforcement, and public education on defensible space mitigation strategies.	WF	X									Fire	Wildfire Program
e-2	new	Tie public education on defensible space and a comprehensive defensible space ordinance to a field program of enforcement.	WF								X		Fire	We have a public education program and literature which is distributed. The interface abuts HCP 1 and environmentally sensitive lands and only minimal defensible space is available. The remainder of the community is suburban.
e-3	e-2	Require that new privately-owned business and office buildings in high fire hazard areas be constructed of fire-resistant building materials and incorporate fire-resistant design features (such as minimal use of eaves, internal corners, and open first floors) to increase structural survivability and reduce ignitability.	WF								X			
e-4	e-3	Adopt and amend as needed updated versions of the California Building and Fire Codes so that optimal fire-protection standards are used in construction and renovation projects of private buildings.	WF										Fire	2001 California Fire Code as amended
e-5	e-4	Create a mechanism to enforce provisions of the California Building and Fire Codes and other local codes that require the installation of smoke detectors and fire-extinguishing systems by making installation a condition of (a) finalizing a permit for any work on existing privately-owned properties valued at over a fixed amount, such as \$500 or \$1,000, and/or (b) on any building over 75 feet in height, and/or (c) as a condition for the transfer of property.	WF	X									Fire	2001 California Fire Code as amended and Fire Prevention Inspection Program

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e-5	e-5	(reworded to more closely match the HSN strategy) Expand vegetation management programs in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat to more effectively manage the fuel load through roadside collection and chipping, mechanical fuel reduction equipment, selected harvesting, use of goats or other organic methods of fuel reduction, and selected use of controlled burning.	WF	X								Fire	
e-6	e-6	Establish special funding mechanisms (such as Fire Hazard Abatement District or regional bond funding) to fund reduction in fire risk of existing properties through vegetation management that includes reduction of fuel loads, use of defensible space, and fuel breaks.	WF								X		
e-7	e-7	Establish special funding mechanisms (such as Fire Hazard Abatement District or regional bond funding) to fund fire-safety inspections of private properties, roving firefighter patrols on high fire-hazard days, and public education efforts.	WF								X		
e-8	e-8	Compile a list of privately-owned high-rise and high-occupancy buildings that are deemed, due to their age or construction materials, to be particularly susceptible to fire hazards, and determine an expeditious timeline for the fire-safety inspection of all such structures.	WF								X		
e-9	e-9	Conduct periodic fire-safety inspections of all privately-owned commercial and industrial buildings.	WF	X								Fire	Fire Inspection Program all occupancies inspected once a year.
e-10	e-10	Work with the State Fire Marshall, the California Seismic Safety, PEER, and other experts to identify and manage gas-related fire risks of privately-owned soft-story mixed use buildings that are prone to collapse and occupant entrapment consistent with the natural gas safety recommendations of Seismic Safety Commission Report SSC-02-03.	EQ WF									Fire	Participation in County and State Fire Prevention organizations
e-11	e-11	Note - See http://www.seismic.ca.gov/pub/CSSC_2002-03_Natural%20Gas%20Safety.pdf . Also note - any values that are installed may need to have both excess flow and seismic triggers ("hybrid" valves).	WF	X									
e-12	e-12	Ensure that city/county-initiated fire-preventive vegetation-management techniques and practices for creek sides and high-slope areas do not contribute to the landslide and erosion hazard.	WF	X								Fire	2001 California Fire Code as amended; Weed abatement and Brisbane Wildfire Plan

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e-13	e-12	Work with insurance companies to create a public/private partnership to give a discount on fire insurance premiums to "Forester Certified" Fire Wise landscaping and fire-resistant building materials on private property.	WF									X		
ECON - f - Flooding														
f-1	f-1	To reduce flood risk, thereby reducing the cost of flood insurance to private property owners, work to qualify for the highest-feasible rating under the Community Rating System of the National Flood Insurance Program.	FL						X					
f-2	f-2	Balance the needs for private commercial and industrial development against the risk from potential flood-related hazards.	FL										Planning & Community Development	CEQA review of discretionary applications
f-3	f-3	Ensure that new private development pays its fair share of improvements to the storm drainage system necessary to accommodate increased flows from the development, or does not increase runoff by draining water to pervious areas or detention facilities.	FL										Planning & Community Development	
f-4	f-4	Provide sandbags and plastic sheeting to private businesses in anticipation of rainstorms, and deliver those materials to vulnerable populations upon request.	FL							X			Public Works	There are no residential dwellings within a flood zone
f-5	f-5	Provide information to private business on locations for obtaining sandbags and deliver those sandbags to those various locations throughout a city and/or county.	FL							X			Public Works	Filled sandbags are available for pick up by businesses and private citizens
f-6	f-6	Apply floodplain management regulations for private development in the floodplain and floodway.	FL										Planning & Community Development	Brisbane Municipal Code Title 15.56
f-7	f-7	Encourage private business owners to participate in building elevation programs within flood hazard areas.	FL									X		
f-8	f-8	As funding becomes available, encourage private business owners to participate in acquisition and relocation programs for areas within floodways.	FL									X		
f-9	f-9	Require an annual inspection of approved flood-proofed privately-owned buildings to ensure that (a) all flood-proofing components will operate properly under flood conditions and (b) all responsible personnel are aware of their duties and responsibilities as described in their building's Flood Emergency Operation Plan and Inspection & Maintenance Plan.	FL									X		

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ECON - g - 1	g-1	Landslides and Erosion Increase efforts to reduce landslides and erosion in existing and future development by improving appropriate code enforcement and use of applicable standards for private property, such as those appearing in the California Building Code, California Geological Survey Special Report 117 – Guidelines for Evaluating and Mitigating Seismic Hazards in California, American Society of Civil Engineers (ASCE) report Recommended Procedures for Implementation of DMG Special Publication 117: Guidelines for Analyzing and Mitigating Landslide Hazards in California, and the California Board for Geologists and Geophysicists Guidelines for Engineering Geologic Reports. Such standards should cover excavation, fill placement, cut-fill transitions, slope stability, drainage and erosion control, slope setbacks, expansive soils, collapsible soils, environmental issues, geological and geotechnical investigations, grading plans and specifications, protection of adjacent properties, and review and permit issuance.	LS	X									Public Works/Building/Planning & Community Development	Permit Process/Code Enforcement
ECON - g - 2	g-2	Increase efforts to reduce landslides and erosion in existing and future private development through continuing education of design professionals on mitigation strategies.	LS		X					X				
ECON - h - 1	h-1	New Construction and Earthquakes Continue to require that all new privately-owned commercial and industrial buildings be constructed in compliance with (deleted "structural") requirements of the most recently adopted version of the California Building Code.	EQ	X									Building	permit process
ECON - h - 2	h-2	Conduct appropriate employee training and support continued education to ensure enforcement of construction standards for private development.	EQ	X										
ECON - h - 3	h-3	Work with private building owners to help them recognize that many strategies that increase earthquake resistance also decrease damage in an explosion. In addition, recognize that ventilation systems can be designed to contain airborne biological agents.	EQ SEC		X							X		

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ECON - i - 1-1	i-1	Institute an aggressive program to encourage owners of private buildings to participate in a program similar to San Francisco's Building Occupancy Resumption Program (BORP). This program permits owners of private buildings to hire qualified structural engineers to create building-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.	EQ LS WF FL SEC	Existing Program										
ECON - i - 1-2	i-2	Actively notify owners of historic or architecturally significant buildings of the availability of the local BORP-type program and encourage them to participate to ensure that appropriately qualified structural engineers are inspecting their privately-owned buildings, thus reducing the likelihood that the buildings will be inappropriately evaluated following a disaster.	EQ LS WF FL SEC									X		
ECON - i - 1-3	i-3	Actively notify owners of educational facility buildings of the availability of the local BORP-type program and encourage them to participate to ensure that appropriately qualified structural engineers are inspecting their buildings, thus reducing the likelihood that the buildings will be inappropriately evaluated following a disaster.	EQ LS WF FL SEC									X		
ECON - i - 1-4	i-4	Allow private building owners to participate in a BORP-type program as described above, but not actively encourage them to do so.	EQ LS WF FL SEC									X		
ECON - i - 1-5	i-5	Develop and enforce a repair and reconstruction ordinance to ensure that damaged buildings are repaired in an appropriate and timely manner and retrofitted concurrently. This repair and	EQ LS WF FL SEC										Building/Planning	
ECON - i - 1-6	i-6	Establish preservation-sensitive measures for the repair and reoccupancy of historically significant privately-owned structures, including requirements for temporary shoring or stabilization where needed, arrangements for consulting with preservationists, and expedited permit procedures for suitable repair or rebuilding of historically or architecturally valuable structures.	EQ LS WF FL SEC									X		
ECON - j -		Public Education												

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j-1	j-1	Provide information to private business owners and their employees on the availability of interactive hazard maps on ABAG's web site.	EQ LS WF FL SEC	X									Planning	Link on City website
j-2	j-2	Develop printed materials, utilize existing materials (such as developed by FEMA and the American Red Cross), conduct workshops, and/or provide outreach encouraging private businesses employees to have family disaster plans that include drop-cover-hold earthquake drills, fire and storm evacuation procedures, and shelter-in-place emergency guidelines.	EQ LS WF FL SEC	X										Wildfire Plan, Fire Public education and Earthquake programs
j-3	j-3	Develop and print materials, conduct workshops, and provide outreach to Bay Area private businesses focusing on business continuity planning.	EQ LS WF FL SEC									X		
j-4	j-4	Inform Bay Area private business owners of mitigation activities, including elevation of appliances above expected flood levels, use of fire-resistant roofing and defensible space in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat, structural retrofitting techniques for older buildings, and use of intelligent grading practices through workshops, publications, and media announcements and events.	WF FL											
j-5	j-5	Sponsor the formation and training of Community Emergency Response Teams (CERT) training for other than your own employees through partnerships with local private businesses. [Note - these programs go by a variety of names in various cities and areas.]	EQ LS WF FL SEC									X	City/OES	
j-6	j-6	Assist private businesses in the development of defensible space through the use of, for example, "tool libraries" for weed abatement tools, roadside collection and/or chipping services (for brush, weeds, and tree branches) in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat.	WF	X										
j-7	j-7	Make use of the materials developed by others (such as found on ABAG's web site at http://quake.abag.ca.gov/business) to increase mitigation activities related to earthquakes by groups other than your own agency. ABAG plans to continue to improve the quality of those materials over time.	EQ										Planning	Link on City website

Economy Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, undervalued	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
J-8	J-8	Develop a "Maintain-a-Drain" campaign, similar to that of the City of Oakland, encouraging private businesses and residents to keep storm drains in their neighborhood free of debris.	FL	X									Public Works	
J-9	J-9	Encourage the formation of a community- and neighborhood-based approach to wildfire education and action through local Fire Safe Councils and the Fire Wise Program. This effort is important because grant funds are currently available to offset costs of specific council-supported projects.	WF											
J-10	J-10	Encourage private businesses and laboratories handling hazardous materials or pathogens increase security to a level high enough to create a deterrent to crime and terrorism, including active implementation of "cradle-to-grave" tracking systems.	SEC EQ	X								X	Police Department	Permit review process
J-11	J-11	Encourage joint meetings of security and operations personnel at major private employers to develop innovative ways for these personnel to work together to increase safety and security.	SEC EQ									X		
J-12	J-12	Inform private shoreline-property owners of the possible long-term economic threat posed by rising sea levels.	FL									X		
J-13	J-13	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website, for private business owners.	EQ LS WF FL SEC							X				December-06

Government Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Priority (CHECK ONLY ONE)										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			
				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, or Not Appropriate, or Not Cost Effective	Not Yet Considered	Not Yet Considered	Not Yet Considered					
GOVT - a	a-1	Focus on Critical Facilities (... Owned by the Local Government Filing Out This Form)	EQ LS WF FL															
a-1	a-1	Assess the vulnerability of critical facilities (such as city halls, fire stations, operations and communications headquarters, community service centers, seaports, and airports) to damage in natural disasters and make recommendations for appropriate mitigation.	EQ LS WF FL	X														
a-2	a-2	Retrofit or replace critical facilities that are shown to be vulnerable to damage in natural disasters.	EQ LS WF FL SEC															City Hall remodel completed Nov. 2008
a-3	a-3	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	X														Brisbane IAPP
a-4	a-4	Conduct comprehensive programs to identify and mitigate problems with facility contents, architectural components, and equipment that will prevent critical buildings from being functional after major natural disasters. Such contents and equipment includes computers and servers, phones, files, and other tools used by staff to conduct daily business.	EQ LS WF FL SEC	X														City Hall remodel under design Possible FEMA Grant
a-5	a-5	Encourage joint meetings of security and operations personnel at critical facilities to develop innovative ways for these personnel to work together to increase safety and security.	EQ LS WF FL SEC	X														Public Works/Planning & Community Development
a-6	a-6	When installing micro and/or surveillance cameras around critical public assets tied to web-based software, and develop a surveillance protocol to monitor these cameras, investigate the possibility of using the cameras for the secondary purpose of post-disaster damage assessment.	EQ LS WF FL SEC															Emergency Management
a-7	a-7	Identify and undertake cost-effective retrofit measures related to security on critical facilities (such as moving and redesigning air intake vents and installing blast-resistant features) when these buildings undergo major renovations related to other natural hazards.	EQ LS WF FL SEC															Developing water facilities surveillance video for Brisbane Police Department and on going employee training

Government Mitigation Strategies

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a-8	a-8	Coordinate 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.	EQ LS WF FL SEC											
a-9	a-9	As a secondary focus, assess the vulnerability of non-critical facilities to damage in natural disasters based on occupancy and structural type, make recommendations on priorities for structural improvements or occupancy reductions, and identify potential funding mechanisms.	EQ LS WF FL SEC								X			No Dams
a-10	a-10	Ensure that government-owned facilities comply with and are subject to the same or more stringent regulations as imposed on privately-owned development.	EQ LS WF FL SEC	X										Building Code
a-11	a-11	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 government-owned facilities.	EQ LS WF FL SEC	X										Building Code
a-12	a-12	Prior to acquisition of property to be used as a critical facility, conduct a study to ensure the absence of significant structural hazards and hazards associated with the building site.	EQ LS WF FL SEC	X										Standard Procedure
a-13	new	Ensure that any regulations imposed on private-owned businesses (see "Economy Section") are enforced and imposed on local government's own buildings and structures.	EQ LS WF FL SEC	X										
GOVT - b - Maintain and Enhance Local Government's Emergency Recovery Planning														
b-1	b-1	Establish a framework and process for pre-event planning for post-event recovery that specifies roles, priorities, and responsibilities of various departments within the local government organization, and that outlines a structure and process for policy-making involving elected officials and appointed advisory committees.	EQ LS WF FL SEC										OES	Disaster Recovery Plan is scheduled for completion Fall/Winter 2009
b-2	b-2	Prepare a basic Recovery Plan that outlines the major issues and tasks that are likely to be the key elements of community recovery, as well as integrate this planning into response planning (such as with continuity of operations plans).	EQ LS WF FL SEC	X									OES	Disaster Recovery Plan is scheduled for completion Fall/Winter 2009

Government Mitigation Strategies

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b-3	b-3	Establish a goal for the resumption of local government services that may vary from function to function.	EQ LS WF FL SEC	X									OES	Disaster Recovery Plan is scheduled for completion Fall/Winter 2009
b-4	b-25	Develop a continuity of operations plan that includes back-up storage of vital records, such as plans and back-up procedures to pay employees and vendors if normal finance department operations are disrupted, as well as other essential electronic files.	EQ LS WF FL SEC		X								Finance/OES	
b-5	new	Plans should be made for the emergency relocation of government-owned facilities critical to recovery, as well as any facilities with known structural deficiencies or in hazardous areas.	EQ LS WF FL SEC	X									OES/Public Works	Primary and Alternate EOC locations are under development. Both facilities have recently been remodeled.
GOVT - c - Maintain and Enhance Local Government's Emergency Response Capacity														
c-1	new (old b-4 move d to H-SNG a-3)	Develop a plan for short-term and intermediate-term sheltering of your employees.	EQ LS WF FL SEC										OES	Short-term sheltering of EOC staff has already been developed.
c-2	new	Encourage your employees to have a family disaster plan.	EQ LS WF FL SEC							X			OES	
c-3	new	Offer CERT/NERT-type training to your employees.	EQ LS WF FL SEC	X									OES	
c-4	b-5 (a)	Periodically assess the need for new or relocated fire or police stations and other emergency facilities.	EQ LS WF FL SEC	X									OES	
c-5	b-5 (b)	Periodically assess the need for changes in staffing levels, and additional or updated supplies, equipment, technologies, and in-service training classes.	EQ LS WF FL SEC	X									OES/Public Works	
c-6	b-6	Ensure that fire, police, and other emergency personnel have adequate radios, breathing apparatuses, protective gear, and other equipment to respond to a major disaster.	EQ LS WF FL SEC	X									Emergency Management	Annual Emergency Plan maintenance/training/exercises in coordination with County OES

Government Mitigation Strategies

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c-7	b-7	Participate in developing and maintaining a system of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies.	EQ LS WF FL SEC						X				Emergency Management	Annual Emergency Plan maintenance/training/exercises in coordination with County OES
c-8	b-8	Harden emergency response communications, including, for example, building redundant capacity into public safety alerting and/or answering points, replacing or hardening microwave and simulcast systems, adding digital encryption for programmable radios, and ensuring a plug-and-play capability for amateur radio.	EQ LS WF FL SEC										County Comm.	
c-9	b-9	Purchase command vehicles for use as mobile command/EOC vehicles if current vehicles are unsuitable or inadequate.	EQ LS WF FL SEC	X										
c-10	b-10	Maintain the local government's emergency operations center in a fully functional state of readiness.	EQ LS WF FL SEC	X					X				Emergency Management	Annual Emergency Plan maintenance/training/exercises in coordination with County OES
c-11	b-11	Expand or participate in expanding traditional disaster exercises involving city and county emergency personnel to include airport and port personnel, transit and infrastructure providers, hospitals, schools, park districts, and major employers.	EQ LS WF FL SEC	X									Emergency Management	Annual Emergency Plan maintenance/training/exercises in coordination with County OES
c-12	b-12	Maintain and update as necessary the local government's Standardized Emergency Management System (SEMS) Plan and the National Incident Management System (NIMS) Plan, and submit an appropriate NIMSCAST report.	EQ LS WF FL SEC	X									OES	
c-13	b-13	Continue to participate not only in general mutual-aid agreements, but also in agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters.	EQ LS WF FL SEC	X									Emergency Management	Annual Emergency Plan maintenance/training/exercises in coordination with County OES
c-14	b-14 & b-22	Install alert and warning systems for rapid evacuation or shelter-in-place. Such systems include outdoor sirens and/or reverse-911 calling systems.	EQ LS WF FL SEC											
c-15	b-15	Conduct periodic tests of the alerting and warning system. (deleted some wording)	EQ LS WF FL SEC											
c-16	b-16	Regulate and enforce the location and design of street-address numbers on buildings and minimize the naming of short streets (that are actually driveways) to single homes.	EQ LS WF FL SEC	X									Fire/Planning & Community Development	2001 California Fire Code as amended

Government Mitigation Strategies

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c-17	b-17	Monitor weather during times of high fire risk using, for example, weather stations tied into police and fire dispatch centers.	WF	X										Fire	Standard Operating Procedures through NOAA weather and computer access
c-18	b-18	Establish regional protocols on how to respond to the NOAA Monterey weather forecasts, such as the identifying types of closures, limits on work that could cause ignitions, and repositioning of suppression forces. A multi-agency coordination of response also helps provide unified messages to the public about how they should respond to these periods of increased fire danger. Response should also be modified based on knowledge of local micro-climates. Local agencies with less risk then may be available for mutual aid.	WF											Fire	Fire Department policy, Augmented staffing and San Mateo Fire JPA agreement
c-19	b-19	Increase local patrolling during periods of high fire weather.	WF	X											Fire Department policy, Augmented staffing and San Mateo Fire JPA agreement
c-20	b-20	Create and maintain an automated system of rain and flood gauges that is web enabled and publicly-accessible. Work toward creating a coordinated regional system.	FL LS		X										Fire Department policy, Augmented staffing and San Mateo Fire JPA agreement
c-21	b-21	Place remote sensors in strategic locations for early warning of hazmat releases or use of weapons of mass destruction, understanding that the appropriate early warning strategy depends on the type of problem.	EQ LS WF FL SEC									X			
c-22	b-23	Review and update, as necessary, procedures pursuant to the State Dam Safety Act for the emergency evacuation of areas located below major water-storage facilities.	EQ LS FL SEC									X			
c-23	a-8	Improve coordination among cities, counties, and dam owners so that cities and counties can better plan for evacuation of inundation areas for dams whose failure would impact their jurisdiction.	EQ LS FL SEC									X			
c-24	b-24	Develop procedures for the emergency evacuation of areas identified on tsunami evacuation maps as these maps become available.	EQ (TS)									X		SMC OES(OA)	
c-25	new	Support and encourage planning and identification of facilities for the coordination of distribution of water, food, blankets, and other supplies, coordinating this effort with the American Red Cross.	EQ LS WF FL SEC											OES	
GOVT - d - Participate in National, State, Multi-Jurisdictional and Professional Society Efforts to Identify and Mitigate Hazards				X											

Government Mitigation Strategies

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d-1	c-1	Promote information sharing among overlapping and neighboring local governments, including cities, counties, and special districts, as well as utilities.	EQ LS WF FL SEC	X										OES
d-2	c-2	Recognize that emergency services is more than the coordination of police and fire response, for it also includes planning activities with providers of water, food, energy, transportation, financial, information, and public health services.	EQ LS WF FL SEC	X										OES
d-3	c-3	Recognize that a multi-agency approach is needed to mitigate flooding by having flood control districts, cities, counties, and utilities meet at least annually to jointly discuss their capital improvement programs for most effectively reducing the threat of flooding. Work toward making this process more formal to insure that flooding is considered at existing joint-agency meetings.	FL	X										
d-4	c-4	As new flood-control projects are completed, request that FEMA revise its flood-insurance rate maps and digital Geographic Information System (GIS) data to reflect flood risks as accurately as possible.	FL	X									Public Works	
d-5	c-5	Participate in FEMA's National Flood Insurance Program.	FL	X										City of Brisbane Municipal Code Title 15.56
d-6	c-6	Participate in multi-agency efforts to mitigate fire threat, such as the Hills Emergency Forum (in the east Bay), various FireSafe Council programs, and city-utility task forces. Such participation increases a jurisdiction's competitiveness in obtaining grants.	WF	X									Fire	Mutual Threat Zone agreement between CDF and North County Fire Authority
d-7	c-7	Work with major employers and agencies that handle hazardous materials to coordinate mitigation efforts for the possible release of these materials due to a natural disaster such as an earthquake, flood, fire, or landslide.	EQ LS WF FL SEC	X									County Responsibility under CUPA	
d-8	c-8	Encourage staff to participate in efforts by professional organizations to mitigate earthquake and landslide disaster losses, such as the efforts of the Northern California Chapter of the Earthquake Engineering Research Institute, the East Bay Peninsula Chapter of the International Code Council, the Structural Engineers Association of Northern California, and the American Society of Grading Officials.	EQ LS	X									Planning & Community Development	Building Official Participates in SEA

Government Mitigation Strategies

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d-9	c-9	Conduct and/or promote attendance at local or regional hazard conferences and workshops for elected officials and staff to educate the officials on the critical need for programs in mitigating earthquake, wildfire, flood, and landslide hazards.	EQ LS WF FL SEC											
d-10	c-10	Cooperate with researchers working on government-funded projects to refine information on hazards, for example, by expediting the permit and approval process for installation of seismic arrays, gravity survey instruments, borehole drilling, fault trenching, landslide mapping, flood modeling, and/or damage data collection.	EQ LS WF FL SEC	X									Public Works	
GOVT - d - Take a Lead in Loss and Risk Assessment Activities														
e-1	e-1	Work with the cities, counties, and special districts in the Bay Area to encourage them to adopt a Local Hazard Mitigation Plan and to assist them in integrating it into their overall planning process. RESPONSIBILITY: ABAG only; all others are "not applicable."	EQ LS WF FL DR TS SEC Flu Ag Heat											
e-2	e-2	Improve the risk assessment and loss estimation work in the <i>Taming Natural Disasters</i> report and multi-jurisdictional plan related to natural disasters. RESPONSIBILITY: ABAG only; all others are "not applicable."	EQ LS WF FL DR TS Flu Ag Heat								X			

Education Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Priority (CHECK ONLY ONE)										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	
				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				
EDUC - a	a-1	Focus on Critical Facilities (i.e. Owned by School Districts)	EQ LS WF FL SEC													
a-1	a-1	Assess the vulnerability of critical public education facilities to damage in natural disasters and make recommendations for appropriate mitigation.	EQ LS WF FL SEC													
a-2	a-2	Retrofit or replace critical public education facilities that are shown to be vulnerable to damage in natural disasters.	EQ LS WF FL SEC													
a-3	a-3	Conduct comprehensive programs to identify and mitigate problems with facility contents, architectural components, and equipment that will prevent critical public education buildings from being functional after major disasters.	EQ LS WF FL SEC													
a-4	a-4	As a secondary focus, assess the vulnerability of non-critical educational facilities (that is, those that do not house students) to damage in natural disasters based on occupancy and structural type, make recommendations on priorities for structural improvements or occupancy reductions, and identify potential funding mechanisms.	EQ LS WF FL SEC													
a-5	a-5	new/ Assess the vulnerability of critical private education, pre-school, and day care facilities to damage in natural disasters and make recommendations for appropriate mitigation.	EQ LS WF FL SEC													
a-6	a-6	(Major Reworking) Work with CalEMA and the Division of the State Architect to ensure that there will be an adequate group of Safety Assessment Program (SAP) inspectors trained and deployed by CalEMA to schools for post-disaster inspection. In addition, if a school district is uncomfortable with delays in inspection due to too few SAP inspectors available in catastrophic disasters, formalized arrangements with those inspectors certified by the Division of the State Architect as construction inspectors to report to the district, assess damage, and determine if the buildings can be reoccupied can also be created.	EQ LS WF FL SEC													

EDUC - b - Use of Educational Facilities as Emergency Shelters

Education Mitigation Strategies

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b-1	b-1	Work cooperatively with the American Red Cross, cities, counties, and non-profits to set up memoranda of understanding for use of education facilities as emergency shelters following disasters.	EQ LS WF FL SEC	X										OES	
b-2	b-2	Work cooperatively to ensure that school district personnel and relevant staff understand and are trained that being designated by the American Red Cross or others as a potential emergency shelter does NOT mean that the school has had a hazard or structural evaluation to ensure that it can be used as a shelter following any specific disaster.	EQ LS WF FL SEC	X										OES	
b-3	b-3	Work cooperatively to ensure that school district personnel understand and are trained that they are designated as disaster service workers and must remain at the school until released.	EQ LS WF FL SEC	X											
EDUC - c - Actions Related to Disaster Preparedness and Recovery Planning															
c-1	c-1 new	Encourage employees of schools to have family disaster plans and conduct mitigation activities in their own homes.	EQ LS WF FL SEC		X							X		Fire	Part of public education in the schools
c-2	c-2	Develop plans, in conjunction with fire jurisdictions, for evacuation or sheltering in place of school children during periods of high fire danger, thereby recognizing that overloading of streets near schools by parents attempting to pick up their children during these periods can restrict access by fire personnel and equipment.	EQ LS WF FL SEC												
c-3	c-3	Offer the 20-hour basic CERT training to teachers and after-school personnel.	EQ LS WF FL SEC											OES	CERT Training is available to all Brisbane businesses and citizens
c-4	c-4	Offer the 20-hour basic Student Emergency Response Training (SERT, rather than CERT) training to middle school and/or high school students as a part of the basic science or civics curriculum, as an after school club, or as a way to earn public service hours.	EQ LS WF FL SEC												
c-5	c-5	Offer the 20-hour basic CERT training course through the Adult School system and/or through the Community College system (either using instructors with teaching credentials or by making facilities available for classes not run by school personnel themselves).	EQ LS WF FL SEC												

Education Mitigation Strategies

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c-6	c-6	Develop and maintain the capacity for schools to take care of the students for the first 48 hours after a disaster, and notify parents that this capacity exists.	EQ LS WF FL SEC								X			
c-7	new	Develop a continuity of operations and disaster recovery plan using models such as that developed by the University of California Berkeley. (The American Red Cross has a role in promoting this activity, as well, in schools that they plan to use as shelters.)	EQ LS WF FL SEC										OES	Developed with FEMA Course E210 Protocol
EDUC - d-		Actions Related to Schools as Conduits for Information to Families About Emergencies		X										
d-1	c-1	Utilize the unique ability of schools to reach families through educational materials on hazards, mitigation, and preparedness, particularly after disasters and at the beginning of the school year. These efforts will not only make the entire community more disaster-resistant, but speed the return of schools from use as shelters to use as teaching facilities, particularly if coordinated with cities, counties, the American Red Cross and others.	EQ LS WF FL SEC											
d-2	c-7	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website.	EQ LS WF FL SEC							X				

Environment Mitigation Strategies

Original Strategy Code	Number	Specific Mitigation Strategy	Applicable Hazards	Priority (CHECK ONLY ONE)								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						
				Existing Program	Existing Program, undervalued	Unofficial Program	Becomes Official on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Applicable, Not Appropriate, or Cost Effective			Not Yet Considered					
ENVI - a-1	a-1	Environmental Sustainability and Pollution Reduction Continue to enforce State-mandated requirements, such as the California Environmental Quality Act, to ensure that mitigation activities for hazards, such as vegetation clearance programs for fire threat and seismic retrofits, are conducted in a way that reduces environmental degradation such as air quality impacts, noise during construction, and loss of sensitive habitats and species, while respecting the community value of historic preservation.	EQ LS WF FL DR SEC																CEQA review of discretionary permit applications
a-2	a-2	Encourage regulatory agencies to work collaboratively with safety professionals to develop creative mitigation strategies that effectively balance environmental and safety needs, particularly to meet critical wildfire, flood, and earthquake safety levels.	EQ WF FL SEC	X															Planning & Community Development
a-3	a-3	Continue to enforce and/or comply with State-mandated requirements, such as the California Environmental Quality Act and environmental regulations to ensure that urban development is conducted in a way to minimize air pollution. For example, air pollution levels can lead to global warming, and then to drought, increased vegetation susceptibility to disease (such as pine bark beetle infestations), and associated increased fire hazard.	LS WF FL DR SEC											X					Public Works/Planning & Community Development
a-4	a-4	Develop and implement a comprehensive program for watershed management optimizing ecosystem health with water yield to balance water supply, flooding, fire, and erosion concerns.	LS WF FL DR SEC	X															Planning & Community Development
a-5	a-5	Balance the need for the smooth flow of storm waters versus the need to maintain wildlife habitat by developing and implementing a comprehensive Streambed Vegetation Management Plan that ensures the efficacy of flood control efforts, wildfire mitigation, and maintains the viability of living rivers.	LS WF FL DR													X			DPW
a-6	a-6	Comply with applicable performance standards of any National Pollutant Discharge Elimination System municipal stormwater permit that seeks to manage increases in stormwater run-off flows from new development and redevelopment construction projects.	FL														X		Public Works

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Original Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, undervalued	Unofficial Program, Becomes Official on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Applicable, 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	a-9	Enforce and/or comply with the grading, erosion, and sedimentation requirements by prohibiting the discharge of concentrated stormwater flows by other than approved methods that seek to minimize associated pollution.	LS FL	X								Public Works	Brisbane Municipal Code 13.06
a-8	a-10	Explore ways to require that hazardous materials stored in the flood zone be elevated or otherwise protected from flood waters.	FL	X								Planning & Community Development	Permit process
a-9	a-11	Enforce and/or comply with the hazardous materials requirements of the State of California Certified Unified Program Agency (CUPA).	EQ LS WF FL SEC	X								County is CUPA administrator	
a-10	a-12	Provide information on hazardous waste disposal and/or drop off locations.	EQ LS WF FL SEC	X								Public Works NPDES	Part of Public Information and Participation Program
a-11	new	When remodeling existing government and infrastructure buildings and facilities, remove asbestos to speed up clean up of buildings so that they can be reoccupied more quickly.	EQ LS WF FL SEC	X									
a-12	a-13	Develop and implement a program to control invasive and exotic species that contribute to fire and flooding hazards (such as eucalyptus, cattails, and cordgrass). This program could include vegetation removal, thinning, or replacement in hazard areas where there is a direct threat to structures.	WF FL						X			DPW	On going
a-13	a-14	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	X								Public Works	MBC 13.06.180
ENVI - b	Climate Change			X									
b-1	a-6 + a-7	Stay informed of scientific information compiled by regional and state sources on the subject of rising sea levels and global warming, especially on additional actions that local governments can take to mitigate this hazard including special design and engineering of government-owned facilities in low-lying areas, such as wastewater treatment plants, ports, and airports.	LS WF DR									Planning	
b-2	new	Inventory global warming emissions in your own local government's operations and in the community, set reduction targets and create an action plan.	LS WF DR	X								City Managers Office	government inventory completed

Environment Mitigation Strategies

Original Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, undervalued	Official Program, undervalued	On Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Appropriate, 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
b-3	new	Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities.	LS WF FL DR	X									Planning	Brisbane Municipal Code Section 17.12, draft 2009 Housing Element
b-4	new	Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit.	LS WF FL DR	X									Planning	TDM Requirement, City Trails Master Plan
b-5	new	Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology.	LS WF FL DR							X			Planning	collection and analysis of wind data underway to assess potential wind power generation capability
b-6	new	Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money.	LS WF FL DR		X								DPW	
b-7	new	Purchase only Energy Star equipment and appliances for local government use.	LS WF FL DR		X								All departments	When available and when appliances are replaced
b-8	new	Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system.	LS WF FL DR	X									Planning/Building	City adopted Green Building Ordinance (BMC Chapter 15.80)
b-9	new	Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel.	LS WF FL DR										DPW	Higher efficiency purchased upon replacement of existing
b-10	new	Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production.	LS WF FL DR	X									City Managers Office	
b-11	new	Increase recycling rates in local government operations and in the community.	LS WF FL DR		X								DPW	Brisbane municipal Code Chapter 12.12 & 17.42
b-12	new	Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO2.	LS WF FL DR	X										
b-13	new	Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.	LS WF FL DR									X		
ENVI - c - Agricultural and Aquaculture Resilience														

Environment Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, undervalued	Unofficial Program - Becomes Official	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.
c-1	b-1	Maintain a variety of crops in rural areas of the region to increase agricultural diversity and crop resiliency. RESPONSIBLE AGENCIES: County Offices of the Agricultural Commissioner.	Ag DR SEC											No significant agricultural resources within City limits
c-2	b-2	Promote and maintain the public-private partnerships dedicated to preventing the introduction of agricultural pests into regionally-significant crops, such as the glassy-winged sharpshooter into vineyards. RESPONSIBLE AGENCIES: County Offices of the Agricultural Commissioner.	Ag DR SEC											
c-3	b-4	Encourage livestock operators to develop an early-warning system to detect animals with communicable diseases (due to natural causes or bioterrorism). RESPONSIBLE AGENCIES: County Health Department and Office of the County Agricultural Commissioner.	Ag Flu SEC											
deleted	b-3	(deleted since not a disaster-related strategy)												

Land Use Mitigation Strategies

Original Strategy Code	Number	Specific Mitigation Strategy	Applicable Hazards	Priority (CHECK ONLY ONE)							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
				Existing Program	Existing Program, underfunded	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		
2009	a-1	LAND - a-1 Earthquake Hazard Studies for New Private Developments Enforce and/or comply with the State-mandated requirement that site-specific geologic reports be prepared for development proposals within Alquist-Priolo Earthquake Fault Zones, and restrict the placement of structures for human occupancy. (This Act is intended to deal with the specific hazard of active faults that extend to the earth's surface, creating a surface rupture hazard.)	EQ									No Alquist-Priolo Zones within City
	a-2	Require preparation of site-specific geologic or geotechnical reports for development and redevelopment proposals in areas subject to earthquake-induced landslides or liquefaction as mandated by the State Seismic Hazard Mapping Act in selected portions of the Bay Area where these maps have been completed, and condition project approval on the incorporation of necessary mitigation measures related to site remediation, structure and foundation design, and/or avoidance.	EQ									Brisbane Municipal Code 15.01
	a-3	Recognizing that some faults may be a hazard for surface rupture, even though they do not meet the strict criteria imposed by the Alquist-Priolo Earthquake Fault Zoning Act, identify and require geologic reports in areas adjacent to locally-significant faults.	EQ									Brisbane Municipal Code 15.01
	a-4	new Ensure that development proposed near faults with a history of complex surface rupture (multiple traces, warping, thrusting, etc.) has larger setbacks than the minimum fifty feet.	EQ									
	a-5	new Consider imposing requirements similar to the Alquist-Priolo Earthquake Fault Zoning Act for structures without human occupancy if these buildings are still essential for the economic recovery of the community or region.	EQ									
	a-6	Recognizing that the California Geological Survey has not completed earthquake-induced landslide and liquefaction mapping for much of the Bay Area, identify and require geologic reports in areas mapped by others as having significant liquefaction or landslide hazards.	EQ									CEQA review of discretionary permit applications Brisbane Municipal Code 15.01
	a-7	Support and/or facilitate efforts by the California Geological Survey to complete the earthquake-induced landslide and liquefaction mapping for the Bay Area.	EQ									City staff is available to meet w/CGS on request

Land Use Mitigation Strategies

Original Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, undervalued	Unofficial Program, Becomes Official	no funding needed, on Plan Adoption,	High - Actively Looking for Funding	Moderate	Under Study, Not Applicable, 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
a-8	a-6	Require that local government reviews of geologic and engineering studies are conducted by appropriately trained and credentialed personnel.	EQ	X								Planning/Building/ Public Works	Brisbane Municipal Code 15.01
		LAND - b - Wildland and Structural Fires											
b-1	b-1	Review new development proposals to ensure that they incorporate required and appropriate fire-mitigation measures, including adequate provisions for occupant evacuation and access by emergency response personnel and equipment.	WF	X								Fire	Enforcement of 2001 California Fire Codes as amended through Fire Prevention Program
b-2	b-2	Develop a clear legislative and regulatory framework at both the state and local levels to manage the wildland-urban-interface consistent with <i>Fire Wise</i> and sustainable community principles.	WF	X								Fire	Participation in county and state fire prevention organizations
		LAND - c - Flooding											
c-1	c-1	Establish and enforce requirements for new development so that site-specific designs and source-control techniques are used to manage peak stormwater runoff flows and impacts from increased runoff volumes.	FL	X								Public Works NPDES	New development requirement of NPDES Program
c-2	c-2	Incorporate FEMA guidelines and suggested activities into local government plans and procedures for managing flood hazards.	FL	X								FPA	Ordinance was changed based on FEMA input from last Community Assistance visit
c-3	c-3	Provide an institutional mechanism to ensure that development proposals adjacent to floodways and in floodplains are referred to flood control districts and wastewater agencies for review and comment (consistent with the NPDES program).	FL	X								Public Works	Operate our own
c-4	c-4	Establish and enforce regulations concerning new construction (and major improvements to existing structures) within flood zones in order to be in compliance with federal requirements and, thus, be a participant in the Community Rating System of the <i>National Flood Insurance Program</i> .	FL	X						X		Planning & Community Development	Brisbane Municipal Code Title 15.56
c-5	c-5	Encourage new development near floodways to incorporate a buffer zone or setback from that floodway to allow for changes in stormwater flows in the watershed over time.	FL	X								Planning	Review of discretionary permits

Land Use Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, underfunded	Unofficial Program, Becomes Official on Plan Adoption, no funding needed, High - Actively Looking for Funding	Moderate	Under Study, Not Applicable, 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 requested
c-6	new	For purposes of creating an improved hazard mitigation plan for the region as a whole, ABAG, and Bay Area cities and counties, jointly request geographically defined repetitive flooding loss data from FEMA for their own jurisdictions.	FL								
LAND - d - Landslides and Erosion											
d-1	d-1	Establish and enforce provisions (under subdivision ordinances or other means) that geotechnical and soil-hazard investigations be conducted and filed to prevent grading from creating unstable slopes, and that any necessary corrective actions be taken prior to development approval.	LS						X	Public Works	15.01 Brisbane Municipal Code
d-2	d-2	Require that local government reviews of these investigations are conducted by appropriately trained and credentialed personnel.	LS	X						Public Works	15.01 Brisbane Municipal Code
d-3	d-3	Establish and enforce grading, erosion, and sedimentation ordinances by requiring, under certain conditions, grading permits and plans to control erosion and sedimentation prior to development approval.	LS	X						Public Works	15.01 Brisbane Municipal Code
d-4	d-4	Establish and enforce provisions under the creek protection, storm water management, and discharge control ordinances designed to control erosion and sedimentation.	LS	X						Public Works	13.06 Brisbane Municipal Code
d-5	d-5	Establish requirements in zoning ordinances to address hillside development constraints, especially in areas of existing landslides.	LS	X						Planning & Community Development	Brisbane Municipal Code Title 17
LAND - e - Hillside - Multi-Hazard											
e-1	e-1	For new development, require a buffer zone between residential properties and landslide or wildfire hazard areas.	LS WF	X						Planning & Community Development	San Bruno HCP, Brisbane Municipal Code Title 17
e-2	e-2	Discourage, add additional mitigation strategies, or prevent new construction or major remodels on slopes greater than a set percentage, such as 15%, due to landslide or wildfire hazard concerns.	LS WF						X		
LAND - f - Smart Growth to Revitalize Urban Areas and Promote Sustainability											
f-1	f-1	Prioritize retrofit of infrastructure that serves urban areas (or urban services areas) over constructing new infrastructure to serve outlying areas.	EQ LS WF FL DR SEC						X		

Land Use Mitigation Strategies

2009 Strategy Code	Original Strategy Number	Specific Mitigation Strategy	Applicable Hazards	Existing Program	Existing Program, undervalued	Official Program, undervalued	On Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study, Not Applicable, 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, DR
f-2	f-2	Work to retrofit homes in older urban neighborhoods to provide safe housing close to job centers.	EQ LS WF FL DR SEC										
f-3	f-3	Work to retrofit older downtown areas and redevelopment districts to protect architectural diversity and promote disaster-resistance.	EQ LS WF FL SEC								X		
f-4	f-4	Work with non-profits and through other mechanisms to protect as open space areas susceptible to extreme hazards (such as through land acquisition, zoning, and designation as priority conservation areas).	EQ LS WF FL SEC	X								City Managers Office	Brisbane Acres Acquisition Program
f-5	f-5	Strive to provide preserve existing buffers between development and existing users of large amounts of hazardous materials, such as major industry, due to the potential for catastrophic releases or fires due to an earthquakes, accidents, or terrorism. (Flooding might also result in release or spread of these materials, however it is unlikely) in areas where buffers do not exist or cannot be created, provide alternative mitigation.	EQ LS WF FL SEC	X								Planning & Community Development	CEQA review of discretionary permits
LAND - g	new	Hazard Abatement Districts	EQ LS WF FL										
g-1	new	Use hazard abatement districts as a funding mechanism to ensure that mitigation strategies are implemented and enforced over time.	EQ LS WF FL						X				

RESOLUTION NO. 2005-66

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BRISBANE
APPROVING THE ABAG REPORT "TAMING NATURAL DISASTERS" AS
THE CITY OF BRISBANE'S LOCAL HAZARD MITIGATION PLAN**

WHEREAS, the Bay Area is subject to various earthquake-related hazards such as ground shaking, liquefaction, landsliding, fault surface rupture, and tsunamis' and

WHEREAS, the Bay Area is subject to various weather-related hazards including wildfires, floods and landslides; and

WHEREAS, the City of Brisbane acknowledges that disasters do not recognize city, county, or special district boundaries; and

WHEREAS, the City of Brisbane seeks to maintain and enhance both a disaster-Resistant City/County/District and region by reducing the potential loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters; and

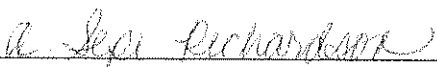
WHEREAS, the City of Brisbane is committed to increasing the disaster resistance of the infrastructure, health, housing, economy, government services, education, environment, and land use systems in the City of Brisbane, as well as in the Bay Area as a whole; and

WHEREAS, the federal Disaster Mitigation Act of 2000 requires all cities, counties, and special districts to have adopted a Local Hazard Mitigation Plan to receive disaster mitigation funding from FEMA; and

WHEREAS, ABAG has approved and adopted the ABAG report Taming Natural Disasters as the multi-jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area;

NOW, THEREFORE, BE IT RESOLVED that the City of Brisbane adopts, with its local annex, this multi-jurisdictional plan as its Local Hazard Mitigation Plan.

BE IT FURTHER RESOLVED that the City of Brisbane commits to continuing to take those actions and initiating further actions, as appropriate, as identified in the City of Brisbane Annex of that multi-jurisdictional Local Hazard Mitigation Plan.

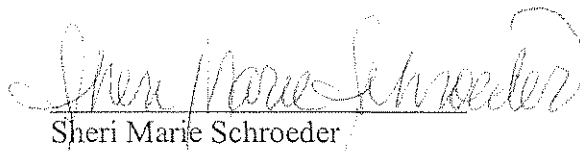

A. Sepi Richardson, Mayor

I hereby certify that the foregoing Resolution No. 2005-66 was duly and regularly adopted at a regular meeting of the Brisbane City Council on December 5, 2005 by the following vote:

AYES: Councilmembers Barnes, Bologoff, Panza, and Mayor Richardson

NOES: None

ABSENT: None

A handwritten signature in cursive script that reads "Sheri Marie Schroeder". The signature is written in black ink and is positioned above a horizontal line.

Sheri Marie Schroeder
City Clerk



CITY OF BRISBANE

50 Park Place
Brisbane, California 94005-1310
(415) 508-2100
Fax (415) 467-4989

May, 27, 2007

Henry Gardner
Executive Director
Association of Bay Area Governments
P.O. Box 2050
Oakland, CA 94604

RE: Letter of Commitment as participating jurisdiction in ABAG Multi-jurisdictional Hazard Mitigation Planning

Dear Mr. Gardner,

As the Federal Emergency Management Agency's (FEMA) Local Mitigation Plan requirements under 44 CFR §201.6 specifically identify criteria that allow for multi-jurisdictional mitigation plans and that many issues are better resolved by evaluating hazards more comprehensively by coordinating at the county, regional, or watershed level, the City of Brisbane is submitting this letter of commitment to confirm that the City of Brisbane has agreed to participate in the Association of Bay Area Governments (ABAG) Multi-jurisdictional Hazard Mitigation Planning.

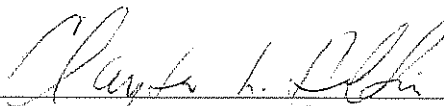
Further, as a condition to participating in the mitigation planning, the City of Brisbane agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to ABAG to complete the plan in conformance with FEMA requirements.

The City of Brisbane understands that it must engage in the following planning process, as more fully described in FEMA's Local Multi-Hazard Mitigation Planning Guidance dated July 1, 2008, including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.); and
- Documentation of an effective process to maintain and implement the plan; and,
- Formal adoption of the Multi-jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by participating in the FEMA hazard mitigation planning process as a participant in a multi-jurisdictional plan; I, Clayton L. Holstine, City Manager, commit the City of Brisbane to the Association of Bay Area Governments (ABAG) Multi-jurisdictional Hazard Mitigation Planning effort.

Executed this 27 day of May, 2009



Clayton L. Holstine, City Manager
City of Brisbane

Providing Quality Services



FEMA

January 11, 2006

Jeanne B. Perkins
Earthquake and Hazards Program Manager
Association of Bay Area Governments
P O Box 2050
Oakland, California 94604-2050

Dear Ms. Perkins:

We have completed the final review of the Association of Bay Area Governments (ABAG), Multi-Jurisdiction Hazard Mitigation Plan with three additional plan annexes and found the plan to be in compliance with the Disaster Mitigation Act of 2000 requirements. Other jurisdictions that participated in the plan's development are also eligible for approval, when we receive signed documentation that the governing body of each jurisdiction has formally adopted the plan.

ABAG can be commended for working with each jurisdiction to develop regional and local risk and vulnerability assessments, as well as practical actions for hazard mitigation. We have approved the annexes for the following jurisdictions:

City of El Cerrito
City of Brisbane
City of Livermore

We have placed a copy of the approved plans into the National Emergency Management Information System (NEMIS) plans repository for future reference. The enclosed crosswalks provide specific recommendations to incorporate into each plan when ABAG, or the individual jurisdiction, undertakes its identified plan maintenance process.

This plan is valid for five years from the approval date. The plan must be reviewed, updated and submitted to FEMA Region IX for approval at least once every five years. Regional approval will be based, in part, on the successful incorporation of our recommendations into subsequent iterations.

Jeanne B. Perkins
January 11, 2006
Page 2

The approval of this Plan is not an indication that the actions described can automatically be funded by our Pre-Disaster Mitigation, Hazard Mitigation Grant and/or Flood Mitigation Assistance Programs. All requests for funding will be evaluated individually according to the specific eligibility and other requirements of the particular program under which the application is submitted. For example, a specific mitigation activity or project identified in the plan may not meet the eligibility requirements for FEMA funding, and even eligible mitigation activities are not automatically approved for FEMA funding under any of the aforementioned programs.

If you have any questions regarding the planning process, please contact Helen DuBois, Mitigation Planning Coordinator, (510) 627-7272, or by email at helen.dubois@dhs.gov. An alternate contact is Juliette Hayes, (510) 627-7211, or by email at juliette.hayes@dhs.gov.

Sincerely,



Sally Ziolkowski, Director
Mitigation Division

Enclosures

Cc: John Rowden
State Hazard Mitigation Officer
California Governor's Office of Emergency Services