CITY OF OAKLAND

AGENDA REPORT

TO: DEANNA J. SANTANA
CITY ADMINISTRATOR

FROM: Fred Blackwell

SUBJECT: Safety Element General Plan Amendment

DATE: May 17, 2012

City Administrator Approval Deanna Santana Date 5/22/12

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

Staff recommends that the City Council adopt:

A RESOLUTION AMENDING THE SAFETY ELEMENT OF THE OAKLAND GENERAL PLAN TO INCORPORATE THE OAKLAND LOCAL HAZARD MITIGATION PLAN AS AN IMPLEMENTATION ANNEX

EXECUTIVE SUMMARY

On March 20, 2012, the Oakland City Council reviewed and adopted the Oakland Local Hazard Mitigation Plan for the years 2010-2015 ("Oakland LHMP"). A key component of state and federal disaster mitigation law is that cities amend their General Plan Safety Element to include a Local Hazard Mitigation Plan, in order to be eligible to receive federal disaster relief funding. Therefore, staff is requesting action by the City Council to adopt a General Plan Amendment, making the Oakland Local Hazard Mitigation Plan a legally binding part of the *Safety Element* of the Oakland General Plan. Upon completion of this action, the City of Oakland will be fully compliant with Federal Emergency Management Act (FEMA) requirements, and eligible for disaster relief funds from the State and Federal emergency management agencies.

For more details about hazards, and disaster mitigation, see ***Attachment A*** - the agenda report and resolution for the March 20, 2012 City Council action, adopting the Oakland LHMP. The Oakland LHMP itself is ***Attachment B*** to this report.

OUTCOME

The *Safety Element* of the Oakland General Plan was adopted by City Council in November 2004, and is still a current and accurate statement of the City's goals, policies and actions towards

mitigating safety hazards.[1] The *Safety Element* establishes three broad goals which establish the overall framework for the mitigation of safety hazards in Oakland. These goals are expanded into specific policies and detailed actions in the *Safety Element:*

- Protect the health and safety of Oakland residents and others in the city by minimizing potential loss of life and injury caused by safety hazards;
- Safeguard Oakland's economic welfare by reducing potential property loss, damage to infrastructure, and social and economic dislocation and disruption resulting from safety hazards; and
- Preserve Oakland's environmental quality by minimizing the potential damage to natural resources from safety hazards.

The current item before the City Council is a proposal to amend the *Safety Element* of the Oakland General Plan to incorporate the Oakland Local Hazard Mitigation Plan (LHMP) as a new implementation annex (Appendix F). It will also add the following new language to the *Safety Element,* in the form of an insert, stapled into the printed copies and added to the electronic versions:

Section **1.2.** | **The Safety Element** (new paragraph added after "Implementing the safety element", pg. 7):

> "The City will adopt and implement the strategies in a local hazard mitigation plan, which reduce the impacts of natural and man-made disasters, under the requirements of the Federal Disaster Mitigation Act of 2000. On March 20, 2012, the City Council adopted the Oakland Hazard Mitigation Plan, which serves as an "implementation annex" to the *Safety Element* (and is included in the *Safety Element* as Appendix **F**). Specifically, the 360 strategies in the adopted Hazard Mitigation Plan are a set of actions the City is taking, or is considering taking, to reduce the risks of disasters on Oakland residents, businesses and essential government services. The Fire Department's Office of Emergency Services will be the lead City agency responsible for evaluating the Plan on a regular basis, as necessary, to comply with federal and state laws, and for preparing future editions of the Local Hazard Mitigation Plan."

Section 2.4 | Policy Statements (add two new Policy Statement (PS) Actions):

> "Action PS-1.2.1 To comply with federal and state law, adopt, follow, and update the Oakland Local Hazard Mitigation Plan."

[1] The *Safety Element* can be purchased from the City's Department of Planning and Building, 250 Frank Ogawa Plaza, Suite 3315, Oakland, CA 94612; or downloaded for free from the City's website, http://www2.oaklandnet.com/Government/o/PBN/OurServices/GeneralPlan/DOWO009020

⇒ **OFD Office of Emergency Services, in consultation with the Department of Planning, Building and Neighborhood Preservation**

"Action PS-1.2.2 City staff will study the occurrence, and damage from, windstorms, to the residents and businesses of Oakland. If windstorms are found to be a significant environmental hazard, then staff will include strategies to mitigate windstorms in the next update of the Oakland Local Hazard Mitigation Plan."

⇒ **OFD Office of Emergency Services**

BACKGROUND/LEGISLATIVE HISTORY

The most significant potential hazards affecting the Bay Area, based on our history, as well as identified in the State Hazard Mitigation Plan, are related to:

- Earthquakes (surface faulting, ground shaking, liquefaction, landslides, and tsunamis), or
- Weather (flooding, landslides, wildfires, drought, and climate change).

Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. A hazard mitigation plan identifies the hazards a community or region may face, assesses their vulnerability to the hazards, and identifies specific actions that can be taken to reduce the risk from the hazards.

The Federal Disaster Mitigation Act of 2000 (the Federal Disaster Act) reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. The Federal Disaster Act is intended to facilitate cooperation between state and local authorities, prompting them to work together. It encourages and rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance. This enhanced planning network will better enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects.

The Federal Disaster Act outlines a process which cities, counties, and special districts can follow to develop a Local Hazard Mitigation Plan (LHMP). Development of this plan is a requirement for certain and other benefits from the California Emergency Management Agency and FEMA following a disaster.

Those benefits include:

- A more disaster-resistant and resilient community and region;

- Eligibility for hazard mitigation assistance programs, including the Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance and Severe Repetitive Loss grant programs[2];
- Eligibility for points under the National Flood Insurance Program's Community Rating System;
- Eligibility for waiver of the 6.25% local match for Public Assistance money after a disaster.

A LHMP has lo be approved by FEMA in order for a local government to be eligible to receive federal hazard mitigation project funding. The Oakland Local Hazard Mitigation Plan for the years 2010-2015 ("Oakland LHMP") was developed in consultation with staff at the Association of Bay Area Governments (ABAG), who produced "Taming Natural Disasters: A Mulli-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area" ("Multi-Jurisdictional LHMP") in 2010. The Mulli-Jurisdictional-LHMP has been adopted by ABAG, and over 100 other local jurisdictions are in the process of updating their Hazard Mitigation Plans based upon the Multi-Jurisdictional LHMP[3]. Oakland adopted the prior LHMP in 2005, under Council Resolution 79683 C.M.S.[4] The goal of the Multi-Jurisdictional LHMP and the Oakland LHMP is:

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

On February 1, 2012, the Planning Commission reviewed ABAG's multi-jurisdictional hazard mitigation plan, 'Taming Natural Disasters,' and unanimously recommended its adoption by the City Council as the Oakland Local Hazard Mitigation Plan (LHMP).

At a public hearing on March 20, 2012, the Oakland City Council also considered, and adopted, ABAG's multi-jurisdictional hazard mitigation plan, 'Taming Natural Disasters,' as the Oakland Local Hazard Mitigation Plan (Resolution No. 83758). However, because ABAG, the California Emergency Management Agency, and FEMA deadlines did not provide sufficient time to fulfill the procedural requirements for adoption of a General Plan Amendment, that Council action did not include a General Plan Amendment to make the Oakland Local Hazard Mitigation Plan (LHMP) a part of the *Safety Element* of the Oakland General Plan.[5] The current item is a

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[2] See State of California website, http://hazardmitigation.calema.ca.gov/grants
[3] See ABAG's website for Hazard Mitigation, http://quake.abag.ca.gov/mitigation/.
[4] Available at:
http://www2.oaklandnet.eom/Government/o/PBN/OurOrganization/PlanningZoning/OAK032857
[5] State law for General Plan Amendments requires, in some cases, 45 days notice to neighboring jurisdictions and agencies; that notification schedule would not have permitted Oakland to meet ABAG's deadline for adoption of the LHMP by March 24, 2012.

proposal to amend the *Safety Element* of the Oakland General Plan to incorporate the LHMP — particularly the 360 strategies for disaster mitigation in the LHMP. As a result, this proposal would effectively update the *Safety Element* with current City actions, and best practices for disaster planning. This approach is consistent with instructions by the California Emergency Management Agency for adoption of the City's LHMP.

On May 2, 2012, the Oakland Planning Commission held a public hearing on this proposed General Plan Amendment, and voted unanimously to recommend its adoption to the City Council. City staff sent notice of this pending General Plan Amendment lo neighboring jurisdictions and required agencies, as well as lo other interested parties, the required forty-five (45) days in advance of the May 2nd, 2012 Planning Commission hearing which is the subject of this report. In addition, a legal ad was published in the April 15, 2012 edition of the *Oakland Tribune.* To date, no comments on the proposed GPA have been received.

In 2006, California law clarified the requirements for a jurisdiction's Hazard Mitigation Plan[6]. Specifically, a LHMP must contain:

1. An initial earthquake performance evaluation of public facilities that provide essential services, shelter, and critical governmental functions.

2. An inventory of private facilities that are potentially hazardous, including, but not limited to, multi-unit, soft story, concrete tilt-up, and concrete frame buildings.

3. A plan to reduce the potential risk from private and governmental facilities in the event of a disaster.

The Oakland LHMP meets these three requirements. For item #3, the Oakland LHMP contains 360 strategies and actions to "reduce the potential risk from private and governmental facilities, in the event of a disaster." The City is either already committed to these strategies as existing programs, or is considering, or studying, the strategies (see Appendix B of the LHMP, pages 25-62).

The City's preparation of this LHMP focused on reviewing existing programs, identifying any gaps that may lead to disaster vulnerabilities, in order to work on ways to address these risks through mitigation. Because of Oakland's ongoing disaster planning efforts, and due to the close collaboration with ABAG in its preparation of the 2010 Multi-Jurisdictional LHMP for the region, the priorities which the City assigned the 360 strategies in the 2005 Oakland LHMP are much the same as the priorities for this 2010 Oakland LHMP.

Preparing the 2010 Oakland LHMP was a continuation of a planning process that has been in place since the early 1970s with the adoption of the City's first Seismic and Safety Elements of

6 See California Government Code 65302.6, at lmp://www.leginfo.ca.gov/calaw.lnml.

the General Plan. The City of Oakland is a leader in the regional discussion of hazards, hazards mitigation and disaster recovery. For example, Oakland Vice Mayor Nancy Nadel continues to serve as chair of the ABAG Earthquake and Hazards Outreach Review Committee.

In addition to the Oakland LHMP, the City's Office of Emergency Services recently comprehensively updated both the Emergency Operations Plan (specific tasks and duties for government staff, following a disaster), and the Regional Catastrophic Preparedness Program for Earthquake Incidents (containing plans for debris removal, mass care and sheltering, and volunteer and donations management, following a disaster). Together with the LHMP, these three plans constitute the specific response duties and obligations for the City's staff, in advance of the next major disaster.

ANALYSIS

Taking formal action to amend the *Safety Element* of the Oakland General Plan with the Hazard Mitigation Plan is necessary, in order for Oakland to be eligible for the following benefits:

- A more disaster-resistant and resilient community and region;
- Eligibility for hazard mitigation assistance programs including Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance and Severe Repetitive Loss grant programs[7];
- Eligibility for points under the National Flood Insurance Program's Community Rating System;
- Eligibility for waiver of the 6.25% local match for Public Assistance money after a disaster.

PUBLIC OUTREACH/INTEREST

The City is seeking the input of the public, on both a website[8] and at this and other upcoming public hearings, in reviewing the priorities which the City assigned to the more than 300 strategies for hazards mitigation in the Oakland LHMP. A message inviting interested parties to review the LHMP, and participate in the public hearings, was sent to the membership of the Citizens of Oakland Respond to Emergencies (CORE) program, on the City's website events calendar, and through the City Administrator's weekly bulletin.

[7] See State of California website, http://hazardmitigation.calema.ca.gov/grants
[8] See the City's website: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/OAK032857

COORDINATION

To prepare the Oakland LHMP, staff from the City's Department of Planning, Building, and Neighborhood Preservation (formerly CEDA Strategic Planning Division) worked closely with Renee Domingo and other staff with the Office of Emergency Services of the Oakland Fire Department. The priority rankings were reviewed by staff at the Oakland Fire Department, and by Planning staff.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: n/a

2. COST ELEMENTS OF AGREEMENT/CONTRACT: n/a

3. FISCAL IMPACT:

There is no fiscal impact from approving this resolution, as most of the hazard mitigation strategies in the Oakland LHMP are already included within existing programs currently budgeted by the City's Fire Department or Public Works Agency. However, there is an expected fiscal impact from not approving this resolution: in the event of a major disaster, the City would not be reimbursed by the California Emergency Management Agency, or from the Federal Emergency Management Agency, for all of the costs the City expends for disaster recovery.

California Government Code 8685.9 states:

> Notwithstanding any other provision of law, including Section 8686, for any eligible project, the state share shall not exceed 75 percent of total state eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with the federal Disaster Mitigation Act of 2000 (P.L. 106-390) as part of the safety clement of its general plan adopted pursuant to subdivision (g) of Section 65302. In that situation, the Legislature may provide for a state share of local costs that exceeds 75 percent of total state eligible costs.

SUSTAINABLE OPPORTUNITIES

Economic: By reducing the amount of property damage, and economic and social dislocation resulting from natural and human-caused hazards, the City's *Safety Element* and Oakland's Local Annex to the ABAG Multi-jurisdictional Hazard Mitigation Plan can be expected to reduce the time and money needed to recover from a disaster.

Environmental: The City's efforts to mitigate the future impacts of fires, floods, accidental releases of hazardous materials, and other natural and human-caused disasters can be expected to resuh in improvements in environmental quality and public health.

Social Equity: Oakland's *Safety Element*, and the Oakland LHMP, considers impacts to disadvantaged populations and areas of the City, including the interaction of industrial and residential land uses in West Oakland and the Fruitvale/San Antonio waterfront.

CEQA

The Oakland LHMP complies with the California Environmental Quality Act (CEQA). A "CEQA Addendum" to the 2004 *Safety Element* Negative Declaration and other previous CEQA documents, was prepared for the Oakland LHMP[9]. This is ***Attachment C*** to this report.

The City prepared an Initial Study (dated September 15, 2004), which evaluated the environmental impacts of the *Safety Element* of the General Plan, and the City Council adopted a Negative Declaration and approved the *Safety Element* on November 16, 2004, via Resolution No. 78915 C.M.S. ("2004 ND"). The 2004 ND relied, in part, on the 1998 *Land Use and Transportation Element* EIR and the 2006 *Open Space Conservation and Recreation Element* of the General Plan (OSCAR) Negative Declaration. In addition, the City has prepared and adopted/certified (a) the 2005 *Noise Element* Negative Declaration; and (b) the 2010 *Housing* Element EIR. Collectively these California Environmental Quality Act (CEQA) reviews are known as the "Previous CEQA Documents." No legal actions were filed challenging the Previous CEQA Documents and thus they are presumed valid. In addition, on November 3, 2008, the City Council adopted Standards Conditions of Approval/Uniformly Applied Development Standards, via Ordinance No. 12899.

On a separate and independent basis, the present CEQA analysis, as an Addendum to the Previous CEQA documents, demonstrates that no further/additional CEQA review is required to adopt the Oakland Local Flazard Mitigation Plan. None of the circumstances necessitating preparation of additional CEQA review as specified in CEQA and the CEQA Guidelines, including, without limitation, Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163, are present, in that:

(1) there are no substantial changes to the project that would resuh in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents;

[9] See Planning Commission staff report of 2/1/12, Attachment B.

(2) there are no substantial changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; and

(3) there is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them.

Further, each as a separate and independent basis from the other CEQA findings, the Planning Commission finds the project exempt from CEQA review according to exemptions cited in the CEQA addendum (including CEQA Guidelines Sections 15060, 15061, 15300,15304, 15330 and 15183).

For questions regarding this report, please contact Renee Domingo, Director of Emergency Services, Oakland Fire Department, 510-238-3939; or Devan Reiff, Planner II, Strategic Planning Division, 510-238-3550.

Respectfully submitted,

FRED **B**LACKWELL
Assistant City Administrator

Reviewed by:
Ed Manasse, Strategic Planning Manager

Prepared by:
Devan Reiff, AICP, Planner II
Strategic Planning Division

Attachment A - Agenda report and resolution for the March 20, 2012 City Council action, adopting the Oakland LHMP
Attachment **B** - Oakland Local Hazard Mitigation Plan
Attachment C – CEQA Addendum for the Oakland Local Hazard Mitigation Plan

ATTACHMENT A
TO 6/12/12 CED COMMITTEE AGENDA REPORT

AGENDA REPORT AND RESOLUTION FOR THE MARCH 20, 2012 CITY COUNCIL ACTION ADOPTING THE OAKLAND LOCAL HAZARD MITIGATION PLAN

APPROVED AS TO FORM AND LEGALITY

City Attorney

FILED
OFFICE OF THE CITY CLERK
OAKLAND
2012 MAR -1 AM 9:35

OAKLAND CITY COUNCIL

RESOLUTION NO. 83758 C.M.S.

Introduced by Councilmember _____

RESOLUTION APPROVING THE ASSOCIATION OF BAY AREA GOVERNMENTS' REPORT "TAMING NATURAL DISASTERS" AS OAKLAND'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 Oakland prepares for disasters with understanding that disasters do not recognize city, county, or special district boundaries; and

WHEREAS, the City of Oakland seeks to maintain and enhance both a disaster-resistant city 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 Oakland 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 Oakland 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; and

WHEREAS, the Safety Element of the City of Oakland's General Plan, known as "Protect Oakland," was adopted by Council Resolution No, 78915 C.M.S. on November 16, 2004, and was intended to serve as the foundation for Oakland's Local Hazard Mitigation Plans; and

WHEREAS, The City prepared an initial Study (dated September 15, 2004), which evaluated the environmental impacts of the *Safety Element* of the General Plan, and the City Council adopted a Negative Declaration and approved the *Safety Element* on November 16, 2004, via Resolution No. 78915 C.M.S. ("2004 ND"). The 2004 ND relied, in part, on the 1998 *Land Use and Transportation Element* EIR and the 2006 *Open Space Conservation and Recreation Element* of the General Plan (OSCAR) Negative Declaration. In addition, the City has prepared and adopted/certified (a) the 2005 *Noise Element* Negative Declaration; and (b) the 2010 *Housing* Element EIR. Collectively these California Environmental Quality Act (CEQA) reviews are known as the "Previous CEQA Documents." No legal actions were filed challenging

the Previous CEQA Documents and thus they are presumed valid. In addition, on November 3, 2008, the City Council adopted Standards Conditions of Approval/Uniformly Applied Development Standards, via Ordinance No. 12899 C.M.S.; and

WHEREAS, the City prepared an Addendum to the foregoing CEQA documents to evaluate the potential impacts of the Oakland Local Hazard Mitigation Plan; and

WHEREAS, the Addendum demonstrates that no further/additional CEQA review is required to adopt the Oakland Local Hazard Midgation Plan; specifically, none of the circumstances necessitating preparation of additional CEQA review as specified in CEQA and the CEQA Guidelines, including, without limitation, Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163, are present, in that: (1) there are no substantial changes to the project that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; (2) there are no substantial changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; and (3) there is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects ofithe project, but the City declines to adopt them; and

WHEREAS, each as a separate and independent basis from the other CEQA findings, the City Council finds the project exempt from CEQA review, according to exemptions cited in the CEQA addendum (including the exemptions in CEQA Guidelines Section 15060, 15061, 15300,15304, 15330 and 15183); and

WHEREAS, Oakland's Local Hazard Mitigation Plan, augmented by ABAG's regionally developed strategies, and including Oakland-specific maps and analysis, has been incorporated as a City of Oakland Annex into ABAG's multijurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area; now, therefore be it

RESOLVED: That the City of Oakland adopts, and adapts with its Local Hazard Mitigation Plan Annex, ABAG's multi-jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area as Oakland's Local Hazard Mitigation Plan; and be it

FURTHER RESOLVED: That the City of Oakland commits to continuing to take those actions and initiating further actions, as appropriate, as identified in the City of Oakland Local Hazard Mitigation Plan Annex to the ABAG multi-jurisdictional Local Hazard Mitigation Plan; and be it

FURTHER RESOLVED: the City of Oakland accepts the Oakland Planning Commission's approval of the CEQA Addendum prepared for the Oakland Hazard Mitigation Plan, finding no further environmental review is required for the adoption of the Local Hazard Mitigation Plan, because: (1) there are no substantial changes to the project or changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; (2) there is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them; and be it

FURTHER RESOLVED: each as a separate and independent basis from the other CEQA findings, the City Council finds the project exempt from CEQA review according to exemptions cited in the CEQA addendum (including CEQA Guidelines Sections 15060, 15061, 15300,15304, 15330 and 15183); and be it

FURTHER RESOLVED: That the City of Oakland adopts the Local Hazard Mitigation Plan, together with its list of mitigation strategies, attached hereto as Exhibit A, as the Implementation Appendix of the *Safety Element* of the Oakland General Plan.

IN COUNCIL, OAKLAND, CALIFORNIA, MAR 20 2012, 20_____

PASSED BY THE FOLLOWING VOTE:

AYES - BROOKS, BRUNNER, DE LA FUENTE, KAPLAN, KERNIGHAN, NADEL, SCHAAF and PRESIDENT REID – 8

NOES - 0

ABSENT - 0

ABSTENTION - 0

ATTEST: LaTonda Simmons

LaTonda Simmons
City Clerk and Clerk of the Council
of the City of Oakland, California

CITY OF OAKLAND

AGENDA REPORT

TO: DEANNA J. SANTANA
CITY ADMINISTRATOR

FROM: Fred Blackwell

SUBJECT: Local Hazard Mitigation Plan

DATE: Febmary 16, 2012

City Administrator Approval Deanna J. Santana

Date 2/21/12

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

Staff recommends that the City Council Adopt A Resolution Approving The Association Of Bay Area Governments' Report "Taming Natural Disasters" As Oakland's Local Hazard Mitigation Plan

EXECUTIVE SUMMARY

The federal Disaster Mitigation Act of 2000 requires all cities, counties, and special districts to adopt a Local Hazard Mitigation Plan to receive disaster mitigation funding from FEMA. The City of Oakland is updating its 2005 Local Hazard Mitigation Plan ("Oakland LHMP"), in consultation with staff at the Association of Bay Area Governments (ABAC), who produced "Taming Natural Disasters: A Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area" in 2010. On February 1, 2012, the Planning Commission held a duly noticed public hearing and unanimously made a recommendation to the City Council to adopt ABAC's report, "Taming Natural Disasters," as Oakland's Local Hazard Mitigation Plan; and that the Oakland LHMP be included by reference to the *Safety Element* of the Oakland General Plan.

The Oakland LHMP is one part of Oakland's emergency and disaster planning efforts—also being considered for approval at the same Public Safety Committee hearing is the Catastrophic Earthquake Incident Annexes, which detail the City's expected actions for debris removal, mass care and sheltering, and other functions of disaster recovery.

The Oakland LHMP is being heard by the Public Safety Committee, the standard oversight body for actions taken by the City to prepare for, and recover from, a major disaster. A separate, future action will bring a General Plan Amendment to the Community and Economic Development Committee of City Council, making the Oakland LHMP an implementation annex of the *Safety Element* of the Oakland General Plan. In order to be eligible for disaster assistance

funding from the U.S. Federal Emergency Management Agency (FEMA), there is a deadline of *March 24, 2012* for cities to adopt their Local Hazard Mitigation Plans.

OUTCOME

If the Council adopts this resolution, the City will validate a key component of its disaster planning. The Hazard Mitigation Plan must be adopted by the City by March 24, 2012 to meet deadlines established by the Federal Emergency Management Agency. This is the first step in enabling the City to become eligible for disaster recover funds. In addition, the City will need to amend the *Safety Element* of the General Plan to be fully eligible for funding. Because the March 24 deadline did not allow the City the time to follow State notification laws for amending the *Safety Element,* the State has indicated that we may preserve our ability to become eligible for funding by adopting the Hazard Mitigation Plan now, and returning to the Planning Commission and City Council with a formal General Plan Amendment in the coming months.

BACKGROUND/LEGISLATIVE HISTORY

Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. Hazard mitigation is most effective when a long-term plan is developed before a disaster occurs. A hazard mitigation plan identifies the hazards a community or region may face, assesses their vulnerability to the hazards and identifies specific actions that can be taken to reduce the risk from the hazards. The Federal Disaster Mitigation Act of 2000 (DMA 2000), which reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur, outlines a process which cities, counties, and special districts can follow to develop a Local Hazard Mitigation Plan. Development of this plan is a requirement for certain benefits from the California Emergency Management Agency EMA and FEMA, following a disaster. An LHMP has to be approved by FEMA in order for a local government to be eligible to receive federal hazard mitigation project funding.

To assist local governments in meeting this requirement, ABAG is the lead agency on the multi-jurisdictional Local Hazard Mitigation Plan ("MJ-LHMP") for the San Francisco Bay Area. Because Oakland participated in the drafting of the MJ-LHMP, the City can now adopt and use all, or part, of this plan, in lieu of preparing an original Local Hazard Mitigation Plan. The MJ-LHMP has been adopted by ABAG, and over 100 other local jurisdictions are in the process of updating their Hazard Mitigation Plans[1]. For background, Oakland adopted the prior LHMP in 2005, under Council Resolution 79683 C.M.S.[2]

[1] See ABAG's website for Hazard Mitigation, http://quake.abag.ca.gov/mitigation/.
[2] Available at: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/OAK032857.

"Disasters" and "Hazard Mitigation"

This section excerpts from the text of ABAG's MJ-LHMP, 'Taming Natural Disasters':

The most significant of hazards affecting the Bay Area, based on our past history, as well as on the State Hazard Mitigation Plan, are related lo:

- Earthquakes (surface faulting, ground shaking, liquefaction, landslides, and tsunamis), or
- Weather (flooding, landslides, wildfires, drought, and climate change).

The focus of the Multi-Jurisdicfional Local Hazard Mitigation Plan (MJ-LHMP) is on natural hazards, that is, natural occurrences that can pose a risk of injury, loss of hfe, or damage to property. Other hazards relate to man-made conditions, including releases of hazardous materials, dam failures, energy shortages, and weapons of mass destruction. These other hazards are only addressed in this plan as they related o earthquake and weather-related hazards. The only one of these additional hazards that is readily mapped and analyzed is dam failure.

What are Disasters and How are They Related to Hazard Mitigation?

A disaster is a natural or man-made emergency whose response needs exceed available resources. When local government resources are exceeded, the Califomia Governor's Office of Emergency Services (State OES) is contacted and the Governor is requested to declare a State Disaster. When State resources are exceeded, State OES contacts the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) and the President is requested to declare a National Disaster. This Presidential Declaration triggers funding resources for the public, the state, and local governments to use for clean-up, repair, recovery, and mitigation.

To deal with disasters, projects can be undertaken to prevent, or lessen, the impacts of future incidents, reducing the need for larger and larger response capability. For example, homes can be moved from areas suffering repeated floods. Buildings and infrastructure can be built to reduce expected damage in earthquakes. Wood shakes on homes in woodland areas can be replaced with asphalt shingles or file. These actions are called *mitigation.* More specifically, the Stafford Act defines mitigation as "*any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.*"[3] As mitigation activities are undertaken, the risks associated with disasters decrease.

[3] Source – 44 CFR Section 20L2 pertaining to Section 322 of the Stafford Act, 42 U.S.C. 5165.

Goal of the MJ-LHMP and the Oakland Annex:

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

Commitments and strategies for disaster mitigation

The overall goal of the MJ-LHMP is being addressed by asking all local governments in the Bay Area to adopt formal resolutions in support of the following eight *commitments areas*. These commitments are not organized by hazard, but by the types of services supplied either directly, or indirectly, by local governments. Chapters in the report, "Taming Natural Disasters" accompany each of the commitment areas, outlining the problem and highlighting mitigation activities that are currently taking place to address the problem. With this organization, each of the Bay Area's cities and counties should find ways to address these major commitments by reducing identified risks. *Together, we are committed to increasing the disaster resistance of the infrastructure, health, housing, economy, government services, education, environment, and land use systems in the Bay Area.*

"Taming Natural Disasters" provides 360 strategies for hazard mitigation, organized into the following categories:

1. Infrastructure
   Bay Area transportation and utility facilities and networks are vital lifelines during and following disasters, as well as in the functioning of our region and its economy.
2. Health
   Bay Area facilities, networks, and systems providing care of sick persons and those with special needs must be resilient after disasters, for these systems will need to care for additional numbers of injured persons.
3. Housing
   Bay Area residents need to have safe and disaster-resistant housing that is architecturally diverse and serves a variety of household sizes and incomes.
4. Economy
   Safe, disaster-resilient, and architecturally diverse downtown commercial areas, business and industrial complexes, and office buildings are essential to the overall economy of the Bay Area.
5. Government Services
   Bay Area city and county governments, as well as community services agencies, provide essential services during and immediately following disasters, as well as critical functions during recovery, that need to be resistant to disasters.

6. Education
   Safe and disaster-resistant school, education, and childcare-related facilities are critical to the safety of our children, as well as to the quality of life of Bay Area families.
7. Environment
   Disaster resistance needs to further environmental sustainability, reduce pollution, strengthen agriculture resiliency, and avoid hazardous material releases in the Bay Area.
8. Land Use
   Land use change needs to be accompanied by a respect for hazardous areas and facilities, as well as recognize the interconnected nature of the Bay Area.[4]

Oakland's Local Hazard Mitigation Plan

Oakland's Local Hazard Mitigation Plan (LHMP) ranks each of the 360 strategies[5] provided in the "Taming Natural Disasters" Report, using the following scale:

- Existing Program. Mitigation strategy is an existing program for the selected jurisdiction and is adequately funded.
- Existing Program, Underfunded. Mitigation strategy is an existing program for the selected jurisdiction, but additional funds are needed to fully implement the strategy (new in 2009-2010).
- Very High. This is an unofficial program which will be adopted by the local government immediately upon adoption of its annex.
- High. The jurisdiction has plans to implement the strategy as soon as funding and resources allow; funding currently being sought.
- Moderate. The jurisdiction has plans to implement the strategy as soon as funding and resources allow; but funding is not currently being sought.
- Under Study. Implementation of this strategy is actively under study by a specific department or agency within the jurisdiction; not just to be studied at a future date.
- N/A. This strategy is not applicable, not appropriate, or not cost-effective.
- NYC. This strategy has never been considered by the jurisdiction.

The City's preparation of this 2010 Annex to the MJ LHMP focused on reviewing pre-existing programs, identifying any gaps that may lead to disaster vulnerabilities, in order to work on ways to address these risks through mitigation. Because of Oakland's ongoing disaster planning efforts, and due to the close collaboration with ABAG in its preparation of the 2010 MJ LHMP for the region, the priorities which the City assigned the 360 strategies in the 2005 Oakland LHMP are much the same as the priorities this 2010 Oakland LHMP.

[4] See http://quake.abag.ca.gov/wp-content/documents/ThePlan-Chapters-Intro.pdf, pages 1-4.
[5] See pages 26-65 of the Oakland Local Hazard Mitigation Plan

ANALYSIS

There is a regulatory setting for disaster planning and adopting a hazard mitigation plan.

In 2006, State law clarified the requirements for a jurisdiction's Hazard Mitigation Plan[6]. Specifically, a LHMP must contain:

1. An initial earthquake performance evaluation of public facilities that provide essential services, shelter, and critical governmental functions.

2. An inventory of private facilities that are potentially hazardous, including, but not limited to, multiunit, soft story, concrete tilt-up, and concrete frame buildings.

3. A plan to reduce the potential risk from private and governmental facilities in the event of a disaster.

The Oakland LHMP meets these three requirements. For item #3, the Oakland LHMP contains 360 strategies and actions to "reduce the potential risk from private and governmental facilities, in the event of a disaster." The City is either already committed to these strategies as existing programs, or is considering, or studying, the strategies (see Appendix B of the LHMP, pages 25-62).

Preparing the 2010 Oakland annex to the ABAG multi-jurisdictional Local Hazard Mitigation Plan is a continuation of a planning process that has been in place since the early 1970s with the adoption of the City's first Seismic and Safety Elements of the General Plan. The City of Oakland is a leader in the regional discussion of hazards, hazards mitigation and disaster recovery. For example, Oakland Councilmember Nancy Nadel continues to serve as chair of the ABAG Earthquake and Hazards Outreach Review Committee.

In addition to the Oakland LHMP, the City's Office of Emergency Services recently comprehensively updated both the Emergency Operations Plan (specific tasks and duties for government staff, following a disaster), and the Regional Catastrophic Preparedness Program for Earthquake Incidents (containing plans for debris removal, mass care and sheltering, and volunteer and donations management, following a disaster). Together with the LHMP, these three plans constitute the specific response duties and obligations for the City's staff, in advance of the next major disaster.

State law gives jurisdictions the opportunity to make their Local Hazard Mitigation Plan a part of a Safety Element of the General Plan. Oakland's *Safety Element*, adopted in 2004, is the primary policy document for the City's disaster planning efforts (see "General Plan

6 See California Government Code 65302.6, at http://www.leginfo.ca.gov/calaw.html.

Analysis" section, below). The action described in this report is not a General Plan Amendment; rather, it is a recommendation that the City Council adopt the Oakland LHMP by reference to the *Safety Element*. At a future action in the coming months (2012), the City will prepare a General Plan Amendment for a hearing and recommendation by the Planning Commission to the City Council to make the Oakland LHMP and its 360 strategies for disaster mitigation an incorporated appendix to the *Safety Element* of the General Plan - effectively updating the *Safety Element* with current City actions, and best practices for disaster planning. The California Emergency Management Agency has given the City instruction on this "two-step" adoption process. This will also give the public further opportunities to consider the priorities and strategies for hazards mitigation in the City.

Local governments who adopt a hazard mitigation plan may be eligible for the following benefits:

- A more disaster-resistant and resilient community and region;
- Eligibility for hazard mitigation assistance programs including Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance and Severe Repetitive Loss grant programs[7];
- Eligibility for points under the National Flood Insurance Program's Community Rating System;
- Eligibility for waiver of the 6.25% local match for Public Assistance money after a disaster.

PUBLIC OUTREACH/INTEREST

The City is seeking the input of the public, on both a website[8] and at this and other upcoming public hearings, in reviewing the priorities which the City assigned to the more than 300 strategies for hazards mitigation in the Oakland LHMP. A message inviting interested parties to review the LHMP, and participate in the public hearings, was sent to the membership of the Citizens of Oakland Respond to Emergencies (CORE) program, and also to the mailing lists of the City Council members.

COORDINATION

To prepare the Oakland LHMP, staff from the City's Department of Planning and Neighborhood Preservation (formerly CEDA Strategic Planning Division) worked closely with Renee

[7] See State of California website, http://hazardmitigation.calema.ca.gov/grants
[8] See the City's website: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/OAK032857

Domingo, and her team, at the Office of Emergency Services of the Oakland Fire Department. The priority rankings were reviewed by staff at the Oakland Fire Department, and by CEDA staff

COST SUMMARY/IMPLICATIONS

See Fiscal Impact section of this report.

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: n/a

2. COST ELEMENTS OF AGREEMENT/CONTRACT: n/a

3. FISCAL IMPACT:

There is no fiscal impact from approving this resolution, as most of the hazard mitigation strategies in the Oakland LHMP are already included within existing programs currently budgeted by the City's Fire Department or Public Works Agency. However, there is an expected fiscal impact from not approving this resolution: in the event of a major disaster, the City would not be reimbursed by the California Emergency Management Agency, or from the Federal Emergency Management Agency, for all of the costs the City expends for disaster recovery.

California Government Code 8685.9 states:

> Notwithstanding any other provision of law, including Section 8686, for any eligible project, the state share shall not exceed 75 percent of total state eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with the federal Disaster Mitigation Act of 2000 (P.L. 106-390) as part of the safety element of its general plan adopted pursuant to subdivision (g) of Section 65302. In that situation, the Legislature may provide for a state share of local costs that exceeds 75 percent of total state eligible costs.

SUSTAINABLE OPPORTUNITIES

Economic: By reducing the amount of property damage, and economic and social dislocation resulting from natural and human-caused hazards, the City's *Safety Element* and Oakland's Local Annex to the ABAG Multi-jurisdictional Hazard Mitigation Plan can be expected to reduce the time and money needed to recover from a disaster.

Environmental: The City's efforts to mitigate the future impacts of fires, floods, accidental releases of hazardous materials, and other natural and human-caused disasters can be expected to result in improvements in environmental quality and public health.

Social Equity: Oakland's *Safety Element*, and the Oakland LHMP, considers impacts to disadvantaged populations and areas of the City, including the interaction of industrial and residential land uses in West Oakland and the Fruitvale/San Antonio waterfront.

CEQA

The Oakland LHMP complies with the Califomia Environmental Quality Act (CEQA). A "CEQA Addendum" to the 2004 *Safety Element* Negative Declaration and other previous CEQA documents, was prepared for the Oakland LHMP[9].

The City prepared an Initial Study (dated September 15, 2004), which evaluated the environmental impacts of the *Safety Element* of the General Plan, and the City Council adopted a Negative Declaration and approved the *Safety Element* on November 16, 2004, via Resolution No. 78915 C.M.S. ("2004 ND"). The 2004 ND relied, in part, on the 1998 *Land Use and Transportation Element* EIR and the 2006 *Open Space Conservation and Recreation Element* of the General Plan (OSCAR) Negative Declaration. In addition, the City has prepared and adopted/certified (a) the 2005 *Noise Element* Negative Declaration; and (b) the 2010 *Housing* Element EIR. Collectively these Califomia Environmental Quality Act (CEQA) reviews are known as the "Previous CEQA Documents." No legal actions were filed challenging the Previous CEQA Documents and thus they are presumed valid. In addition, on November 3, 2008, the City Council adopted Standards Conditions of Approval/Uniformly Applied Development Standards, via Ordinance No. 12899.

On a separate and independent basis, the present CEQA analysis, as an Addendum to the Previous CEQA documents, demonstrates that no hirther/additional CEQA review is required to adopt the Oakland Local Hazard Mhigation Plan. None of the circumstances necessitating preparation of additional CEQA review as specified in CEQA and the CEQA Guidelines, including, without limitation, Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163, are present, in that:

(1) there are no substantial changes to the project that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents;

[9] See Planning Commission staff report of 2/1/12, Attachment B.

(2) there are no substantial changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; and

(3) there is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them.

Further, each as a separate and independent basis from the other CEQA findings, the Planning Commission finds the project exempt from CEQA review according to exemptions cited in the CEQA addendum (including CEQA Guidelines Sections 15060, 15061, 15300,15304, 15330 and 15183).

For questions regarding this report, please contact Renee Domingo, Director of Emergency Services, Oakland Fire Department, 510-238-3939; or Devan Reiff, Planner II, Strategic Planning Division, 510-238-3550.

Respectfully submitted,

FRED BLACKWELL
Assistant City Administrator

Reviewed by:
Ed Manasse, Strategic Planning Manager

Prepared by:
Devan Reiff, AICP, Planner II
Strategic Planning Division

Item: _____
Public Safety Committee
March 13, 2012

APPROVED AS TO FORM AND LEGALITY

City Attorney

FILED
OFFICE OF THE CITY CLERK
OAKLAND
2012 MAR -1 AM 9:35

OAKLAND CITY COUNCIL

RESOLUTION NO. _____ C.M.S.

Introduced by Councilmember _____

RESOLUTION APPROVING THE ASSOCIATION OF BAY AREA GOVERNMENTS' REPORT "TAMING NATURAL DISASTERS" AS OAKLAND'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 Oakland prepares for disasters with understanding that disasters do not recognize city, county, or special district boundaries; and

WHEREAS, the City of Oakland seeks to maintain and enhance both a disaster-resistant city 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 Oakland 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 Oakland 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; and

WHEREAS, the Safety Element of the City of Oakland's General Plan, known as "Protect Oakland," was adopted by Comcil Resolution No, 78915 C.M.S. on November 16, 2004, and was intended to serve as the foundation for Oakland's Local Hazard Mitigation Plans; and

WHEREAS, The City prepared an hitial Study (dated September 15, 2004), which evaluated the environmental impacts of the *Safety Element* of die General Plan, and the City Council adopted a Negative Declaration and approved the *Safety Element* on November 16, 2004, via Resolution No. 78915 C.M.S. ("2004 ND"). The 2004 ND relied, in part, on the 1998 *Land Use and Transportation Element* EIR and the 2006 *Open Space Conservation and Recreation Element* of the General Plan (OSCAR) Negative Declaration. In addition, the City has prepared and adopted/certified (a) the 2005 *Noise Element* Negative Declaration; and (b) the 2010 *Housing* Element EIR. Collectively tiese Califomia Environmental Quality Act (CEQA) reviews are known as the "Previous CEQA Documents." No legal actions were filed challenging

the Previous CEQA Documents and thus they are presumed valid. In addition, on November 3, 2008, the City Council adopted Standards Conditions of Approval/Uniformly Applied Development Standards, via Ordinance No. 12899 C.M.S.; and

WHEREAS, the City prepared an Addendum to the foregoing CEQA documents to evaluate the potential impacts of the Oakland Local Hazard Mitigation Plan; and

WHEREAS, the Addendum demonstrates that no further/additional CEQA review is required to adopt the Oakland Local Hazard Mitigation Plan; specifically, none of the circumstances necessitating preparation of additional CEQA review as specified in CEQA and the CEQA Guidelines, including, without limitation, Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163, are present, in that: (1) there are no substantial changes to the project that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; (2) there are no substantial changes in circumstances that would result in new significant environmental impacts or a substanfial increase in the severity of significant impacts already identified in the Previous CEQA Documents; and (3) there is no new information of substantial importance, which was not known and could hot have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them; and

WHEREAS, each as a separate and independent basis from the other CEQA findings, the City Council finds the project exempt from CEQA review, according to exemptions cited in the CEQA addendum (including the exemptions in CEQA Guidelines Section 15060, 15061, 15300,15304, 15330 and 15183); and

WHEREAS, Oakland's Local Hazard Mitigation Plan, augmented by ABAG's regionally developed strategies, and including Oakland-specific maps and analysis, has been incorporated as a City of Oakland Annex into ABAG's multijurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area; now, therefore be it

RESOLVED: That the City of Oakland adopts, and adapts with its Local Hazard Mitigation Plan Annex, ABAG's multi-jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area as Oakland's Local Hazard Mitigation Plan; and be it

FURTHER RESOLVED: That the City of Oakland commits to continuing to take those actions and initiating further actions, as appropriate, as identified in the City of Oakland Local Hazard Mitigation Plan Annex to the ABAG multi-jurisdictional Local Hazard Mitigation Plan; and be it

FURTHER RESOLVED: the City of Oakland accepts the Oakland Planning Commission's approval of the CEQA Addendum prepared for the Oakland Hazard Mitigation Plan, finding no further environmental review is required for the adoption of the Local Hazard Mitigation Plan, because: (1) there are no substantial changes to the project or changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; (2) there is no new information of substantial importance, which was not known and could hot have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them; and be it

FURTHER RESOLVED: each as a separate and independent basis from the other CEQA findings, the City Council finds the project exempt from CEQA review according to exemptions cited in the CEQA addendum (including CEQA Guidelines Sections 15060, 15061, 15300,15304, 15330 and 15183); and be it

FURTHER RESOLVED: That the City of Oakland adopts the Local Hazard Mitigation Plan, together with its list of mitigation strategies, attached hereto as Exhibit A, as the Implementation Appendix of the *Safety Element* of the Oakland General Plan.

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 20_____

PASSED BY THE FOLLOWING VOTE:

AYES - BROOKS, BRUNNER, DE LA FUENTE, KAPLAN, KERNIGHAN, NADEL, SCHAAF and PRESIDENT REID

NOES -

ABSENT -

ABSTENTION -

ATTEST:_____
LaTonda Simmons
City Clerk and Clerk of the Council
of the City of Oakland, California

Exhibit A-

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

CITY OF OAKLAND

Table of Contents

Introduction

This Local Hazard Mitigation Plan is to be an amendment to the City's Safety Element of the General Plan. It serves an annex to the Association of Bay Area Governments (ABAG) multi-jurisdictional Local Hazard Mitigation Plan. ABAG's website explains Hazard Mitigation as:

> Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. Hazard mitigation is most effective when a long-term plan is developed before a disaster occurs. A hazard mitigation plan identifies the hazards a community or region faces, assesses their vulnerability to the hazards and identifies specific actions that can be taken to reduce the risk from the hazards. The Federal Disaster Mitigation Act of 2000 (DMA 2000) outlines a process which cities, counties, and special districts can follow to develop a Local Hazard Mitigation Plan. Development of this plan is a requirement for certain benefits from CalEMA and FEMA.
>
> To assist local governments in meeting this requirement, ABAG is the lead agency on the multi-jurisdictional Local Hazard Mitigation Plan (MJ-LHMP) for the San Francisco Bay Area. Cities and counties can adopt and use all or part of this multi-jurisdictional plan in lieu of preparing all or part of a Local Hazard Mitigation Plan themselves. However, they need to have participated in the development of the multi-jurisdictional plan to adopt it. The plan was originally adopted in 2005. The 2010 plan has been adopted by ABAG and local jurisdictions are in the process of updating their annexes.[1]

City Geography and Background

Founded in 1852, the City of Oakland (City) is located on the eastern shore of the San Francisco Bay. In 2010, Oakland's population was 390,724[2]. Oakland is the third-largest city in the Bay Area, after San Jose and San Francisco, and the eighth-largest city in California[3]. Oakland is the county seat of Alameda County.

The city has a total area of 78 mi^2 (202 km^2): 56 mi^2 (145 km^2) or 72% of it is land, and 22 mi^2 (57 km^2) or 28% of it is water. The City's elevation is 42 feet above sea level. The city is bordered on the north by the cities of Berkeley and Emeryville and to the south by the city of San Leandro. To the west and across the estuary channel is the city of Alameda and to the east, Contra Costa County. Oakland is the only city in the United States with a natural saltwater lake wholly contained within its border (115-acre Lake Merritt).

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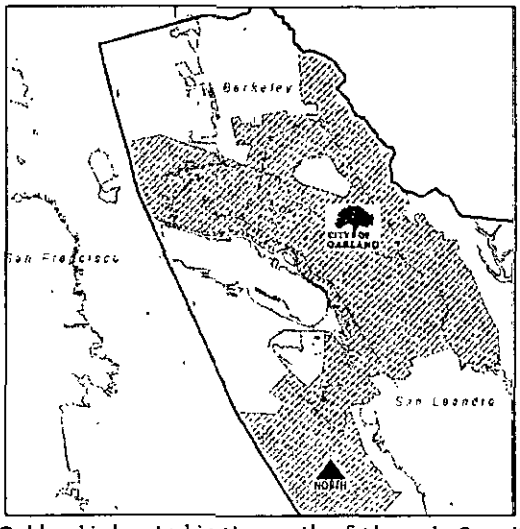
[1] See ABAG's website, http://quake.abag.ca.gov/mitigation/

[2] U. S. Census Bureau (2010), *Redistricting Data (Public Law 94-171) Summary File*, Table P1

[3] CA Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2010-2011



Oakland is located in the north of Alameda County

The City is one of the most ethnically diverse places in the United States—a City with a population that is 28% African American, 25% Hispanic, and 17% Asian.[4]

In 2010-2011, the City's budget was approximately $440 million. The City employs 3,800 full-time people. The City provides local police services and local fire services. In addition, the Fire Services Agency receives $1.85 million annually in revenues from the Oakland Wildfire Prevention Assessment District.

The Port of Oakland, began in 1927, operates the Port and Oakland International Airport, and also owns additional waterfront property that it leases as commercial real estate. The Port Board consists of seven members nominated by the Mayor and appointed by the City Council. The Port employs 465 people and has an operating budget for FY 2010-2011 of $258 million.[5]

The Regional Planning Process

The City of Oakland participated in various ABAG workshops, conferences, and meetings during the development of the multi-jurisdictional Local Hazard Mitigation Plan, including:

- 2008-9 ABAG Regional Planning Committee meetings
- 2008 "Sewer Smart" Summit
- ABAG Executive Board meeting (regular attendance)
- Staff attendance at 2009 ABAG Housing and Outreach Committee meetings
- ABAG Lifeline and Hazard Review Committee standing meetings
- Various City/County Workshops
- Commitment letter on file with ABAG on May 21 ,2009
- Provided critical facilities data on June 30, 2009
- Strategies worksheet prepared September 30, 2009
- Long Term Recovery planning meetings (ABAG)

For more information on these meetings and for rosters of attendees, please see Appendix A and H in the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan 2010 (MJ-LHMP).[6] In

[4] U. S. Census Bureau (2010), *Redistricting Data (Public Law 94-171) Summary File*, Table P1
[5] Port of Oakland, "2010 - 2011 Adopted Operating and Capital Budgets," www.portofoakland.com/pdf/2010_pbs_03.pdf.
[6] See ABAG's website, http://quake.abag.ca.gov/mitigation.

addition, the City of Oakland has provided written and oral comments on the multi-jurisdictional plan and provided information on facilities that are defined as "critical" to ABAG.

The Local Planning Process

Preparing the 2010 Oakland annex to the multi-jurisdictional Local Hazard Mitigation Plan is a continuation of a planning process that has been in place since the early 1970s with the adoption of the City's first Seismic and Safety elements to the City's General Plan. The City of Oakland is a leader in the regional discussion of hazards, hazards mitigation and disaster recovery. For example, Oakland Councilmember Nancy Nadel continues to serve as chair of the ABAG Earthquake and Hazards Outreach Review Committee.

Participating senior staff in the 2010 MJ LHMP update of Oakland priorities were:

- Renee Domingo, Manager of the Oakland Fire Department's Office of Emergency Services, with support from her staff;
- Leroy Griffin, Assistant Fire Marshall, Oakland Fire Department
- Eric Angstadt, Deputy Director of the Oakland Community and Economic Development Agency, and his staff
- Ray Derania, Oakland Building Official, and his staff

Office of Emergency Services regularly participates in a wide variety of federal, state, regional and local groups, task forces and workshops on disaster preparation and recovery. See Exhibit A to this Annex for a list of meetings where City of Oakland management and staff have participated.

In 2004, the City's *Safety Element* to its General Plan was updated, and includes a discussion of:

- public safety: including violent crime and terrorism;
- geologic hazards: including earthquake fault displacement, ground shaking, liquefaction, subsidence and settlement, slope instability or landslide hazards, erosion, soils, structural hazards, transportation facilities, and utility systems;
- fire hazards: including fire-fighting response, water supply, structural fires, wildland fires, roadway standards and emergency routes;
- hazardous materials: including business plan program, CalARP program, UST program, aboveground storage tank program, hazardous waste tiered permitting program, household hazardous water management, toxic air contaminants, contaminated sites and brownfields, transportation, pipelines, emergency response, and zoning;
- flooding hazards: including storm-induced flooding, tsunamis, seiches, dam failure, and sea-level rise.

In addition to the policies and actions outlined in the *Safety Element*, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA); since 1988, CEQA

requires mitigation for identified natural hazards. Additional hazard mitigation policies from the *Housing Element* and the *Land Use and Tronsportotion Element* of the General Plan also protect residents and businesses in Oakland. The City has been a model of disaster mitigation planning, and was designated one of the first Disaster Resistant Communities in the United States.

The City's preparation of this 2010 Annex to the MJ LHMP focused on reviewing these pre-existing programs and strategies, identifying any gaps that may lead to disaster vulnerabilities, in order to work on ways to address these risks through mitigation. This effort has been minimal because of Oakland's close collaboration with ABAG in its preparation of the 2010 MJ LHMP for the region.

The City adopted a Soft Story survey by ordinance (12966 C.M.S.) in July, 2009. The new ordinance mandates that owners of certain residential buildings provide simple and low-cost information to the City about their building's ground-fioor structural supports (dimensions, materials, photographs, fioor plan). It does not require any type of structural retrofit. To promote participation in the program, the City sent certified letters to owners of record to approximately 1,500 apartment buildings of 5 or more units that had been previously identified as potentially having soft stories (large open spaces on the ground fioor). The Building Official and other staff also made a presentation to the Rental Housing Association of Northern Alameda County (RHANAC) at their annual workshop and information fair, and ran an article in their newsletter; RHANAC also sent letters to their members.

To encourage homeowners to complete life- and property-saving retrofits, City Council approved Oakland Municipal Code Chapter 15.30.050, which incorporated basic retrofit standards into the City's Municipal Code and established a fiat retrofit permit fee of $250. Currently, any homeowner of a one- to-two story, single family or duplex residence who desires to retrofit for seismic safety is eligible for the $250 flat retrofit permit fee, provided the retrofit plan meets the current seismic strengthening standards.

For owner-occupied, low-income households, the City's Redevelopment Agency offers Seismic Safety Incentive Program grants for the completion of seismic retrofit repairs.[7]

In addition to these two earthquake hazards mitigation programs, Oakland *Emergency* Services staff still participate in the quarterly *Emergency* Management Board meetings to coordinate with local stakeholders; as well as ABAG's Lifelines Infrastructure and Hazards Review Committee.

The resolution adopting this annex to ABAG's multi-jurisdictional LHMP is expected to be on the City Council agenda in March of 2012. Additionally, all of the mitigation strategies identified in this 2010 Annex will be integrated into those contained in the City's *Safety Element* of the General Plan, as an "implementation annex" to the *Safety Element*. This action requires a

[7] This program is administered by Lloyd Ware of the City's Housing and Community Development section.

resolution of the City Council, and will be based on a recommendation from the Oakland Planning Commission.

The City of Oakland has made strides in comprehensive emergency management planning through the development of the federal and state compliant Local Hazard Mitigation Plan (LHMP), Emergency Operations Plan (EOP) and Regional Catastrophic Preparedness Grant Program (RCPGP) Annexes. The LHMP assists in the mitigation of future disasters by identifying risk vulnerabilities and measures to alleviate the impact of hazards. The EOP is an all-hazards emergency preparedness, response and short-term recovery plan designed to: serve as a basis for effective response to any hazard threatening Oakland using capabilities for the protection of citizens from the effects of disasters; facilitate the integration of mitigation in response and recovery activities; and facilitate coordination with cooperating private or volunteer organizations and County, State and Federal government in disaster situations. The RCPGP Annexes are specialized addendums to the EOP which focus on the City's response to the impact of a catastrophic earthquake on mass care and sheltering, mass transportation and evacuation, donations management, volunteer management, mass fatalities, and debris management.

Each emergency plan follows the principles and processes outline in the National Incident Management System (SEMS), California Standardized Emergency Management System (SEMS), and the Incident Command System (ICS). This provides a consistent, flexible and adjustable framework for the City to work to manage disasters regardless of their cause, size, location or complexity across all phases of emergency management: preparedness, response, recovery and mitigation.

Public Meetings

Residents and interested parties will have an opportunity to review this Annex, and the City's priorities for mitigation, weeks in advance of the anticipated summer Oakland Planning Commission public hearing, considering adoption of the Annex. The public review period will effectively last from January 2012-March 2012, with notices for public hearings and opportunities to comment via the City's website, and a notice in the Oakland Tribune. There will be a second public hearing during the winter of 2012, before the Public Safety Committee of the City Council. The Oakland City Council will consider a resolution to adopt the Oakland 2010 Annex to the MJ LHMP in a third public hearing in March 2012. The mitigation strategies will become an implementation amendment of the Safety Element of the Oakland General Plan. Copies of the City of Oakland website, and the Oakland Tribune notice, are Exhibit C of this Oakland 2010 Annex.

Past Occurrences of Disasters (natural and human-induced)

The City of Oakland has experienced a number of different disasters over the last 50 years, including numerous earthquakes, floods, droughts, wildfires, energy shortages, civil disturbances, landslides, and severe storms.

The Oakland Hills Firestorm of 1991 (the "Oakland-Berkeley Tunnel Fire"), for example, ranks as one of the worst wildland-urban firestorm disasters to ever strike the United States with 25 deaths, 150 injuries, and the displacement of over 10,000 persons. With destruction and damage to over 3,400 residential units, losses were in excess of $1.5 Billion.

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

Oakland experienced its worst flooding conditions during the storm of October 1962. Specific information on past disasters and emergencies is contained in the 2004 Safety Element, on Oakland's website.[8]

Recent declared disasters or local emergencies in Oakland, and in Alameda County were[9]:

- 2012 - -EOC Activations: Anti-Police Protests, January 7, 14, 21; Occupy Oakland, January 28 and 29
- 2011 – Occupy Oakland EOC Activations: September, October, November and Dec.
- June 12, 2011 -EOC Partial Activation- Mehserle Release Protest March/Rally
- March 11, 2011 - EOC Partial Activation Tsunami Warning Result of 8.9 Earthquake Hondshu Japan
- 2010 - Mehserle Trial EOC Partial Activations: June 30-July 1; July 6-July 8; December 3
- February 27,2010 – Chile Earthquake/Tsunami (State EOC activated; Alameda County EOC monitored situation)
- January 2009 – Oscar Grant shootlng/Mehserle verdict (Civil Disturbance)
- January 2008 Winter Storms (City of Oakland declared emergency)
- November 9, 2007 Cosco Busan Oil Spill; 53,000 gallons of oil spilled into SF Bay
- April 29, 2007 Freeway Collapse; tanker truck exploded, destroying section of I-80
- 2006 Spring Storms (Alameda County); flooding, landslides and mudslides
- 2005-2006 Winter Storms (Alameda County); flooding, landslides and mudslides

8 See: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/s/GeneralPlan/DOWD009020
9 2010 Hazard Mitigation Plan, Appendix D: http://quake.abag.ca.gov/wp-content/documents/ThePlan-D-2011.pdf

More information on State and Federally declared disasters in Oakland is on ABAG's website[10].

Hazards Assessment

The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan lists nine hazards that impact the Bay Area; five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). Maps of these hazards and risks are shown on the ABAG website[11]. The hazards pose a significant risk to residents and businesses in the City of Oakland. Oakland does not face any other hazards or any natural disasters not listed in the ABAG multi-jurisdictional plan, and no new hazards have been identified by the City since the original development of this plan in 2005.

The City has undertaken a number of hazard mapping activities since the first Seismic and Safety Elements were prepared by the City. Several of these maps are the same as those on ABAG's website.[12] Additional maps, which illustrate potential hazards to city-owned buildings and property, are included in this report, below.

The City examined the hazard exposure of City urban land based on ABAG's data.[13] Of the 34,682 urban acres in the City:

- Earthquake faulting – 1,835 acres are in the Alquist-Priolo Earthquake Fault Study Zone.
- Earthquake shaking – most of the urban acres (33,925) are in the highest two categories of shaking potential, in large part because the Hayward fault runs through to the eastern portion of the City.
- Earthquake-induced landslides – the California Geological Survey has identified 4,742 acres in the Seismic Hazard Mapping Zones for this hazard.
- Earthquake liquefaction – 17,261 acres are in areas of moderate, high, or very high liquefaction susceptibility mapped by the U.S. Geological Survey; while 14,360 are in the California Geological Survey's Seismic Hazard Mapping Zones for this hazard.
- Tsunamis – While tsunamis may be a hazard in the City of Oakland, the mapping of the inundation area has not been completed at this time. Some recent research indicates that the run-up elevation may be as high as 50% of the wave height at the Golden Gate Bridge. Since that height is currently estimated at 42 feet, this would indicate that the height in Oakland would be as great as 21 feet. However, other researchers estimate that the maximum event would be far less. The most vulnerable facilities are in the waterfront area, particularly the lands owned by the Port of Oakland.
- Flooding –578 acres are in the 100-year flood plain, while an additional 1,865 acres are in other flood-prone areas.

[10] http://quake.abag.ca.gov/mitigation/ThePlan-D-Version-December09.pdf
[11] http://quake.abag.ca.gov/mitigation/.
[12] See "Map Plates": http://quake.abag.ca.gov/wp-content/documents/Map-Plates.pdf
[13] http://quake.abag.ca.gov/mitigation/landuse/

- Landslides – 2,034 acres are in areas of existing landslides ("mostly a landslide area").
- Wildfires – 2,393 acres are subject to high, very high, or extreme wildfire threat; and 18,676 acres are in wildland-urban interface threat areas.
- Dam Inundation – 5,427 acres in Oakland are subject to dam failure inundation.
- Drought – all 34,682 urban acres in Oakland are subject to drought.

Risk Assessment

Urban Land Exposure

The City examined the hazard exposure of Oakland's urban land, based on information in ABAG's website[14]. The "2005 Existing Land Use with 2009 Mapping" file was used for this evaluation. For maps and more detailed descriptions of specific Hazards, see the Safety Element of the Oakland General Plan.[15]

In general, the hazard exposure of Oakland is increasing over time as the amount of urban land increases (In the last five years, 871 acres of land has become urban). Oakland actually reduced the acres of urban land in the 100 year flood zone over the last 5 years due to changes in the new FEMA flood maps. Table 1 describes the exposure of urban land within the City to the various hazards.

[14] See http://quake.abag.ca.gov/mitigation/landuse

[15] Available at: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/s/GeneralPlan/DOWD009020

Table 1. Exposure (acres of urban land)			
Hazard	Plan Year 2005	Plan Year 2010	Change
Total Acres of Urban Land	33,811	34,582	871
Earthquake Faulting (within CGS zone)	1,858	1,835	(23)
Earthquake Shaking (within highest two shaking categories)[16]	33,081	33,925	844
Earthquake-Induced Landslides (within CGS study zone)[17]	4,586	4,742	155
Liquefaction (within moderate, high, or very high liquefaction susceptibility	16,247	17,261	1,014
Flooding[18] (within 100 year floodplain)	663	578	(85)
Flooding (within 500 year floodplain)	1,756	1,855	109
Landslides (within areas of existing landslides)	2,335	2,034	301
Wildfire (subject to high, very high, or extreme wildfire threat)[19]	2,495	2,393	(102)
Wildland-Urban Interface Fire Threat	19,251	18,676	(575)
Dam Inundation (within inundation zone)	5,354	5,427	73
Sea Level Rise[20]	Further research needed		
Tsunamis[21] (within inundation area)	Further research needed		
Drought[22]	33,811	34,682	871

Infrastructure Exposure

The City of Oakland also examined the hazard exposure of infrastructure within the jurisdiction based on the information on ABAG's website.[23] Of the 1,178 miles of roadway in Oakland, Table 2 shows the miles of roadway (as well as transit and rail infrastructure) which are exposed to the various hazards analyzed.

[16] In large part because the Hayward, Greenville, and Calaveras fault systems run through the County.
[17] The California Geological Survey continues to map Alameda County and added the Livermore-Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the densely populated areas in Alameda County are mostly done.
[18] Urban land exposure to 100 year floodplain decreased, likely due to better and more accurate FEMA mapping.
[19] The decrease is due to better and more accurate mapping.
[20] The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.
[21] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Acres of exposed land are not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.
[22] The entirety of the City of Oakland is subject to drought.
[23] See http://quake.abag.ca.gov/mitigation/pickdbh2.html

Table 2. Exposure (miles of Infrastructure)						
Hazard	Roadway		Transit		Rail	
	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010
Total Miles of Infrastructure	1,086	1,178	19	30	39	44
Earthquake Shaking (within highest two shaking categories)	1,078	1,166	18	30	38	42
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility	516	642	14	27	36	43
Liquefaction Hazard (within CGS study zone)[24]	422	496	14	24	39	42
Earthquake-Induced Landslides (within CGS study zone)[25]	69	66	1	1	0	0
Earthquake Faulting (within CGS zone)	66	72	0	0	0	0
Flooding (within 100 year floodplain)	12	8	0	0	1	1
Flooding (within 500 year floodplain)	58	70	3	5	5	7
Landslides (within areas of existing landslides)	46	73	0	0	0	0
Wildfires (subject to high, very high, or extreme wildfire threat)	54	42	0	0	0	0
Wildland-Urban Interface Fire Threat	560	608	6	9	4	8
Dam Inundation (within inundation zone)	179	203	4	7	6	7
Sea Level Rise[26]	More research needed					
Tsunamis[27]	More research needed					
Drought[28]	not applicable					

[24] 681 miles of roadway, 6 miles of transit, and 2 miles of rail are outside the area that has been evaluated by CGS for this hazard
[25] 1,112 miles of roadway, 29 miles of transit, and 44 miles of rail are outside the area that has been evaluated by CGS for this hazard
[26] The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.
[27] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Miles of exposed infrastructure is not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.
[28] Drought is not a hazard for roadways.

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

The City provided a list of City-owned buildings, critical health care facilities and schools within City limits to ABAG; ABAG provided a detailed assessment of the hazard exposure of each of these facilities. Table 3 shows the number of facilities exposed to the various hazards analyzed.[2]

[1] For data, see ABAG's website, http://quake.abag.ca.gov/mitigation/pickcrit2010.html.

Table 3. Exposure (number of facility types)								
Hazard	Hospitals[2]		Schools		City-owned[3] critical facilities		City-owned bridges and interchanges	
	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010
Total Number of Facilities	7	8	133	205	65	312	157	155
Earthquake Shaking (within highest two shaking categories)	7	8	133	204	65	311	157	152
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility	4	4	61	121	51	176	131	134
Liquefaction Hazard (within CGS study zone)	2	3	47	72	42	119	123	123
Earthquake-Induced Landslides (within CGS study zone)	0	0	9	0	2	0	1	0
Earthquake Faulting (within C35 zone)	0	0	5	8	1	30	0	0
Flooding (within 100 year floodplain)	0	0	1	0	0	1	4	2
Flooding (within 500 year floodplain)	0	0	7	14	4	22	31	30
Landslides (within areas of existing landslides)	0	0	0	0	2	15	3	1
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	2	0	0	4	3	0
Wildland-Urban Interface Fire Threat	2	4	65	91	28	173	60	61
Dam Inundation	2	3	20	33	9	31	44	45
Sea Level Rise (exposed to 16" and 55" sea level rise)[4]	-		-		-		-	
Tsunamis[5] (within inundation area)	-		-		-		-	
Drought[6]	-	-	-	-	-	-	-	-

[2] ABAG collected data on Hospitals, Long Term Care Facilities, Primary Care or Specialty Clinics, and Home Health Agencies or Hospices. This table only shows the data for Hospitals. Further information available at http://quake.abag.ca.gov/mitigation/pickcrit2010.html

[3] ABAG collected data on City-Owned, County-Owned, and Special District-Owned facilities. This table reports only the data for City-owned facilities. Further information available at http://quake.abag.ca.gov/mitigation/pickcrit2010.html.

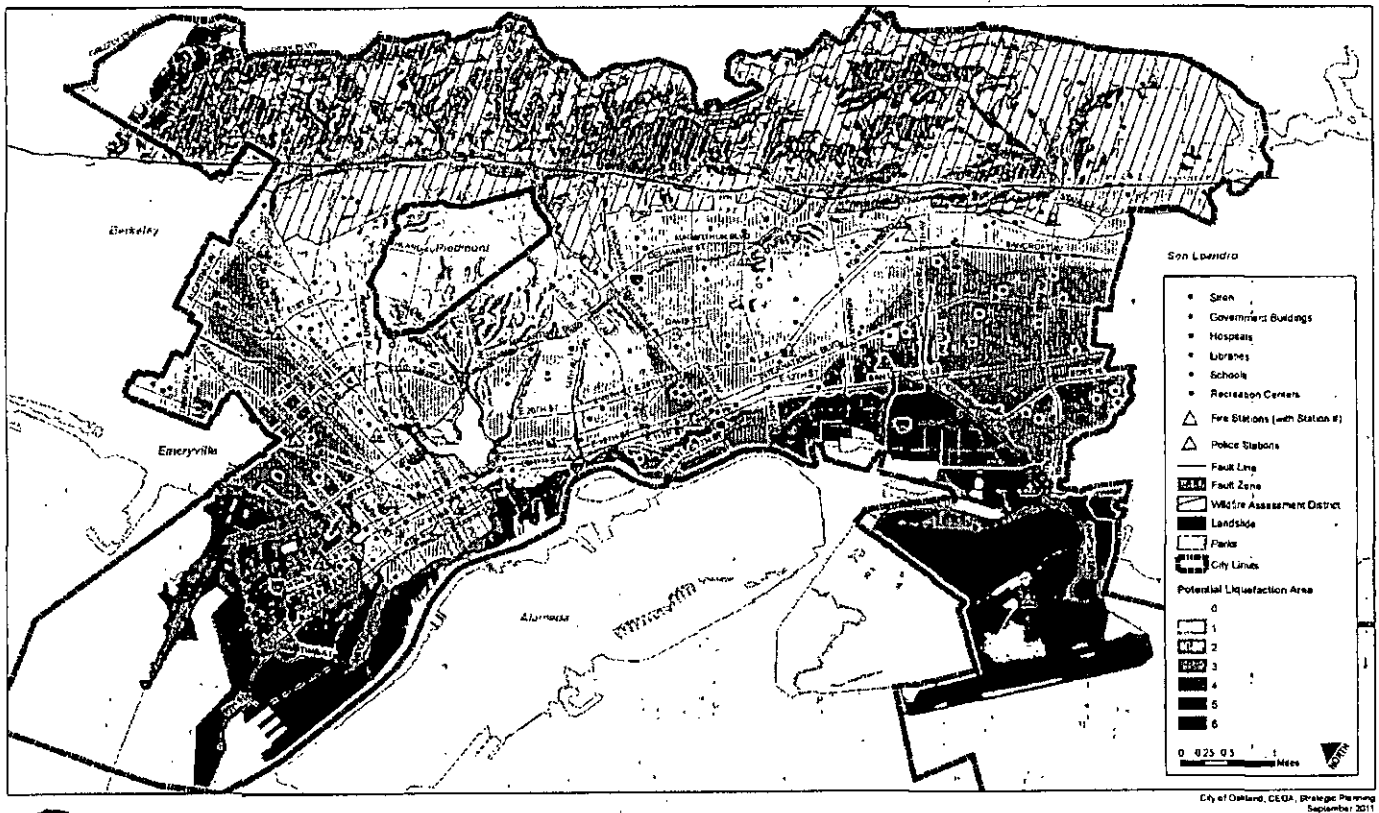
[4] Sea level rise data was not available in 2005

[5] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.

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

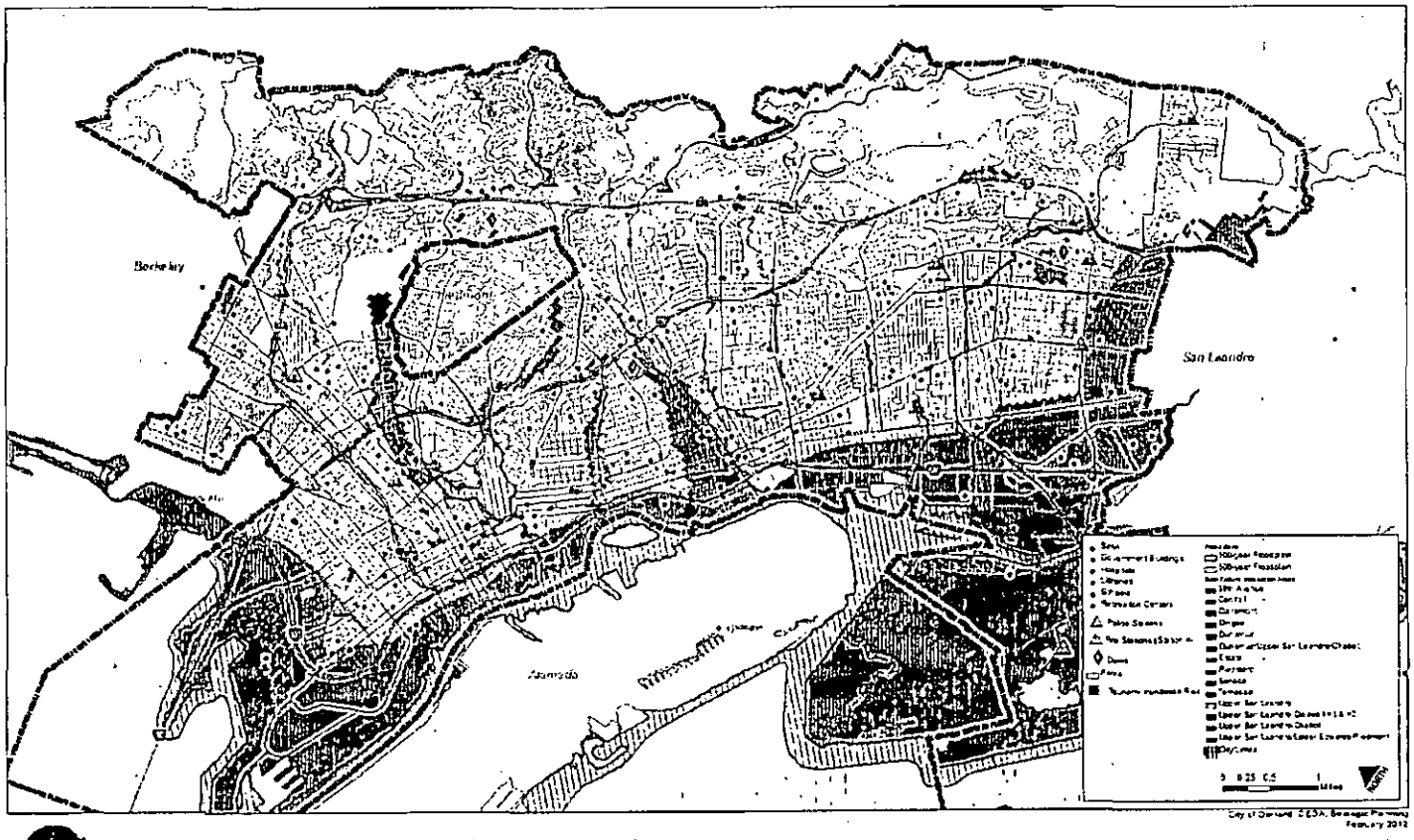
Maps of Hazards and City facilities

The City of Oakland has mapped critical facilities, such as schools, hospitals, and other city-owned structures and facilities with the latest data on major hazards, such as flooding, and liquefaction. The following maps show those hazards (geologic and hydrologic), and those facilities.



CITY OF OAKLAND

Local Hazard Mitigation Plan 2011
Local Geological Hazard Information - Geological



Local Hazard Mitigation Plan 2011
Local Natural Hazard Information -- Hydrological

Other risks

The City of Oakland will continue to work with ABAG to improve the risk assessment information being compiled by ABAG, including developing ways to assess how many soft-story buildings are located in the City. In 2010-2011, Oakland began a self-reported soft-story inventory for building owners, and is considering requiring mandatory retrofits for property owners.

The City's Sustainable Oakland staff participates in the joint San Francisco Bay Conservation and Development Commission/National Oceanic Atmospheric Administration program, Adapting to Rising Tides.[35] This forum brings together regional stakeholders to address impacts from eventual sea level rise in the Bay, and on surrounding communities.

Natural Gas pipelines run through Oakland, and rupture of a gas pipeline could lead to an explosion. Pipelines run under San Leandro Street in East and Central Oakland, under 2nd and 4th Streets in Jack Londop Square, and under Linden Street in West Oakland. PG&E provides a map of these pipelines on its website[36], and also keeps a list of pipeline segments which are monitored, the "Top 100" list. No pipelines in Oakland, however, are on PG&E's "Top 100" list.

Oakland has a high exposure to "manmade hazards," which FEMA describes[37] as terrorism and technological hazards, such as hazardous materials releases. Oakland has the Port of Oakland, regional attractions such as the Oakland Coliseum, regional transportation such as BART and high profile governmental facilities such as the Post Office in West Oakland. The City's *Safety Element*, in chapters on "Public Safety" and "Hazardous Materials," describes the policies and actions the City takes to prevent manmade hazards from occurring[38].

The conclusion is that earthquakes (particularly shaking), wildfire, and landslides (including unstable earth) pose a significant risk for potential loss. As noted in the City's *Safety Element*, in addition to the Hayward fault, Oakland is in close proximity to the Calaveras and San Andreas faults. Of these three faults, the Hayward fault poses the most serious threat by far to Oakland, due to its location through the city, the intensity of land uses near the fault zone, and the long interval since a major quake along the fault. There are no additional risks or vulnerabilities which Oakland is planning mitigation measures for, beyond those reported in the Bay Area MJ LHMP.

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[35] See project website, http://risingtides.csc.noaa.gov/index.html
[36] See PGE website: http://www.pge.com/myhome/edusafety/systemworks/gas/transmissionpipelines/index.shtml
[37] See FEMA report, "Integrating Manmade Hazards into Mitigation Planning" (pg 11): http://hazardmitigation.calema.ca.gov/docs/howto7_Integrating_Manmade_Hazards.pdf
[38] See City of Oakland *Safety Element*, pages 11 and following, and 71 and following: http://www2.oaklandnet.com/Government/o/CEDA/o/PlamingZoning/s/GeneralPlan/DOWD009020

National Flood Insurance Program

The City of Oakland has participated in the National Flood Insurance Program (NFIP) since 1970[39]. The most recent action which continues the City's compliance with the NFIP was in 2009[40]. FEMA reports that there are 310 flood insurance policies in Oakland, representing a total coverage of $86 million. There have been 78 paid flood insurance losses in Oakland—for a total of $266,564.

Repetitive Loss Properties

FEMA defines a "repetitive loss property" as a "property for which two or more National Flood Insurance Program losses of at least $1,000 each have been paid within any ten year period since 1978."

As of November, 2011, there are six repetitive loss properties in the City of Oakland, according to FEMA[41]. Of the six properties, one is inside the special flood hazard area, and all properties are residential.[42] By comparison, in 2004, the City had five repetitive loss properties that were outside the flood plain.

Mitigation Goals and Objectives

The goal of the ABAG MJ-LHMP is to maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters. This goal is unchanged from the 2005 plan and continues to be the goal of the City of Oakland in designing its mitigation program.

Additionally, the City of Oakland has the specific objective of reducing the number of public and private buildings within the City that are vulnerable to the effects of earthquakes. The City has focused on seismic retrofitting as a pre-disaster mitigation. The program has two prongs:

- Seismic Retrofitting for single family homeowners
- Seismic Screening for property owners of multi-family soft story residential buildings of 5 or more units.

Single Family Program

In July 2008, when Oakland had a surplus in real estate transfer taxes, the City instituted the Seismic Strengthening Incentive Program for Single Family Homeowners. The City set aside $1 million from real estate transfer tax for a two year program. Details of the program included:

[39] Oakland has been, according to FEMA, a "full status" member in the program, since 1982.
[40] See Ordinance 12960, adopted July 21, 2009.
[41] Phone discussion with Sarah Owen, of the National Flood Insurance Program. Also, see ABAG's website: http://quake.abag.ca.gov/mitigation/pickflood.html.
[42] According FEMA, payments to these six properties from the Flood Insurance Program total $51,000.

- Flat rate permit fee ($250) for those who met the City's retrofitting standards (otherwise, applicants would pay 10% of construction fee for the permit)
- Applicants who signed up within 60 days of purchase, and met the City's seismic retrofitting standards, and completed the retrofitting within 18 months, were eligible for up to $5,000 reimbursement
- The City included retrofitting standards—akin to Plan Set A or a custom designed plan by a licensed structural engineer—in its Building Code.

At the time, the State of California had not adopted such a code, and Oakland was one of the first to do so. This was important because consumers had no way of comparing bids, or assuring that what they were paying for was effective. Last fall, the State adopted standards.

The Single Family seismic retrofit program was successful. In the year prior to implementation, only six people had taken out retrofit permits. During the two years the program was funded, more than 360 people participated, showing the City that incentives do work. It also showed staff that the most effective outreach was to connect with property owners purchasing older homes at the time of purchase. Owners understood that by performing the seismic retrofit, they were protecting a large investment, and adding the typical cost of a $3,000 to $10,000 for retrofitting at the time they were applying for the mortgage was not onerous.

The City offers a similar program to home owners who live in one of the city's redevelopment zones and meet federal low income requirements. Participants eligible for $5,000 grant for half the cost of retrofitting; the remainder can come from no-cost loans. This current program has had only a few applicants.

Mandatory Soft Story Screening Program

Working with Association of Bay Area Governments, Earthquake Engineering Research Institute, Structural Engineering Association of Northern California and others, Oakland identified 1,500 potential soft-story multi-family apartments and condominiums.

In July 2009, Council passed a mandatory soft-story screening program that requires property owners to complete a simple, low-cost screening to verify that the building is, indeed, a soft-story multi-family structure that has not yet been retrofitted.

When the survey is completed (approximately by 2012), Council will determine next steps: either a mandatory structural engineering report, and a voluntary, or mandatory, seismic retrofit.

Typical engineering costs are $10,000; retrofitting of the first floor runs about $10,000- $50,000 or more, per unit.

Mitigation Activities and Priorities

Evaluation of Progress from 2005 Plan

As a participant in the 2010 ABAG multi-jurisdictional planning process, the staff of the City of Oakland helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan, known as *Taming Natural Hazards*. Appendix G of ABAG's *Taming Natural Hazards* presents a summary list of the more than 300 mitigation strategies and actions, with regional priorities and the hazards mitigated.[43] The decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, econorhically sound, and not harmful to the environment, or to our heritage. Representatives from multiple departments then met on a regular basis to review progress on Oakland's 2005 strategies, to identify and prioritize additional mitigation strategies to update the list.

These draft priorities were submitted to management of the City's Community and Economic Development Agency and the Fire Department's Office of Emergency Services, for review. The draft priorities will be provided to the Oakland Planning Commission and the Oakland City Council for adoption in the beginning of 2012.

The Oakland planning team also prioritized specific mitigation tasks for the next five years. This list includes implementation process, funding strategy, responsible agency, and approximate time frame.

The City ranked those regional strategies and actions in a spreadsheet, using the following scale:

- 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 summary of these rankings is presented in Attachment B to this annex: Oakland Mitigation Strategies and Actions 2010. Oakland's ranking of priorities on the mitigation measures were essentially unchanged from the 2005 LHMP to the 2010 MJ LHMP. The single exception is:

[43] See ABAG's website, http://quake.abag.ca.gov/wp-content/documents/ThePlan-G-2010.pdf

- Housing 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. 2005 priority: Moderate; 2010 priority: Existing program.

Completed Projects

As noted in the 2005 Local Hazard Mitigation Plan, the City has retrofitted several critical facilities, including City Hall and seventeen of the twenty-five fire stations, for earthquake shaking. If a retrofit was not cost effective, the fire station was demolished and replaced. Seven fire stations have been rebuilt during the years 1994, 1995, 1997 (2), 1998, 1999, 2002 and 2010.

In 2008, the City also adopted the S-19 Health and Safety Protection Combining Zone. The intent of the zone is to promote the public health, safety and welfare by ensuring that activities and businesses which use hazardous material substances or store hazardous materials, hazardous waste, or explosives locate in appropriate locations and develop in such a manner as not to be a serious threat to the environment, or to public health, particularly to residents living adjacent to industrial areas where these materials are commonly used, produced or found.

In 2009, City staff participated, and ABAG adopted the Long-Term Disaster Recovery Plan – Part One, the intention of which is:

> ...to develop a model action plan for the City of Oakland, as well as to identify the components of this type of plan for the cities and counties of the San Francisco Bay Area. We hope that this Plan serves as a catalyst for dialog on public policies and actions needed to improve disaster recovery planning.
>
> This June 2009 Plan only covers four of the nine issues identified by ABAG as critical to recovery financing issues: recovery of government facilities and services; long-term housing recovery; and long-term recovery of business. It is the intent of ABAG to prepare the second portion of this document that will have additional chapters covering long-term recovery of health care, schools and education, utilities and transportation, and land use change, as well as the overall issue of governance.[44]

Current Projects

There are several current projects the City is completing which will enhance its response to and recovery from a disaster. The City is currently updating the plans and operations programs which guide staff and employees during disaster recovery. During the summer of 2011, a team of OES staff is directing a comprehensive update of the City's Emergency Operations Plan. In addition, OES staff is also updating specific annexes to the Regional Catastrophic Preparedness Grant Program (as adopted by the Council in 2009).

[44] See page ii of the Report: http://quake.abag.ca.gov/wp-content/uploads/2010/10/PR-Recovery-Oakland-Phase-One1.pdf

City staff and stakeholders from area hospitals, utilities and other groups meet quarterly as the Emergency Management and Preparedness Council, staffed by OES. In addition, OES runs Citizens of Oakland Responding to Emergencies (CORE), which, since its inception in 1990, has provided free, community-based training to more than 18,000 residents.

The City is underway on its Soft Story Seismic Screening program. In 2009, the City Council adopted an ordinance which created a mandatory seismic screening program for residential buildings (of five or more units). Building owners, after notification by the City, have until July 29, 2011 to submit a screening form. The Building Official (in the Community and Economic Development Agency) is processing and analyzing the forms submitted to date, in order to prepare an inventory of soft-story buildings in Oakland.

In June, 2011, the City completed the "Project 25 Public Safety Communications" system upgrades, continuing to fulfill the City's long-standing commitment to advancing the goal of regional interoperable public safety radio communications. The City has received millions of dollars of federal grants and invested millions of dollars in local revenues to further this mission. The City now has a new, all-digital emergency communications system that is fully compliant with the national P25 interoperability communications standard.

In January 2012, the City sought continuation of an existing contract with an international engineering firm, enabling them to continue their design, bidding and construction support for the seismic upgrades of seven bridges owned by Caltrans in the City of Oakland, under the Seismic Safety Retrofit Program. Completion of bridge seismic retrofit projects will ultimately improve seismic response of City facilities during earthquakes.

Future Mitigation Actions and Priorities

The City of Oakland is participating in a Bay Area regional Public Safety Broadband Technology project—a series of 4G networks which will enable different public safety agencies to share maps, video and other critical data via broadband communications networks. This regional system will be available during day to day emergencies and in the event of a disaster which could disable standard communications and data sharing systems. The City's Department of Information Technology, Fire Department, Police Department and Office of Emergency Services are involved in this innovative Bay Area regional the 700 MHz Public Safety Broadband Network will be designed to assist (police officers) to have instant access to criminal databases for suspect information, improved situational awareness using video technologies, and real time tracking of assets for firefighters and law enforcement agencies would be eventually available throughout the region.

For example, utilizing a shared voice and broadband data network, a battalion chief at an incident scene could communicate directly with a power utility worker, while downloading critical building floor plan information, and uploading video to the Incident Commander at an emergency incident. A police commander could communicate with mutual aid partners, such

as the state patrol, or federal partners, to secure perimeters and effectively deploy resources. This program implements mitigation measure Government C-7. The pilot broadband system will be completed by or about July 2013. A Joint Powers Agreement is being developed to determine future enhancements and how the system will be built, operated/managed and maintained.

Another new project over the next five years is the validation of Oakland's soft-story buildings inventory, relative to vulnerable facilities during a major earthquake on the Hayward Fault.

On-Going Mitigation Strategy Programs

The City of Oakland has many on-going mitigation programs that help create a more disaster-resistant city. The following list selects from those programs and policies identified as Existing Progroms in the mitigation strategy spreadsheet. Others are on-going programs that are currently underfunded. Appendix B contains all 300 policies that ABAG adopted in the MJ LHMP, and Oakland's assignment of priorities to each policy. It is the City's priority to find additional funding to sustain these on-going programs over time.

- 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. (Economy-b-4)
- 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. (Environment-a-6)
- 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). (Government b-2)
- Participate in developing and maintaining a system of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies. (Government-C-7)
- Maintain the local government's emergency operations center in a fully functional state of readiness. (Government-c-10)
- Participate in FEMA's National Flood Insurance Program. (Government-d-5)
- 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. (Housing d-1)
- As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems. (Infrastructure a-21)
- Use hazard abatement districts as a funding mechanism to ensure that mitigation strategies are implemented and enforced over time. (Land G-1)

Incorporation into Existing Planning Mechanisms

The City of Oakland will adopt the policies and priorities of the 2010 LHMP annex as an amendment to the 2004 *Sof*ety E*l*ement of the General Plan. The *Saf*ety E*l*ement is the City's overall policy document for addressing and mitigating hazards such as public safety, geologic hazards (earthquakes), fire, hazardous materials and flooding. in addition, the City enforces the requirements of the California Environmental Quality Act (CEQA), which, since 1988, requires mitigation for identified natural hazards. The City used these pre-existing policies and regulations as a basis for identifying gaps which may lead to disaster vulnerabilities, in order to work on ways to address these risks through mitigation.

In March, 2011, the City brought a draft Energy and Climate Action Plan to the City Council, which outlines a ten year plan, including more than 150 actions, that will enable Oakland to achieve a 36% reduction in green house gas emissions by 2020[45]. The Plan also recommends steps the City can take to help Oakland adapt to the impacts of climate change and increase community resilience.

The City funds a Capital Improvement Program (CIP), which was last adopted as part of the 2009-2011 budget. The CIP includes funds for projects which will improve mitigation to hazards in Oakland.[46]

Annex -- Update Process

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

The City is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Office of Emergency Services will ensure that monitoring of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our City, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of department leaders at least once a year in April. At that meeting, the department heads will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. The Department leaders will be responsible for determining if the plan should be updated.

The public will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of annex, the City will provide the opportunity for the public to comment on the updates, announced through the City's website[47]

[45] See http://www2.oaklandnet.com/oakca/groups/pwa/documents/policy/oak024383.pdf
[46] See http://www2.oaklandnet.com/oakca/groups/cityadministrator/documents/policy/dowd005562.pdf
[47] See City's webpage: www.oaklandnet.com.

and at two public hearings in the winter of 2012. A public notice will be printed in the Oakland *Tribune*, prior to the meeting, to announce the comment period and meeting logistics. Copies of the public outreach materials are attached to the report as Exhibit C.

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Exhibit A- City Participation in Emergency Preparedness Coordination

Management and staff of the Oakland Fire Department's Office of Emergency Services conduct, or participate as members in the following boards, councils or groups:

Federal

- Federal Emergency Management Agency (FEMA) National Advisory Committee and sub-committees on Special Needs, National Response Framework, Post Disaster Housing, Stafford Act, Target Capabilities List and Urban Search & Rescue
- International Association of Emergency Managers (IAEM)
- FEMA Region 9 Advisory Council
- FEMA Target Capabilities Implementation Project - Risk Management Technical Working Group
- Federal Executive Board - San Francisco Continuity of Operations (COOP) Working Group

State

- Statewide Emergency Preparedness Committee (SWEPC)
- California Emergency Managers Association (CESA)
- Medical Reserve Corps Advisory Committee (MRC)
- California Emergency Management Agency (CalEMA)
- Coastal Region's Mutual Aid Regional Advisory Committee (MARAC)
- Bay Area Urban Area Strategic Initiative (BAUASI) member of Approval Authority, Emergency Management Advisory Group and planning groups for Training and Exercise, CBRNE (Chemical, Biological, Radiological, Nuclear & Explosives), Information Sharing, Infrastructure Protection, Communications Interoperability, Medical/Health Preparedness, Public Information/Crisis Communication and Community & Economic Resiliency
- Association of Bay Area Governments (ABAG) Hazard Mitigation Advisory Committee
- VOAD (Volunteer Organizations Active in Disasters) for Northern California
- American Red Cross, Bay Area
- Northern California Area Maritime Security Committee (AMSC)
- Radio Amateur Civil Emergency Service (RACES)
- Bay Area Resiliency Network (BARN)
- Regional Catastrophic Preparedness Grant Program (RCPGP) member of Advisory Group and subcommittees for Debris Management, Transportation & Evacuation, Mass Care & Shelter, Mass Fatality and Volunteer Management
- Golden Guardian 2010 BAUASI Steering Committee
- Bay Area Terrorism Working Group (BATWG)
- Terrorism Liaison Officers Working Group (TLO)
- Northern CA Regional Terrorism and Threat Assessment Center (NC-RTTAC)
- Metropolitan Transit Committee (MTC)

- San Francisco Bay & Delta Area Committee
- Region II Public Health Emergency Preparedness Coordinators
- BARC/*first* (Bay Area Response Coalition - financial services)
- BENS (Business Executives for National Security)
- BRMA (Business Recovery Managers Association)

Local

- Alameda County's Emergency Managers Association (ALCO EMA)
- Alameda County's Terrorism Early Warning Group (TEWG)
- Alameda County's Volunteer Management Working Group [
- Alameda County's Mass Care & Shelter Working Group
- Alameda County Health & Medical Strategic Initiative Planning Group and subcommittee on Leadership
- Alameda County Medical Center's Disaster Council
- Alameda County Local Oil Spill Contingency Planning Group
- Communities of Oakland Respond to Emergencies (CORE) Advisory Task Force
- Oakland Radio Communications Association (ORCA)
- Emergency Management and Disaster Preparedness Council (EMADPC) Officer and members of task forces for Transportation, Mass Care, Mass Transportation & Evacuations and Labor & other Groups
- Mayor's Commission on Aging
- Mayor's Commission on Persons with Disabilities
- City of Oakland Golden Guardian Planning Group
- City of Oakland Paratransit Roundtable Planning Group
- City of Oakland Hazard Mitigation Plan Strategies Group
- Oakland Aviation Security Committee
- Amtrak Station Action Planning Comrhittee
- Berkeley-East Bay Humane Society
- Oakland Medical Reserve Corps
- Oakland Chamber of Commerce
- Port of Oakland Emergency Notification Working Group
- Port of Oakland Investment Justification Grant Planning Group
- Port of Oakland Marine Terminal Response Committee

Exhibit B - Oakland Priorities for Mitigation Strategies

These are the priorities that City of Oakland staff assigned to the ABAG Multi-Jurisdiction Local Hazard Mitigation Plan Strategies. The strategies are grouped by topic: Economy; Education; Environment; Government; Health; Housing; Infrastructure; and Land Use. For a complete list of the Mitigation Plan Strategies, and the Oakland departments working on each particular program, see the Oakland table on ABAG's website:
http://www.abag.ca.gov/bayarea/eqmaps/mitigation/strateey.html

City staff assigned each strategy one of the following priorities:

- Existing Program. Mitigation strategy is an existing program for the selected jurisdiction and is adequately funded.
- Existing Program, Underfunded. Mitigation strategy is an existing program for the selected jurisdiction, but additional funds are needed to fully implement the strategy (new in 2009-2010).
- Very High. This is an unofficial program which will be adopted by the local government immediately upon adoption of its annex.
- High. The jurisdiction has plans to implement the strategy as soon as funding and resources allow; funding currently being sought.
- Moderate. The jurisdiction has plans to implement the strategy as soon as funding and resources allow; but funding is not currently being sought.
- Under Study. Implementation of this strategy is actively under study by a specific department or agency within the jurisdiction; not just to be studied at a future date.
- N/A This strategy is not applicable, not appropriate, or not cost-effective.
- NYC. This strategy has never been considered by the jurisdiction.

The abbreviations used in the table below are:

- Public Works Agency PWA
- Department of Planning and Neighborhood Preservation (formerly CEDA) DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECONOMY			
Economy: Multi-Hazard			
ECON-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 Landslide Hazard Zones (designated under the Seismic Hazard Mapping Act).	Existing	
ECON-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 Guidelines for Rehabilitation.	Existing Underfunded	DPNP/Historic Preservation
Economy: Soft-Story Commercial Buildings Vulnerable to Earthquakes			
ECON-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.	Existing	DPNP/Building Services
ECON-b-2	Adopt the 2009 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.	Existing	DPNP/Building Services
ECON-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.)	Moderate	DPNP/Building Services
ECON-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.	Existing	DPNP/Building Services
ECON-b-5	Use the soft-story inventory to require priyate owners to inform all existing tenants (and prospective tenants prior to signing a lease agreement) that they may work in this type of building.	Moderate	DPNP/Building Services

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Moderate	OPNP/Building Services
ECON-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).	Moderate	DPNP/Building Services/Planning and Zoning
ECON-b-8	Explore development of State regulations or legislation to require or encourage private owners of soft-story structures to strengthen them.	Moderate	
ECON-b-9	Provide technical assistance in seismically strengthening privately-owned soft-story structures.	Under Study	DPNP/Building Services
Economy: Unreinforced Masonry Buildings in Older Downtown Areas			
ECON-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.	Existing	DPNP/Building Services
ECON-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 (rather than voluntary) retrofit program, and/or (d) applying penalties to owners who show inadequate efforts to upgrade these buildings.	Existing Underfunded	DPNP/Building Services
ECON-c-3	Require private owners to inform all existing tenants (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.	Existing Underfunded	
ECON-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, because it has probably been retrofitted to a life-safety standard, not to a standard that will allow occupancy following major earthquakes.	Existing Underfunded	
Economy: Privately-Owned Structurally Vulnerable Buildings			
ECON-d-1	Inventory non-ductile concrete, tilt-up concrete, and other privately-owned structurally vulnerable buildings.	Existing Underfunded	DPNP/Building Services
ECON-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.	Existing	DPNP/Building Services

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Existing Underfunded	OPNP/Building Services; Planning and Zoning
Economy: Wildfire and Structural Fires			
ECON-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.	Existing	Oakland Fire Department
ECON-e-2	Tie public education on defensible space and a comprehensive defensible space ordinance to a field program of enforcement.	Existing	Oakland Fire Department
ECON-e-3	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.	Existing	Oakland Fire Department
ECON-e-4	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.	Existing	Oakland Fire Department
ECON-e-5	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 on existing privately-owned buildings by making installation a condition of (a) finalizing a permit for any work valued at over a fixed amount and/or (b) on any building over 75 feet in height, and/or (b) as a condition for the transfer of property.	Existing	Oakland Fire Department
ECON-e-6	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.	Existing Underfunded	Oakland Fire Department
ECON-e-7	Establish special funding mechanisms (such as Fire Hazard Abatement Districts 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.	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-e-8	Establish special funding mechanisms (such as Fire Hazard Abatement Districts or regional bond funding) to fund fire-safety inspections of private properties, roving firefighter patrols on high fire-hazard days, and public education efforts.	Existing Underfunded	Oakland Fire Department
ECON-e-9	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.	Existing	Oakland Fire Department
ECON-e-10	Conduct periodic fire-safety inspections of all privately-owned commercial and industrial buildings.	Existing	Oakland Fire Department
ECON-e-11	Work with the State Fire Marshall, the California Seismic Safety Commission, Pacific Earthquake Engineering Research Center (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. 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).	Moderate	Oakland Fire Department
ECON-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.	Existing	Oakland Fire Department
ECON-e-13	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.	Existing Underfunded	Oakland Fire Department
Economy: Flooding			
ECON-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.	Moderate	DPNP/Building Services
ECON-f-2	Balance the needs for private commercial and industrial development against the risk from potential flood-related hazards.	Existing	DPNP
ECON-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.	Existing	PWA
ECON-f-4	Provide sandbags and plastic sheeting to private businesses in anticipation of rainstorms, and deliver those materials to vulnerable populations upon request.	Existing	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Existing	PWA
ECON-f-6	Apply floodplain management regulations for private development in the floodplain and floodway.	Existing	DPNP/PWA
ECON-f-7	Encourage private business owners to participate in building elevation programs within flood hazard areas.	Existing	
ECON-f-8	As funding becomes available, encourage private business owners to participate in acquisition and relocation programs for areas within floodways.	Moderate	
ECON-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.	Existing	DPNP
Economy: Landslides and Erosion			
ECON-g-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 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.	Existing	DPNP
ECON-g-2	Increase efforts to reduce landslides and erosion in existing and future private development through continuing education of design professionals on mitigation strategies.	Existing Underfunded	DPNP
Economy: Construction			
ECON-h-1	Continue to require that all new privately-owned commercial and industrial buildings be constructed in compliance with requirements of the most recently adopted version of the California Building Code.	Existing	DPNP/Building Services
ECON-h-2	Conduct appropriate employee training and support continued education to ensure enforcement of construction standards for private development.	Existing	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Existing Underfunded	Oakland Fire Department
Economy: Building Reoccupancy			
ECON-i-1	Institute a 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.	Existing Underfunded	DPNP
ECON-i-2	Actively notify private 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 buildings, thus reducing the likelihood that the buildings will be inappropriately evaluated following a disaster.	Existing Underfunded	DPNP
ECON-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.	Existing Underfunded	DPNP
ECON-i-4	Allow private building owners to participate in a BORP-type program as described above, but not actively encourage them to do so.	Existing Underfunded	DPNP
ECON-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 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.	Moderate	DPNP
ECON-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.	Existing Underfunded	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
Economy: Public Education			
ECON-j-1	Provide information to private business owners and their employees on the availability of interactive hazard maps on ABAG's web site.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-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.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-j-3	Develop and print materials, conduct workshops, and provide outreach to Bay Area private businesses focusing on business continuity planning.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-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.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-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.]	Existing Underfunded	Oakland Fire Department/OES
ECON-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.	Existing Underfunded	Oakland Fire Department (OES)/Library
ECON-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.	Existing	Oakland Fire Department/OES
ECON-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.	Existing	PWA
ECON-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.	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Existing Underfunded	Oakland Fire Department
ECON-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.	Existing Underfunded	Oakland Fire Department/OES
ECON-j-12	Inform private shoreline-property owners of the possible long-term economic threat posed by rising sea levels.	Under Study	DPNP
ECON-j-13	Distribute appropriate materials related to disaster mitigation and preparedness to private business owners. Appropriate materials are (1) culturally appropriate and (2) suitable for special needs populations. For example, such materials are available on the http://www.preparenow.org website and from non-governmental organizations that work with these communities on an on-going basis.	Existing	Oakland Fire Department/OES
EDUCATION			
Education: Focus on Critical Facilities			
EDUC-a-1	Assess the vulnerability of critical public education facilities to damage in natural disasters and make recommendations for appropriate mitigation.	Not applicable for a city	State Architect
EDUC-a-2	Retrofit or replace critical public education facilities that are shown to be vulnerable to damage in natural disasters.	Not applicable for a city	State Architect
EDUC-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.	Not applicable for a city	State Architect
EOUC-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.	Not applicable for a city	State Architect
EDUC-a-5	Assess the vulnerability of critical private education, pre-school, and day care facilities to damage in natural disasters and make recommendations for appropriate mitigation.	Not applicable for a city	State Architect
EDUC-a-6	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 can also be created 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.	Not applicable for a city	State Architect

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
Education: Use of Educational Facilities as Emergency Shelters			
EOUC-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.	Not applicable for a city	OUSO
EDUC-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.	Not applicable for a city	OUSD
EDUC-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.	Not applicable for a city	OUSD
Education: Actions Related to Disaster Preparedness and Recovery Planning			
EDUC-c-1	Encourage employees of schools to have family disaster plans and conduct mitigation activities in their own homes.	Not applicable for a city	OUSD
EDUC-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.	Not applicable for a city	OUSD
EDUC-c-3	Offer the 20-hour basic CERT training to teachers and after-school personnel.	Not applicable for a city	OUSD/OES
EDUC-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.	Not applicable for a city	OUSO/OES
EOUC-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).	Not applicable for a city	OUSD/OES
EDUC-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.	Not applicable for a city	OUSD
EDUC-c-7	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.)	Not applicable for a city	OUSD

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
Education: Use of Schools as Conduits for Information to Families About Emergencies			
EOUC-d-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.	Not applicable for a city	OUSD/OES
EDUC-d-2	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website.	Not applicable for a city	OES
ENVIRONMENT			
Environment: Environmental Sustainability and Pollution Reduction			
ENVI-a-1	Continue to enforce State-mandated requirements, such as the California Environmental Quality Act, to ensure that mitigation activities for hazards, such as seismic retrofits and vegetation clearance programs for fire threat, 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.	Existing	DPNP, PWA
ENVI-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.	Existing	
ENVI-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.	Existing	DPNP
ENVt-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.	Under Study	
ENVI-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, mitigates wildfires and maintains the viability of living rivers.	Existing	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ENVI-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.	Existing	PWA
ENVI-a-7	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.	Existing	DPNP, PWA
ENVI-a-8	Explore ways to require that hazardous materials stored in the flood zone be elevated or otherwise protected from flood waters.	Existing	Oakland Fire Department
ENVI-a-9	Enforce and/or comply with the hazardous materials requirements of the State of California Certified Unified Program Agency (CUPA).	Existing	Oakland Fire Department
ENVI-a-10	Provide information on hazardous waste disposal and/or drop off locations.	Existing	PWA/Environmental Services
ENVI-a-11	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.	Under Study	
ENVI-a-12	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.	Existing Underfunded	
ENVI-a-13	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.	Existing Underfunded	PWA
Environment: Climate Change			
ENVI-b-1	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.	Existing	PWA/Environmental Services
ENVI-b-2	Inventory global warming emissions in your own local government's operations and in the community, set reduction targets and create an action plan.	Existing	PWA/Environmental Services
ENVI-b-3	Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities.	Existing Underfunded	DPNP/Strategic Planning

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ENVI-b-4	Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit.	Existing Underfunded	DPNP/PWA (Transportation Services)
ENVI-b-5	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.	Existing Underfunded	
ENVI-b-6	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.	Existing Underfunded	DPNP
ENVI-b-7	Purchase only Energy Star equipment and appliances for local government use.	Existing Underfunded	City Administrator
ENVI-b-8	Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system.	Existing Underfunded	DPNP
ENVI-b-9	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.	Existing Underfunded	PWA
ENVI-b-10	Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production.	Existing Underfunded	
ENVI-b-11	Increase recycling rates in local government operations and in the community.	Existing	PWA (Environmental Services)
ENVI-b-12	Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO2.	Existing Underfunded	PWA
ENVi-b-13	Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.	Existing Underfunded	
Environment: Agricultural and Aquaculture Resilience			
ENVI-c-1	Maintain a variety of crops fn rural areas of the region to increase agricultural diversity and crop resiliency. RESPONSIBLE AGENCIES: County Offices of the Agricultural Commissioner.	Not applicable	
ENVI-c-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.	Not applicable	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ENVI-c-3	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.	Not applicable	
GOVERNMENT			
Government: Focus on Critical Facilities			
GOVT-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.	Existing Underfunded	PWA/Oakland Fire Department (OES)
GOVT-a-2	Retrofit or replace critical facilities that are shown to be vulnerable to damage in natural disasters.	Existing Underfunded	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing Underfunded	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-a-6	When installing micro and/or surveillance cameras around critical public assets tied to web-based software, and developing a surveillance protocol to monitor these cameras, investigate the possibility of using the cameras for the secondary purpose of post-disaster damage assessment.	Moderate	PWA/Oakland Fire Department (OES)
GOVT-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.	Moderate	PWA/Oakland Fire Department (OES)
GOVT-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.	NYC	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-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.	Moderate	PWA/Oakland Fire Department (OES)
GOVT-a-10	Ensure that new government-owned facilities comply with and are subject to the same or more stringent regulations as imposed on privately-owned development.	Existing	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-a-13	Ensure that any regulations imposed on private-owned businesses related to repair and reconstruction (see Economy Section) are enforced and imposed on local government's own buildings and structures.	Existing	PWA/DPNP
Government: Maintain and Enhance Local Government's Emergency Recovery Planning			
GOVT-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-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).	Existing Underfunded	Oakland Fire Department (OES)
GOVT-b-3	Establish a goal for the resumption of local government services that may vary from function to function.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-b-4	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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-b-5	Plan for the emergency relocation of government-owned facilities critical to recovery, as well as any facilities with known structural deficiencies or in hazardous areas.	Existing Underfunded	Oakland Fire Department (OES)
Government: Maintain and Enhance Local Government's Emergency Response Capability			
GOVT-c-1	Develop a plan for short-term and intermediate-term sheltering of your employees.	Moderate	Oakland Fire Department (OES)
GOVT-c-2	Encourage your employees to have a family disaster plan.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-c-3	Offer CERT/NERT-type training to your employees.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-4	Periodically assess the need for new or relocated fire or police stations and other emergency facilities.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-5	Periodically assess the need for changes in staffing levels, as well as for additional or updated supplies, equipment, technologies, and in-service training classes.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-7	Participate in developing and maintaining a system of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-9	Purchase command vehicles for use as mobile command/EOC vehicles if current vehicles are unsuitable or inadequate.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-10	Maintain the local government's emergency operations center in a fully functional state of readiness.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing	Oakland Fire Department (OES)
GOVT-c-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.	Existing	Oakland Fire Department (OES)
GOVT-c-14	Install alert and warning systems for rapid evacuation or shelter-in-place. Such systems include outdoor sirens and/or reverse-911 calling systems.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-15	Conduct periodic tests of the alerting and warning system.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing	DPNP/Building Services

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-c-17	Monitor weather during times of high fire risk using, for example, weather stations tied into police and fire dispatch centers.	Existing	
GOVT-c-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 prepositioning 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.	Existing	
GOVT-c-19	Increase local patrolling during periods of high fire weather.	Existing Underfunded	Oakland Fire Department
GOVT-c-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.	Existing Underfunded	
GOVT-c-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.	Existing Underfunded	
GOVT-c-22	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.	NYC	
GOVT-c-23	Improve coordination among cities, counties, and dam owners so that cities and counties can better plan for evacuation of areas that could be inundated if a dam failed, impacting their jurisdiction.	Moderate	
GOVT-c-24	Develop procedures for the emergency evacuation of areas identified on tsunami evacuation maps as these maps become available.	Existing Underfunded	
GOVT-c-25	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.	Existing Underfunded	Oakland Fire Department (OES)
<u>Government: Participate in National, State, Multi-Jurisdictional and Professional Society Efforts to Identify and Mitigate Hazards</u>			
GOVT-d-1	Promote information sharing among overlapping and neighboring local governments, including cities, counties, and special districts, as well as utilities.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-d-2	Recognize that emergency services is more than the coordination of police and fire response; it also includes planning activities with providers of water, food, energy, transportation, financial, information, and public health services.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-d-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.	High	
GOVT-d-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.	Existing Underfunded	
GOVT-d-5	Participate in FEMA's National Flood Insurance Program.	Existing	DPNP/Building Services
GOVT-d-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-d-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.	Existing Underfunded	Oakland Fire Department
GOVT-d-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.	Existing	Oakland Fire Department (OES)
GOVT-d-9	Conduct and/or promote attendance at local or regional hazard conferences and workshops for elected officials and staff to educate them on the critical need for programs in mitigating earthquake, wildfire, flood, and landslide hazards.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-d-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.	Existing	Oakland Fire Department (OES)
Government: Take a Lead in Loss and Risk Assessment Activities			
GOVT-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. RESPONSIBIUTY: ABAG only; all others are "not applicable."	Not applicable for a city—ABAG jurisdiction	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-e-2	Improve the risk assessment and loss estimation work in the Taming Natural Disasters report and multi-jurisdictional plan related to natural disasters. RESPONSIBILITY: ABAG only; all others are "not applicable."	Not applicable for a city—ABAG jurisdiction	
HEALTH			
Health: Hospitals and Other Critical Health Care Facilities			
HEAL-a-1	Work to ensure that cities, counties, county health departments, and hospital operators coordinate with each other (and that hospitals cooperate with the California Office of Statewide Health Planning and Development - OSHPD) to comply with current state law that mandates that critical facilities are structurally sound and have nonstructural systems designed to remain functional following disasters by 2013. In particular, this coordination should include understanding any problems with obtaining needed funding. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	Existing Underfunded	
HEAL-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	Existing Underfunded	
HEAL-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	Existing Underfunded	
HEAL-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	Existing Underfunded	
HEAL-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	Existing Underfunded	

Number	Specific Mitigation Strategy	Oaldand Priority	Responsible Agencies
HEAL-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	Existing Underfunded	
HEAL-a-7	Develop printed materials, utilize existing materials (such as developed by FEMA, the American Red Cross, and others, including non-profit organizations), conduct workshops, and/or provide outreach encouraging employees of these critical health care facilities to have family disaster plans and conduct mitigation activities in their own homes. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	Existing Underfunded	
Health: Ancillary Health-Related Facilities			
HEAL-b-1	Identify these ancillary facilities in your community. These facilities are not regulated by OSHPD in the same way as hospitals. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	Existing Underfunded	
HEAL-b-2	Encourage these facility operators to develop disaster mitigation plans. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	Existing Underfunded	
HEAL-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	Existing Underfunded	
Health: Coordination Initiatives			
HEAL-c-1	Designate locations for the distribution of antibiotics to large numbers of people should the need arise, as required to be included in each county's Strategic National Stockpile Plan. RESPONSIBLE AGENCIES: County Health Departments	N/A	
HEAL-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	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HEAL-c-3	Know that National Disaster Medical System (NOMS) 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	Not Yet Considered	
HEAL-c-4	Plan for hazmat related-issues due to a natural or technological disaster. Hazmat teams should utilize the State of California Department of Health Services laboratory in Richmond for confirmation of biological agents and Lawrence Livermore National Laboratory or Sandia (both in Livermore) for confirmation of radiological agents. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals.	Existing Underfunded	
HEAL-c-5	Create discussion forums for food and health personnel (including, for example, medical professionals, veterinarians, and plant pathologists) to develop safety, security, and response strategies for food supply contamination (at the source, in processing facilities, in distribution centers, and in grocery stores). RESPONSIBLE AGENCIES: County environmental health departments	Not applicable	
HEAL-c-6	Ensure mental health continuity of operations and disaster planning is coordinated among county departments, (including Public Health and Emergency Services), private sector mental health organizations, professional associations, and national and community-based non-profit agencies involved in supporting community mental health programs. First, such planning should ensure that the capability exists to provide both immediate on-site mental health support at facilities such as evacuation centers, emergency shelters, and local assistance centers, as well as to coordinate on-going mental health support during the long-term recovery process. Second, this planning should ensure that mental health providers, in collaboration with the county agencies responsible for providing public information, are prepared to provide consistent post-disaster stress and other mental health guidance to the public impacted by the disaster.	Not Applicable	
HOUSING			
Housing: Multi-Hazard			
HSNG-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 Landslide Hazard Zones (designated under the Seismic Hazard Mapping Act).	Not Yet Considered	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	Existing Underfunded	DPNP
HSNG-a-3	Develop a plan for short-term sheltering of residents of your community in conjunction with the American Red Cross.	Existing	Oakland Fire Department (OES)
HSNG-a-4	Develop a plan for interim housing for those displaced by working with the Regional Catastrophic Planning Grant Program (CPGP) that funded this effort in 2009. (Estimated completion is 2011.)	Existing	Oakland Fire Department (OES)
Housing: Single-Family Homes Vulnerable to Earthquakes			
HSNG-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" wails), such as Plan Set A developed by a committee representing the East 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.	Existing Underfunded	DPNP
HSNG-b-2	Require engineered plan sets for seismic retrofitting 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.	Existing	DPNP
HSNG-b-3	Require engineered plan sets for seismic retrofitting of homes on steep hillsides (because these homes are not covered by Plan Set A).	Existing	DPNP
HSNG-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 retrofitting of single-family homes, including application of Plan Set A.	Existing	DPNP
HSNG-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 retrofitting of single-family homes.	Existing Underfunded	DPNP
HSNG-b-6	Conduct demonstration projects on common existing housing types demonstrating structural and nonstructural mitigation techniques as community models for earthquake mitigation.	Not Yet Considered	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	Moderate	DPNP
HSNG-b-8	Establish tool-lending libraries with common tools needed for retrofitting for use by homeowners with appropriate training.	Existing	DPNP/Library
HSNG-b-9	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 that makes such retrofits exempt from increases in property taxes.	Existing Underfunded	DPNP
Housing: Soft-Story Multi-Family Residential Structures Vulnerable to Earthquakes			
HSNG-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.	Existing	DPNP
HSNG-c-2	Adopt the 2009 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.	Existing	DPNP
HSNG-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.)	Moderate	DPNP
HSNG-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.	Existing Underfunded	DPNP
HSNG-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.	Moderate	DPNP
HSNG-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.	Moderate	DPNP
HSNG-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/).	Moderate	DPNP
HSNG-c-8	Explore development of State regulations or legislation to require or encourage private owners of soft-story structures to strengthen them.	Moderate	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-c-9	Provide technical assistance in seismically strengthening privately-owned soft-story structures.	Under Study	DPNP
Housing: Unreinforced Masonry Housing Stock			
HSNG-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.	Existing	DPNP
HSNG-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.	Existing Underfunded	DPNP
HSNG-d-3	Require private owners to inform all existing tenants (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.	Existing Underfunded	
HSNG-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, because it has probably been retrofitted to a life-safety standard, not to a standard that will allow occupancy following major earthquakes.	Existing	
Housing: Other Privately-Owned Structurally Vulnerable Residential Buildings and Earthquakes			
HSNG-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).	Existing Underfunded	OES
HSNG-e-2	Inventory non-ductile concrete, tilt-up concrete (such as converted lofts), and other privately-owned potentially structurally vulnerable residential buildings.	Existing Underfunded	DPNP
HSNG-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.	Existing	DPNP
HSNG-e-4	Adopt one or more of the following strategies as incentives to encourage retrofitting 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.	Existing Underfunded	OPNP

Number	Specific Mitigation Strategy	Oakland Priarity	Responsible Agencies
Housing: New Construction and Earthquakes			
HSNG-f-1	Continue to require that all new housing be constructed in compliance with requirements of the most recently adopted version of the California Building Code.	Existing	DPNP
HSNG-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.	Existing	DPNP
Housing: Wildfire and Structural Fires			
HSNG-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.	Existing	Oakland Fire Department
HSNG-g-2	Tie public education on defensible space and a comprehensive defensible space ordinance to a field program of enforcement.	Existing	
HSNG-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.	Existing	DPNP
HSNG-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.	Moderate	
HSNG-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.	Existing	DPNP
HSNG-g-6	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.	Existing	DPNP
HSNG-g-7	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 on existing residential buildings by making installation a condition of (a) finalizing a permit for any work valued at over a fixed amount and/or (b) on any building over 75 feet in height, and/or (b) as a condition for the transfer of property.	Existing	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	n/a	
HSNG-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.	Existing Underfunded	Oakland Fire Department
HSNG-g-10	Establish special funding mechanisms (such as Fire Hazard Abatement Districts 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.	Existing Underfunded	Oakland Fire Department
HSNG-g-11	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.	Existing Underfunded	Oakland Fire Department
HSNG-g-12	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.	Existing	Oakland Fire Department
HSNG-g-13	Require fire sprinklers in all new or substantially remodeled multifamily housing, regardless of distance from a fire station.	Existing	Oakland Fire Department
HSNG-g-14	Require sprinklers in all mixed use development to protect residential uses from fires started in non-residential areas.	Existing	Oakland Fire Department
HSNG-g-15	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.	Existing	Oakland Fire Department
HSNG-g-16	Conduct periodic fire-safety inspections of all multi-family buildings, as required by State law.	Existing	Oakland Fire Department
HSNG-g-17	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.	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-g-18	Create a mechanism to require the bracing of water heaters and flexible couplings on gas appliances, and/or (as specified under "b. 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.	Existing	DPNP
HSNG-g-19	Work with the State Fire Marshall, the California Seismic Safety Commission, Pacific Earthquake Engineering Research Center (PEER), and other experts to identify and manage gas-related fire risks of soft-stpry 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).	Moderate	Oakland Fire Department
HSNG-g-20	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.	Existing Underfunded	Oakland Fire Department
Housing: Flooding			
HSNG-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.	Moderate	
HSNG-h-2	Balance the housing needs of residents against the risk from potential flood-related hazards.	Existing	
HSNG-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.	Existing	PWA
HSNG-h-4	Provide sandbags and plastic sheeting to residents in anticipation of rainstorms, and deliver those materials to vulnerable populations upon request.	Existing Underfunded	PWA
HSNG-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.	Existing Underfunded	PWA/OES
HSNG-h-6	Apply floodplain management regulations for private development in the floodplain and floodway.	Existing	DPNP/PWA
HSNG-h-7	Ensure that new subdivisions are designed to reduce or eliminate flood damage by requiring lots and rights-of-way be laid out for the provision of approved sewer and drainage facilities, providing on-site detention facilities whenever practicable.	Existing	DPNP/PWA
HSNG-h-8	Encourage home and apartment owners to participate in home elevation programs within flood hazard areas.	Existing	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-h-9	As funding opportunities become available, encourage home and apartment owners to participate in acquisition and relocation programs for areas within floodways.	Moderate	
HSNG-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.	Existing	
Housing: Landslides and Erosion			
HSNG-i-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 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.	Existing	DPNP
HSNG-i-2	Increase efforts to reduce landslides and erosion in existing and future private development through continuing education of design professionals on mitigation strategies.	Existing Underfunded	
Housing: Building Reoccupancy			
HSNG-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.	Existing	DPNP
HSNG-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.	Existing Underfunded	DPNP
Housing: Public Education			
HSNG-k-1	Provide information to residents of your community on the availability of interactive hazard maps showing your community on ABAG's web site.	Existing	OES

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-k-4	Develop a public education campaign on the cost, risk, and benefits of earthquake, flood, and other hazard insurance as compared to mitigation.	Moderate	Oakland Fire Department (OES)
HSNG-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 of safety and security mitigation activities.	Existing	Oakland Fire Department (OES)
HSNG-k-6	Sponsor the formation and training of Community Emergency Response Teams (CERT) for residents in your community. (Note – these programs go by a variety of names in various cities and areas.)	Existing Underfunded	Oakland Fire Department (OES)
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-k-8	Institute the neighborhood watch block captain and team programs outlined in the Citizen Corps program guide.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)/ Library
HSNG-k-10	Train homeowners to locate and shut off gas valves if they smell or hear gas leaking.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-k-11	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.	Moderate	
HSNG-k-12	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.)	Existing	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-k-13	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.	Existing	PWA
HSNG-k-14	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.	Existing Underfunded	Oakland Fire Department
HSNG-k-15	Inform shoreline-property owners of the possible long-term economic threat posed by rising sea levels.	Under Study	
HSNG-k-16	Distribute appropriate materials related to disaster mitigation and preparedness to residents. Appropriate materials are (1) culturally appropriate and (2) suitable for special needs populations. For example, such materials are available on the http://www.preparenow.org website and from non-governmental organizations that work with these communities on an on-going basis.	Existing Underfunded	Oakland Fire Department (OES)
INFRASTRUCTURE			
Infrastructure: Multi-Hazard			
INFR-a-1	Assess the vulnerability of critical facilities owned by infrastructure operators subject to damage in natural disasters or security threats, including fuel tanks and facilities owned outside of the Bay Area that can impact service delivery within the region. Note - Infrastructure agencies, departments, and districts are those that operate transportation and utility facilities and networks.	Not Applicable	PWA
INFR-a-2	If a dam owner, comply with State of California and federal requirements to assess the vulnerability of dams to damage from earthquakes, seiches, landslides, liquefaction, or security threats.	Not Applicable	
INFR-a-3	Encourage the cooperation of utility system providers and cities, counties, and special districts, and PG&E to develop strong and effective mitigation strategies for infrastructure systems and facilities.	Existing	PWA/OES
INFR-a-4	Retrofit or replace critical lifeline facilities and/or their backup facilities that are shown to be vulnerable to damage in natural disasters.	Existing Underfunded	PWA/OES
INFR-a-5	Support and encourage efforts of other (lifeline infrastructure) agencies as they plan for and arrange financing for seismic retrofits and other disaster mitigation strategies. (For example, a city might pass a resolution in support of a transit agency's retrofit program.)	Existing	PWA/OES

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-a-6	Develop a plan for speeding the repair and functional restoration of water and wastewater systems through stockpiling of shoring materials, temporary pumps, surface pipelines, portable hydrants, and other supplies, such as those available through the Water /Wastewater Agency Response Network (WARN). Communicate that plan to local governments and critical facility operators.	Existing	
INFR-a-7	Engage in, support, and/or encourage research by others (such as USGS, universities, or Pacific Earthquake Engineering Research Center-PEER) on measures to further strengthen transportation, water, sewer, and power systems so that they are less vulnerable to damage in disasters.	Existing	
INFR-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.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-9	Ensure that critical intersection traffic lights function following loss of power by installing battery back-ups, emergency generators, or lights powered by alternative energy sources such as solar. Proper functioning of these lights is essential for rapid evacuation, such as with hazmat releases resulting from natural disasters.	Existing Underfunded	PWA
INFR-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).	Existing Underfunded	Oakland Fire Department
INFR-a-11	Minimize the likelihood that power interruptions will adversely impact lifeline utility systems or critical facilities by ensuring that they have adequate back-up power.	Existing Underfunded	
INFR-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.	Existing Underfunded	
INFR-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.	Not Applicable	
INFR-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.	Existing	Oakland Fire Department (OES)
INFR-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.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-a-16	Recognize that heat emergencies produce the need for non-medical transport of people to cooling centers by ensuring that (1) transit operators have plans for non-medical transport of people during and after such emergencies including the use of paratransit and (2) cities, counties, and transit agencies have developed ways to communicate the plan to the public.	Existing Underfunded	Oakland Fire Department (OES)
INFR-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.	Not applicable	Oakland Fire Department (OES)
INFR-a-18	Develop (with the participation of paratransit providers, emergency responders, and public health professionals) plans and procedures for paratransit system response and recovery from disasters.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-19	Coordinate with other critical infrastructure facilities to establish plans for delivery of water and wastewater treatment chemicals.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-20	Establish plans for delivery of fuel to critical infrastructure providers.	Existing Underfunded	Oakland Fire Department (OES)
tNFR-a-21	As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-22	Monitor scientific studies of the Sacramento-San Joaquin Delta and policy decisions related to the long-term disaster resistance of that Delta system to ensure that decisions are made based on comprehensive analysis and in a scientifically-defensible manner. Levee failure due to earthquakes, flooding, and climate change (including sea level rise and more frequent and more severe flooding) are all of concern. The long-term health of the Delta area is critical to the Bay Area's water supply, is essential for the San Francisco Bay and estuary's environmental health, provides recreation opportunities for Bay Area residents, and provides the long-term sustainability of Delta communities. While only part of the Delta is within the nine Bay Area counties covered by this multi-jurisdictional LHMP, the Delta is tied to the infrastructure, water supply, and economy of the Bay Area.	Existing Underfunded	PWA (Environmental Services)
Infrastructure: Earthquakes			
INFR-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.	Existing Underfunded	PWA
INFR-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.	Existing Underfunded -- local streets and roads are highest priority.	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-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).	Existing Underfunded	
INFR-b-4	Install specially-engineered pipelines in areas subject to faulting, liquefaction, earthquake-induced landsliding, or other earthquake hazard.	NYC	
INFR-b-5	Replace or retrofit water-retention structures that are determined to be structurally deficient, including levees, dams, reservoirs and tanks.	Not applicable	
INFR-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).	Not applicable	
INFR-b-7	Install earthquake-resistant connections when pipes enter and exit bridges and work with bridge owners to encourage retrofit of these structures.	Existing Underfunded	
INFR-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.	Existing	PWA
INFR-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.	Existing	
INFR-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.	n/a (See San Francisco Bay Area Water Emergency Transportation Authority)	
Infrastructure: Wildfire			
INFR-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.	Existing Underfunded	Oakland Fire Department
INFR-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).	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-c-3	Develop a defensible space vegetation program that includes the clearing or thinning of (a) non-fire resistive vegetation within 30 feet of access and evacuation roads and routes to critical facilities, or (b) all non-native species (such as eucalyptus and pine, but not necessarily oaks) within 30 feet of access and evacuation roads and routes to critical facilities.	Existing Underfunded	Oakland Fire Department
INFR-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.	Existing	Oakland Fire Department
INFR-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.	Existing (note: requirement for a six foot clearance)	DPNP/Oakland Fire Department
INFR-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.	Existing Underfunded	DPNP/Oakland Fire Department
INFR-c-7	Ensure adequate fire equipment road or fire road access to developed and open space areas.	Existing Underfunded	DPNP/Oakland Fire Department
INFR-c-8	Maintain fire roads and/or public right-of-way roads and keep them passable at all times.	Existing Underfunded	Oakland Fire Department
Infrastructure: Flooding			
INFR-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.	Existing Underfunded	PWA
INFR-d-2	Develop procedures for performing a watershed analysis to examine the impact of development on flooding potential downstream, including communities outside of the jurisdiction of proposed projects.	Existing Underfunded	PWA
INFR-d-3	Conduct a watershed analysis at least once every ten years unless there is a major development in the watershed or a major change in the Land Use Element of the General Plan of the cities or counties within the watershed.	Existing Underfunded	PWA
INFR-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).	Existing Underfunded	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-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.	Existing Underfunded	PWA
INFR-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.)	Existing Underfunded	PWA
INFR-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.	Existing Underfunded	PWA
INFR-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.	Existing Underfunded	DPNP/PWA
INFR-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.	Existing Underfunded	PWA
INFR-d-10	Use reservoir sediment or reed removal as one way to increase storage for both flood control and water supply.	Not applicable	
INFR-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.	Existing Underfunded	PWA
INFR-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.	Not applicable	
INFR-d-13	Ensure that utility systems in new developments are constructed in ways that reduce or eliminate flood damage.	Existing	PWA
INFR-d-14	Determine whether or not wastewater treatment plants are protected from floods, and if not, investigate the use of flood-control berms to not only protect from stream or river flooding, but also increase plant security.	Not applicable	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-d-15	Work cooperatively with water agencies, flood control districts, Caltrans, and local transportation agencies to determine appropriate performance criteria for watershed analysis.	Existing Underfunded	PWA
INFR-d-16	Work for better cooperation among the patchwork of agencies managing flood control issues.	Existing Underfunded	
INFR-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.	Existing Underfunded	
INFR-d-18	Using criteria developed by EPA for asset management, inventory existing assets, the condition of those assets, and improvements needed to protect and maintain those assets. Capture this information in a Geographic Information System (GIS) and use it to select locations for creek monitoring gauges.	Existing Underfunded	
Infrastructure: Landslides			
INFR-e-1	Include "areas subject to ground failure" in the list of criteria used for determining a replacement schedule (along with importance, age, type of construction material, size, condition, and maintenance or repair history) for pipelines.	Existing	PWA
INFR-e-2	Establish requirements in zoning ordinances to address hillside development constraints in areas of steep slopes that are likely to lead to excessive road maintenance or where roads will be difficult to maintain during winter storms due to landsliding.	Existing	DPNP
Infrastructure: Building Reoccupancy			
INFR-f-1	Ensure that critical buildings owned or leased by special districts or private utility companies participate in a program similar to San Francisco's Building Occupancy Resumption Program (BORP). The BORP program permits owners of buildings to hire qualified engineers to create facility-specific post-disaster inspection plans and allows these engineers to become automatically deputized as City/County inspectors for these buildings in the event of an earthquake or other disaster. This program allows rapid reoccupancy of the buildings. Note - A qualified (deleted structural) engineer is a California licensed engineer with relevant experience.	N/A	
Infrastructure: Public Education			
INFR-g-1	Provide materials to the public related to planning for power outages.	Existing Underfunded	Oakland Fire Department (OES)
INFR-g-2	Provide materials to the public related to family and personal planning for delays due to traffic or road closures, or due to transit system disruption caused by disasters.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-g-3	Provide materials to the public related to coping with reductions in water supply or contamination of that supply BEYOND regulatory notification requirements.	Not Applicable	
INFR-g-4	Provide materials to the public related to coping with disrupted storm drains, sewage lines, and wastewater treatment (such as materials developed by ABAG's Sewer Smart Program).	Existing Underfunded	PWA
INFR-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.	Existing Underfunded	Oakland Fire Department (OES)
INFR-g-6	Sponsor the formation and training of Community Emergency Response Teams (CERT) for the employees of your agency. [Note – these programs go by a variety of names in various cities and areas.]	Existing Underfunded	Oakland Fire Department (OES)
INFR-g-7	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website related to infrastructure issues.	Existing Underfunded	Oakland Fire Department (OES)
LANDUSE			
Land Use: Earthquake Hazard Studies for New Private Developments			
LAND-a-1	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.)	Existing	
LAND-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.	Existing	
LAND-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.	Existing	
LAND-a-4	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.	NYC	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
LAND-a-5	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.	NYC	
LAND-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.	Existing	
LAND-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.	Existing	DPNP
LAND-a-8	Require that local government reviews of geologic and engineering studies are conducted by appropriately trained and credentialed personnel.	Existing	DPNP
Land Use: Wildfire and Structural Fires			
LAND-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.	Existing	Oakland Fire Department
LAND-b-2	Develop a clear legislative and regulatory framework at both the state and local levels to manage the wildland-urban-interface consistent with f ire Wise and sustainable community principles.	Existing	Oakland Fire Department
Land Use: Flooding			
LAND-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.	Existing	
LAND-c-2	Incorporate FEMA guidelines and suggested activities into local government plans and procedures for managing flood hazards.	Existing	
LAND-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).	NYC	DPNP
LAND-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 National Flood Insurance Program.	NYC	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
LAND-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.	NYC	DPNP
LAND-c-6	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.	High	DPNP/OES
Land Use: Landslides and Erosion			
LAND-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.	Existing	DPNP
LAND-d-2	Require that local government reviews of these investigations are conducted by appropriately trained and credentialed personnel.	Existing	DPNP
LAND-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.	Existing	DPNP
LAND-d-4	Establish and enforce provisions under the creek protection, storm water management, and discharge control ordinances designed to control erosion and sedimentation.	Existing	DPNP/PWA
LAND-d-5	Establish requirements in zoning ordinances to address hillside development constraints, especially in areas of existing landslides.	Existing	DPNP
Land Use: Hillsides - Multi-hazard			
LAND-e-1	For new development, require a buffer zone between residential properties and landslide or wildfire hazard areas.	NYC	DPNP
LAND-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.	NYC	DPNP
Land Use: Smart Growth to Revitalize Urban Areas and Promote Sustainability			
LAND-f-1	Prioritize retrofit of infrastructure that serves urban areas (or urban services areas) over constructing new infrastructure to serve outlying areas.	Existing	DPNP/PWA
LAND-f-2	Work to retrofit homes in older urban neighborhoods to provide safe housing close to job centers.	Existing Underfunded	DPNP
LAND-f-3	Work to retrofit older downtown areas and redevelopment districts to protect architectural diversity and promote disaster-resistance.	Existing Underfunded	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
LAND-f-4	Work with non-profits and through other mechanisms to protect as open space those areas susceptible to extreme hazards (such as through land acquisition, zoning, and designation as priority conservation areas).	Existing Underfunded	OPR/DPNP/PWA
LAND-f-5	Strive to provide and 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 earthquake, accident, 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.	Existing	DPNP
Land Use: Hazard Abatement Districts			
LAND-g-1	Use hazard abatement districts as a funding mechanism to ensure that mitigation strategies are implemented and enforced over time.	Existing Underfunded (see Geologic Hazard Abatement District regulations).	DPNP

Exhibit C - Public Participation

- City of Oakland web site information about LHMP Annex
- Oakland *Tribune* notice from 1/15/12

Search

510-444-CITY
TTY 238-3254

Oakland's Local Hazard Mitigation Plan

The City of Oakland is working closely with the Association of Bay Area Governments (ABAG) to update our local hazard mitigation plan. This plan explains to residents, businesses and regulatory agencies what Oakland is doing to increase our resiliency to natural hazards, such as earthquake, flood, wildfire. "Hazard Mitigation" is defined by ABAG as:

> Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. Hazard mitigation is most effective when a long-term plan is developed before a disaster occurs. A hazard mitigation plan identifies the hazards a community or region faces, assesses their vulnerability to the hazards and identifies specific actions that can be taken to reduce the risk from the hazards. The Federal Disaster Mitigation Act of 2000 (DMA 2000) outlines a process which cities, counties, and special districts can follow to develop a Local Hazard Mitigation Plan. Development of this plan is a requirement for certain benefits from CalEMA and FEMA.

Oakland's updated local hazard mitigation plan will be an annex (supplement) to the regional plan ABAG prepared entitled "Taming Natural Disasters: Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area." Click here to read the ABAG regional plan.

Public hearings to adopt the Local Hazard Mitigation Plan will soon be held. Please review the draft report linked to below and attend the public hearings. Help us craft a plan that meets all of Oakland's needs by providing your comments and suggestions to the decision-making bodies which are considering the Plan.

- Ways to Participate
- Upcoming Meetings and Past Meeting Materials
- Supporting Links, Materials & Documents

Ways to Participate

There are many ways to stay informed and participate in the local Hazard Mitigation Planning process:

- Look for notices of upcoming public meetings and related information below.
- Get on the Corridor Design Guidelines update email distribution list. Click here to subscribe to receive upcoming meeting notices and other information via email.
- Provide us with your written comments via email to strategicplanning@oaklandnet.com (please include "Local Hazard Mitigation Plan" in the subject line); by U.S. Mail to: City of Oakland, Attn: Devan Helft, Strategic Planning Division, 250 Frank Ogawa Plaza, Suite 33154, Oakland CA, 94612; or by fax to (510) 238-6538.
- Call us with questions or comments at contact by phone: (510) 238-3550 or the Strategic Planning Message Line at (510) 238-7299.

Upcoming Meetings and Past Meeting Materials

Upcoming Meetings	Date/Time/Location	Meeting Materials
Planning Commission	February 1, 2012, 6:00 pm Council Chambers, City Hall One Frank H. Ogawa Plaza	Staff report will be published ten days before the hearing

Committee	TBD	prior to the hearing
City Council adoption hearing	TBD	

Supporting Links, Materials & Documents

- Draft Local Hazard Mitigation Plan
- City of Oakland's 2004 Safety Element
- State of California Assembly Bill 2140 which requires the preparation of a Local Hazard Mitigation Plan
- City of Oakland's Office of Emergency Services
- City of Oakland's CORE (Citizens of Oakland Respond to Emergencies) program
- Association of Bay Area Governments' (ABAG's) Regional Hazard Mitigation Planning

sented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why

WHEN YOU GOTTA FIND IT NOW CHECK THE CLASSIFIEDS

1/20/12 at 5:30am a.m. in Dept. 201, located at 2120 Martin Luther King Jr. Way, Berkeley, CA 94704.

IF YOU OBJECT to the granting of the petition,

The registrant began to transact business under the fictitious business name(s) listed above on N/A.

/s/Maria Guadalupe Armenta

THIS STATEMENT WAS

guidance for the ALUC and local jurisdictions to safeguard the general welfare of the public as the airport and the area surrounding the airport grows. The 60-day public comment period ends February 6, 2012.

NOTICE OF PUBLIC HEARING

Notice is hereby given that on **Wednesday, February 1, 2012, 6:00 p.m.,** in Oakland City Hall, Hearing Room 1, One Frank H. Ogawa Plaza, the Oakland City Planning Commission will hold a public hearing to consider recommending that the Association of Bay Area Governments' report, "Taming Natural Hazards," be made the Oakland Local Hazard Mitigation Plan. The hazard mitigation plan identifies the natural hazards Oakland faces (such as earthquake, fire or flood), assesses the City's vulnerability to the hazards, and identifies specific actions that are being taken to reduce the risk from the hazards. After consideration by the Planning Commission, public hearings on the Plan are expected to be held in late February at the Public Safety Committee of the City Council, and at the full City Council in March.

All interested parties are welcome to attend and present comments on the draft Local Hazard Mitigation Plan.

To view materials about the Oakland Local Hazard Mitigation Plan, please visit the project website at: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/index.htm. The Association of Bay Area Governments has set up a website for more information about the regional preparations for natural disaster planning: http://quake.abag.ca.gov/mitigation.

For more information, or to send comments, contact Devan Reiff, Planner II at (510) 238-3550, or by email at dreiff@oaklandnet.com. Written comments may be addressed to Devan Reiff, Planner II. Community and Economic Development Agency, Planning and Zoning, Suite 3315, Oakland, CA 94612 or by email at dreiff@oaklandnet.com.

SCOTT MILLER, Secretary
City Planning Commission

OT #4300844; Jan 15, 2012

individual and separate public hearing on each proposed General Waiver Request to the California State Board of Education requesting a waiver of a portion or all of the Education Code Section stated for reason(s) mentioned herein.

NAME	EDUCATION CODE SECTION TO BE WAIVED	TOPIC OF THE WAIVER	SCHOOL	SCHOOL YEAR
6:00 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Markham Elementary School	2010-2011
6:01 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Corfield Elementary School	2010-2011
6:02 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Martin Luther King Jr. Elementary School	2010-2011
6:03 P.M.	52055.740(a)	Class Size Maximum Enrollment of 27	Frick Middle School	2010-2011
6:04 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Manzanita Community Elementary School	2010-2011
6:05 P.M.	52055.740(a)	Teacher Experience Index Average Be Temporarily Reduced Due to Attrition	Manzanita Community Elementary School	2010-2011
6:06 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Madison Middle School	2010-2011
6:07 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Horace Mann Elementary School	2010-2011
6:08 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Hoover Elementary School	2010-2011
6:09 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Claremont Middle School	2010-2011
6:10 P.M.	52055.740(a)	Teacher Experience Index Average Be Temporarily Reduced Due to Attrition	Claremont Middle School	2010-2011
6:11 P.M.	52055.740(a)	Class Size Reduction Targets Temporarily Increased	Urban Promise Academy	2010-2011

Each individual and separate Public Hearing will be held January 25, 2012, at the time stated herein or as soon thereafter as the matter may be heard, in the Board Room of the Oakland Unified School District, Paul Robeson Building, 1025 2nd Avenue, Oakland, California 94606.

The purpose of each public hearing is to receive comments from the public on the District's request for a waiver of all or a portion of the Education Code Section for the reason stated herein for School Year 2010-2011.

A copy of each school's aforementioned General Waiver Request is available for review prior to the public hearing via computer terminal in the first floor lobby, the Office of the Superintendent in Room 301 or in the Office of the Board of Education in Room 320 at the Oakland Unified School District Paul Robeson Building, 1025 2nd Avenue, Oakland, CA 94606-2212 and on the World Wide Web at http://publicportal.ousd.k12.ca.us/1994108189255553/site/default.asp on or after January 15, 2012.

/s/ Edgar Rakestraw, Jr.
Secretary, Governing Board
Oakland Unified School District

OT #4301046; Jan. 15, 22, 2012

Guidelines Section 15311(a) which applies to placement of on-premises signs. General Plan Designation: Mixed Use with Moo-Residential (MUN); Zoning Classification: Planned Unit Development - (Mtice (PUD) (Applicant: Censler Architects) (Owner: Emeryville Office, LLC) (APN: 49-1495 5)

B. Smithmound Design Guidelines - Proposed design guideknes for new pedestrian and streetscape standards for Shellbound Street between Christie Avenue and 63rd Street. An amendment to the Emeryville Design Guidelines will also be considered, to allow these guidelines to supersede the citywide design guidelines in the event there is a discrepancy between the two. CEQA Status: Environmental Impact Report for General Plan certified by the City Council on October 13, 2009.

C Sustainable Transportation Plan - Consideration of a Sustainable Transportation Plan to implement transportation policies of the General Plan. The Sustainable Transportation Plan includes strategies to improve transit services, pedestrian and bicycle connectivity, transportation demand management, parking management, and wayfinding. CEQA Status: Environmental Impact Report for General Plan certified by the City Council on October 13, 2009. (Continued from September 22, 2011 meeting.)

ADMINISTRATIVE ITEMS

A. Sustainable Communities Strategy: Scenarios Assessment and Policies - Discussion of assessment of five regional land use and transportation scenarios for 2010-2040 in terms of performance and equity, prepared by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), along with policy ideas for transportation, housing, economics, and effect on communities of concern. Performance means meeting greenhouse gas emission goals mandated by SB 375 and other goals set by the region. CEQA Status: MTC and ABAG will prepare an Environmental Impact Report for the Sustainable Communities Strategy.

In compliance with the Americans with Disabilities Act, if you need assistance to participate in this meeting, you should contact the Planning Department at (510) 596-4366. Notification 73 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

NOTE: If you challenge the adequacy of the subject application(s) in court, you will be limited to raising only those issues or alleged inadequacies which you presented to the Planning Commission orally or in writing at or prior to the public hearing. You may not be entitled to maintain a legal action against the application(s) unless you object to it, orally or in writing, at or prior to the public hearing.

DATE POSTED: January 12, 2012. For information concerning this meeting, contact the Planning and Building Department, City of Emeryville at (510) 596-4360.

OT #4300668; Jan. 15, 2012

Exhibit D - Oakland City Council Resolution Draft

ATTACHMENT B
TO 6/12/12 CED COMMITTEE AGENDA REPORT

OAKLAND LOCAL HAZARD MITIGATION PLAN (2010-2015)

2010-2015
Local Hazard Mitigation Plan

Table of Contents

Introduction

This Local Hazard Mitigation Plan is to be an amendment to the City's *Safety Element* of the General Plan. It also serves an annex to the Association of Bay Area Governments (ABAG) multi-jurisdictional Local Hazard Mitigation Plan, "Taming Natural Disasters." ABAG's website explains Hazard Mitigation as:

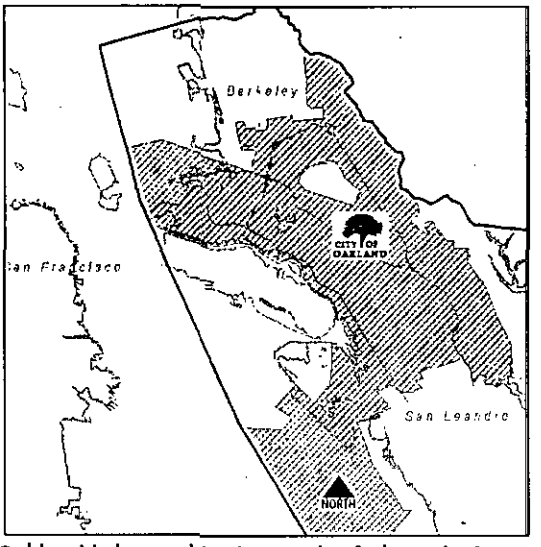
> Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. Hazard mitigation is most effective when a long-term plan is developed before a disaster occurs. A hazard mitigation plan identifies the hazards a community or region faces, assesses their vulnerability to the hazards and identifies specific actions that can be taken to reduce the risk from the hazards. The Federal Disaster Mitigation Act of 2000 (DMA 2000) outlines a process which cities, counties, and special districts can follow to develop a Local Hazard Mitigation Plan. Development of this plan is a requirement for certain benefits from CalEMA and FEMA.
>
> To assist local governments in meeting this requirement, ABAG is the lead agency on the multi-jurisdictional Local Hazard Mitigation Plan (MJ-LHMP) for the San Francisco Bay Area. Cities and counties can adopt and use all or part of this multi-jurisdictional plan in lieu of preparing all or part of a Local Hazard Mitigation Plan themselves. However, they need to have participated in the development of the multi-jurisdictional plan to adopt it. The plan was originally adopted in 2005. The 2010 plan has been adopted by ABAG and local jurisdictions are in the process of updating their annexes.[1]

City Geography and Background

Founded in 1852, the City of Oakland (City) is located on the eastern shore of the San Francisco Bay. In 2010, Oakland's population was 390,724[2]. Oakland is the third-largest city in the Bay Area, after San Jose and San Francisco, and the eighth-largest city in California[3]. Oakland is the county seat of Alameda County.

The city has a total area of 78 mi^2 (202 km^2): 56 mi^2 (145 km^2) or 72% of it is land, and 22 mi^2 (57 km^2) or 28% of it is water. The City's elevation is 42 feet above sea level. The city is bordered on the north by the cities of Berkeley and Emeryville and to the south by the city of San Leandro. To the west and across the estuary channel is the city of Alameda and to the east, Contra Costa County. Oakland is the only city in the United States with a natural saltwater lake wholly contained within its border (115-acre Lake Merritt).

[1] See ABAG's website, http://quake.abag.ca.gov/mitigation/
[2] U. S. Census Bureau (2010), *Redistricting Data (Public Law 94-171) Summary File*, Table P1
[3] CA Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2010-2011



Oakland is located in the north of Alameda County

The City is one of the most ethnically diverse places in the United States—a City with a population that is 28% African American, 25% Hispanic, and 17% Asian.[4]

In 2010-2011, the City's budget was approximately $440 million. The City employs 3,800 full-time people. The City provides local police services and local fire services. In addition, the Fire Services Agency receives $1.85 million annually in revenues from the Oakland Wildfire Prevention Assessment District.

The Port of Oakland, began in 1927, operates the Port and Oakland International Airport, and also owns additional waterfront property that it leases as commercial real estate. The Port Board consists of seven members nominated by the Mayor and appointed by the City Council. The Port employs 465 people and has an operating budget for FY 2010-2011 of $258 million.[5]

The Regional Planning Process

The City of Oakland participated in various ABAG workshops, conferences, and meetings during the development of the multi-jurisdictional Local Hazard Mitigation Plan, including:

- 2008-9 ABAG Regional Planning Committee meetings
- 2008 "Sewer Smart" Summit
- ABAG Executive Board meeting (regular attendance)
- Staff attendance at 2009 ABAG Housing and Outreach Committee meetings
- ABAG Lifeline and Hazard Review Committee standing meetings
- Various City/County Workshops
- Commitment letter on file with ABAG on May 21 ,2009
- Provided critical facilities data on June 30, 2009
- Strategies worksheet prepared September 30, 2009
- Long Term Recovery planning meetings (ABAG)

For more information on these meetings and for rosters of attendees, please see Appendix A and H in the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan 2010 (MJ-LHMP).[6] In

[4] U. S. Census Bureau (2010), *Redistricting Data (Public Law 94-171) Summary File*, Table P1
[5] Port of Oakland, "2010 - 2011 Adopted Operating and Capital Budgets," www.portofoakland.com/pdf/2010_pbs_03.pdf
[6] See ABAG's website, http://quake.abag.ca.gov/mitigation.

addition, the City of Oakland has provided written and oral comments on the multi-jurisdictional plan and provided information on facilities that are defined as "critical" to ABAG.

The Local Planning Process

Preparing the 2010 Oakland annex to the multi-jurisdictional Local Hazard Mitigation Plan is a continuation of a planning process that has been in place since the early 1970s with the adoption of the City's first Seismic and Safety elements to the City's General Plan. The City of Oakland is a leader in the regional discussion of hazards, hazards mitigation and disaster recovery. For example, Oakland Councilmember Nancy Nadel continues to serve as chair of the ABAG Earthquake and Hazards Outreach Review Committee.

Participating senior staff in the 2010 MJ LHMP update of Oakland priorities were:

- Renee Domingo, Manager of the Oakland Fire Department's Office of Emergency Services, with support from her staff;
- Leroy Griffin, Assistant Fire Marshall, Oakland Fire Department
- Eric Angstadt, Deputy Director of the Oakland Community and Economic Development Agency, and his staff
- Ray Derania, Oakland Building Official, and his staff

Office of Emergency Services regularly participates in a wide variety of federal, state, regional and local groups, task forces and workshops on disaster preparation and recovery. See Exhibit A to this Annex for a list of meetings where City of Oakland management and staff have participated.

In 2004, the City's S*afe*ty Element to its General Plan was updated, and includes a discussion of:

- public safety: including violent crime and terrorism;
- geologic hazards: including earthquake fault displacement, ground shaking, liquefaction, subsidence and settlement, slope instability or landslide hazards, erosion, soils, structural hazards, transportation facilities, and utility systems;
- fire hazards: including fire-fighting response, water supply, structural fires, wildland fires, roadway standards and emergency routes;
- hazardous materials: including business plan program, CalARP program, UST program, aboveground storage tank program, hazardous waste tiered permitting program, household hazardous water management, toxic air contaminants, contaminated sites and brownfields, transportation, pipelines, emergency response, and zoning;
- flooding hazards: including storm-induced flooding, tsunamis, seiches, dam failure, and sea-level rise.

In addition to the policies and actions outlined in the S*afe*ty Element, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA); since 1988, CEQA

requires mitigation for identified natural hazards. Additional hazard mitigation policies from the *Housing Element* and the *Land Use and Transportation Element* of the General Plan also protect residents and businesses in Oakland. The City has been a model of disaster mitigation planning, and was designated one of the first Disaster Resistant Communities in the United States.

The City's preparation of this 2010 Annex to the MJ LHMP focused on reviewing these pre-existing programs and strategies, identifying any gaps that may lead to disaster vulnerabilities, in order to work on ways to address these risks through mitigation. This effort has been minimal because of Oakland's close collaboration with ABAG in its preparation of the 2010 MJ LHMP for the region.

The City adopted a Soft Story survey by ordinance (12966 C.M.S.) in July, 2009. The new ordinance mandates that owners of certain residential buildings provide simple and low-cost information to the City about their building's ground-floor structural supports (dimensions, materials, photographs, floor plan). It does not require any type of structural retrofit. To promote participation in the program, the City sent certified letters to owners of record to approximately 1,500 apartment buildings of 5 or more units that had been previously identified as potentially having soft stories (large open spaces on the ground floor). The Building Official and other staff also made a presentation to the Rental Housing Association of Northern Alameda County (RHANAC) at their annual workshop and information fair, and ran an article in their newsletter; RHANAC also sent letters to their members.

To encourage homeowners to complete life- and property-saving retrofits, City Council approved Oakland Municipal Code Chapter 15.30.050, which incorporated basic retrofit standards into the City's Municipal Code and established a flat retrofit permit fee of $250. Currently, any homeowner of a one- to-two story, single family or duplex residence who desires to retrofit for seismic safety is eligible for the $250 flat retrofit permit fee, provided the retrofit plan meets the current seismic strengthening standards.

For owner-occupied, low-income households, the City's Redevelopment Agency offers Seismic Safety Incentive Program grants for the completion of seismic retrofit repairs.[7]

In addition to these two earthquake hazards mitigation programs, Oakland *Emergency* Services staff still participate in the quarterly *Emergency* Management Board meetings to coordinate with local stakeholders; as well as ABAG's Lifelines Infrastructure and Hazards Review Committee.

The resolution adopting this annex to ABAG's multi-jurisdictional LHMP is expected to be on the City Council agenda in March of 2012. Additionally, all of the mitigation strategies identified in this 2010 Annex will be integrated into those contained in the City's *Safety Element* of the General Plan, as an "implementation annex" to the *Safety Element*. This action requires a

[7] This program is administered by Lloyd Ware of the City's Housing and Community Development section.

resolution of the City Council, and will be based on a recommendation from the Oakland Planning Commission.

The City of Oakland has made strides in comprehensive emergency management planning through the development of the federal and state compliant Local Hazard Mitigation Plan (LHMP), Emergency Operations Plan (EOP) and Regional Catastrophic Preparedness Grant Program (RCPGP) Annexes. The LHMP assists in the mitigation of future disasters by identifying risk vulnerabilities and measures to alleviate the impact of hazards.. The EOP is an all-hazards emergency preparedness, response and short-term recovery plan designed to: serve as a basis for effective response to any hazard threatening Oakland using capabilities for the protection of citizens from the effects of disasters; facilitate the integration of mitigation in response and recovery activities; and facilitate coordination with cooperating private or volunteer organizations and County, State and Federal government in disaster situations. The RCPGP Annexes are specialized addendums to the EOP which focus on the City's response to the impact of a catastrophic earthquake on mass care and sheltering, mass transportation and evacuation, donations management, volunteer management, mass fatalities, and debris management.

Each emergency plan follows the principles and processes outline in the National Incident Management System (SEMS), California Standardized Emergency Management System (SEMS), and the Incident Command System (ICS). This provides a consistent, flexible and adjustable framework for the City to work to manage disasters regardless of their cause, size, location or complexity across all phases of emergency management: preparedness, response, recovery and mitigation.

Public Meetings

Residents and interested parties will have an opportunity to review this Annex, and the City's priorities for mitigation, weeks in advance of the anticipated summer Oakland Planning Commission public hearing, considering adoption of the Annex. The public review period will effectively last from January 2012-March 2012, with notices for public hearings and opportunities to comment via the City's website, and a notice in the Oakland *Tri*bune. There will be a second public hearing during the winter of 2012, before the Public Safety Committee of the City Council. The Oakland City Council will consider a resolution to adopt the Oakland 2010 Annex to the MJ LHMP in a third public hearing in March 2012. The mitigation strategies will become an implementation amendment of the *Safety Element* of the Oakland General Plan. Copies of the City of Oakland website, and the Oakland Tri*b*une notice, are Exhibit C of this Oakland 2010 Annex.

Past Occurrences of Disasters (natural and human-induced)

The City of Oakland has experienced a number of different disasters over the last 50 years, including numerous earthquakes, floods, droughts, wildfires, energy shortages, civil disturbances, landslides, and severe storms.

The Oakland Hills Firestorm of 1991 (the "Oakland-Berkeley Tunnel Fire"), for example, ranks as one of the worst wildland-urban firestorm disasters to ever strike the United States with 25 deaths, 150 injuries, and the displacement of over 10,000 persons. With destruction and damage to over 3,400 residential units, losses were in excess of $1.5 Billion.

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

Oakland experienced its worst flooding conditions during the storm of October 1962. Specific information on past disasters and emergencies is contained in the 2004 Safety Element, on Oakland's website.[8]

Recent declared disasters or local emergencies in Oakland, and in Alameda County were[9]:

- 2012 - -EOC Activations: Anti-Police Protests, January 7, 14, 21; Occupy Oakland, January 28 and 29
- 2011 – Occupy Oakland EOC Activations: September, October, November and Dec.
- June 12, 2011 -EOC Partial Activation- Mehserle Release Protest March/Rally
- March 11, 2011 - EOC Partial Activation Tsunami Warning Result of 8.9 Earthquake Hondshu Japan
- 2010 - Mehserle Trial EOC Partial Activations: June 30-July 1; July 6-July 8; December 3
- February 27,2010 – Chile Earthquake/Tsunami (State EOC activated; Alameda County EOC monitored situation)
- January 2009 – Oscar Grant shooting/Mehserle verdict (Civil Disturbance)
- January 2008 Winter Storms (City of Oakland declared emergency)
- November 9, 2007 Cosco Busan Oil Spill; 53,000 gallons of oil spilled into SF Bay
- April 29, 2007 Freeway Collapse; tanker truck exploded, destroying section of I-80
- 2006 Spring Storms (Alameda County); flooding, landslides and mudslides
- 2005-2006 Winter Storms (Alameda County); flooding, landslides and mudslides

8 See: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/s/GeneralPlan/DOWD009020
9 2010 Hazard Mitigation Plan, Appendix D: http://quake.abag.ca.gov/wp-content/documents/ThePlan-D-2011.pdf

More information on State and Federally declared disasters in Oakland is on ABAG's website[10].

Hazards Assessment

The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan lists nine hazards that impact the Bay Area; five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). Maps of these hazards and risks are shown on the ABAG website[11]. The hazards pose a significant risk to residents and businesses in the City of Oakland. Oakland does not face any other hazards or any natural disasters not listed in the ABAG multi-jurisdictional plan, and no new hazards have been identified by the City since the original development of this plan in 2005.

The City has undertaken a number of hazard mapping activities since the first Seismic and Safety Elements were prepared by the City. Several of these maps are the same as those on ABAG's website.[12] Additional maps, which illustrate potential hazards to city-owned buildings and property, are included in this report, below.

The City examined the hazard exposure of City urban land based on ABAG's data.[13] Of the 34,682 urban acres in the City:

- Earthquake faulting – 1,835 acres are in the Alquist-Priolo Earthquake Fault Study Zone.
- Earthquake shaking – most of the urban acres (33,925) are in the highest two categories of shaking potential, in large part because the Hayward fault runs through to the eastern portion of the City.
- Earthquake-induced landslides – the California Geological Survey has identified 4,742 acres in the Seismic Hazard Mapping Zones for this hazard.
- Earthquake liquefaction – 17,261 acres are in areas of moderate, high, or very high liquefaction susceptibility mapped by the U.S. Geological Survey; while 14,360 are in the California Geological Survey's Seismic Hazard Mapping Zones for this hazard.
- Tsunamis – While tsunamis may be a hazard in the City of Oakland, the mapping of the inundation area has not been completed at this time. Some recent research indicates that the run-up elevation may be as high as 50% of the wave height at the Golden Gate Bridge. Since that height is currently estimated at 42 feet, this would indicate that the height in Oakland would be as great as 21 feet. However, other researchers estimate that the maximum event would be far less. The most vulnerable facilities are in the waterfront area, particularly the lands owned by the Port of Oakland.
- Flooding –578 acres are in the 100-year flood plain, while an additional 1,865 acres are in other flood-prone areas.

[10] http://quake.abag.ca.gov/mitigation/ThePlan-D-Version-December09.pdf
[11] http://quake.abag.ca.gov/mitigation/.
[12] See "Map Plates": http://quake.abag.ca.gov/wp-content/documents/Map-Plates.pdf
[13] http://quake.abag.ca.gov/mitigation/landuse/

- Landslides – 2,034 acres are in areas of existing landslides ("mostly a landslide area").
- Wildfires – 2,393 acres are subject to high, very high, or extreme wildfire threat; and 18,676 acres are in wildland-urban interface threat areas.
- Dam Inundation – 5,427 acres in Oakland are subject to dam failure inundation.
- Drought – all 34,682 urban acres in Oakland are subject to drought.

Risk Assessment

Urban Land Exposure

The City examined the hazard exposure of Oakland's urban land, based on information in ABAG's website[14]. The "2005 Existing Land Use with 2009 Mapping" file was used for this evaluation. For maps and more detailed descriptions of specific Hazards, see the Safety Element of the Oakland General Plan.[15]

In general, the hazard exposure of Oakland is increasing over time as the amount of urban land increases (In the last five years, 871 acres of land has become urban). Oakland actually reduced the acres of urban land in the 100 year flood zone over the last 5 years due to changes in the new FEMA flood maps. Table 1 describes the exposure of urban land within the City to the various hazards.

[14] See http://quake.abag.ca.gov/mitigation/landuse
[15] Available at: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/s/GeneralPlan/DOWD009020

Table 1. Exposure (acres of urban land)			
Hazard	Plan Year 2005	Plan Year 2010	Change
Total Acres of Urban Land	33,811	34,682	871
Earthquake Faulting (within CGS zone)	1,858	1,835	(23)
Earthquake Shaking (within highest two shaking categories)[18]	33,081	33,925	844
Earthquake-Induced Landslides (within CGS study zone)[17]	4,586	4,742	156
Liquefaction (within moderate, high, or very high liquefaction susceptibility	16,247	17,261	1,014
Flooding[18] (within 100 year floodplain)	663	578	(85)
Flooding (within 500 year floodplain)	1,756	1,865	109
Landslides (within areas of existing landslides)	2,335	2,034	301
Wildfire (subject to high, very high, or extreme wildfire threat)[19]	2,495	2,393	(102)
Wildland-Urban Interface Fire Threat	19,251	18,676	(575)
Dam Inundation (within inundation zone)	5,354	5,427	73
Sea Level Rise[20]	Further research needed		
Tsunamis[21] (within inundation area)	Further research needed		
Drought[22]	33,811	34,682	871

Infrastructure Exposure

The City of Oakland also examined the hazard exposure of infrastructure within the jurisdiction based on the information on ABAG's website.[23] Of the 1,178 miles of roadway in Oakland, Table 2 shows the miles of roadway (as well as transit and rail infrastructure) which are exposed to the various hazards analyzed.

[16] In large part because the Hayward, Greenville, and Calaveras fault systems run through the County.
[17] The California Geological Survey continues to map Alameda County and added the Livermore-Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the densely populated areas in Alameda County are mostly done.
[18] Urban land exposure to 100 year floodplain decreased, likely due to better and more accurate FEMA mapping.
[19] The decrease is due to better and more accurate mapping.
[20] The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.
[21] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Acres of exposed land are not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.
[22] The entirety of the City of Oakland is subject to drought.
[23] See http://quake.abag.ca.gov/mitigation/pickdbh2.html

Table 2. Exposure (miles of infrastructure)						
Hazard	Roadway		Transit		Rail	
	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010
Total Miles of Infrastructure	1,086	1,178	19	30	39	44
Earthquake Shaking (within highest two shaking categories)	1,078	1,166	18	30	38	42
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility	516	642	14	27	36	43
Liquefaction Hazard (within CGS study zone)[24]	422	496	14	24	39	42
Earthquake-Induced Landslides (within CGS study zone)[25]	69	66	1	1	0	0
Earthquake Faulting (within CGS zone)	66	72	0	0	0	0
Flooding (within 100 year floodplain)	12	8	0	0	1	1
Flooding (within 500 year floodplain)	58	70	3	5	5	7
Landslides (within areas of existing landslides)	46	73	0	0	0	0
Wildfires (subject to high, very high, or extreme wildfire threat)	54	42	0	0	0	0
Wildland-Urban Interface Fire Threat	560	608	6	9	4	8
Dam Inundation (within inundation zone)	179	203	4	7	6	7
Sea Level Rise[26]	More research needed					
Tsunamis[27]	More research needed					
Drought[28]	not applicable					

[24] 681 miles of roadway, 6 miles of transit, and 2 miles of rail are outside the area that has been evaluated by CGS for this hazard
[25] 1,112 miles of roadway, 29 miles of transit, and 44 miles of rail are outside the area that has been evaluated by CGS for this hazard
[26] The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.
[27] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Miles of exposed infrastructure is not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.
[28] Drought is not a hazard for roadways.

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

The City provided a list of City-owned buildings, critical health care facilities and schools within City limits to ABAG; ABAG provided a detailed assessment of the hazard exposure of each of these facilities. Table 3 shows the number of facilities exposed to the various hazards analyzed.[1]

[1] For data, see ABAG's website, http://quake.abag.ca.gov/mitigation/pickcrit2010.html.

Table 3. Exposure (number of facility types)								
Hazard	Hospitals[2]		Schools		City-owned[3] critical facilities		City-owned bridges and interchanges	
	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010
Total Number of Facilities	7	8	133	205	65	312	157	155
Earthquake Shaking (within highest two shaking categories)	7	8	133	204	65	311	157	152
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility	4	4	61	121	51	176	131	134
Liquefaction Hazard (within CGS study zone)	2	3	47	72	42	119	123	123
Earthquake-Induced Landslides (within CGS study zone)	0	0	9	0	2	0	1	0
Earthquake Faulting (within CGS zone)	0	0	5	8	1	30	0	0
Flooding (within 100 year floodplain)	0	0	1	0	0	1	4	2
Flooding (within 500 year floodplain)	0	0	7	14	4	22	31	30
Landslides (within areas of existing landslides)	0	0	0	0	2	15	3	1
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	2	0	0	4	3	0
Wildland-Urban Interface Fire Threat	2	4	65	91	28	173	60	61
Dam Inundation	2	3	20	33	9	31	44	45
Sea Level Rise (exposed to 16" and 55" sea level rise)[4]	-		-		-		-	
Tsunamis[5] (within inundation area)	-		-		-		-	
Drought[6]	-	-	-	-	-	-	-	-

[2] ABAG collected data on Hospitals, Long Term Care Facilities, Primary Care or Specialty Clinics, and Home Health Agencies or Hospices. This table only shows the data for Hospitals. Further information available at http://quake.abag.ca.gov/mitigation/pickcrit2010.html

[3] ABAG collected data on City-Owned, County-Owned, and Special District-Owned facilities. This table reports only the data for City-owned facilities. Further information available at http://quake.abag.ca.gov/mitigation/pickcrit2010.html.

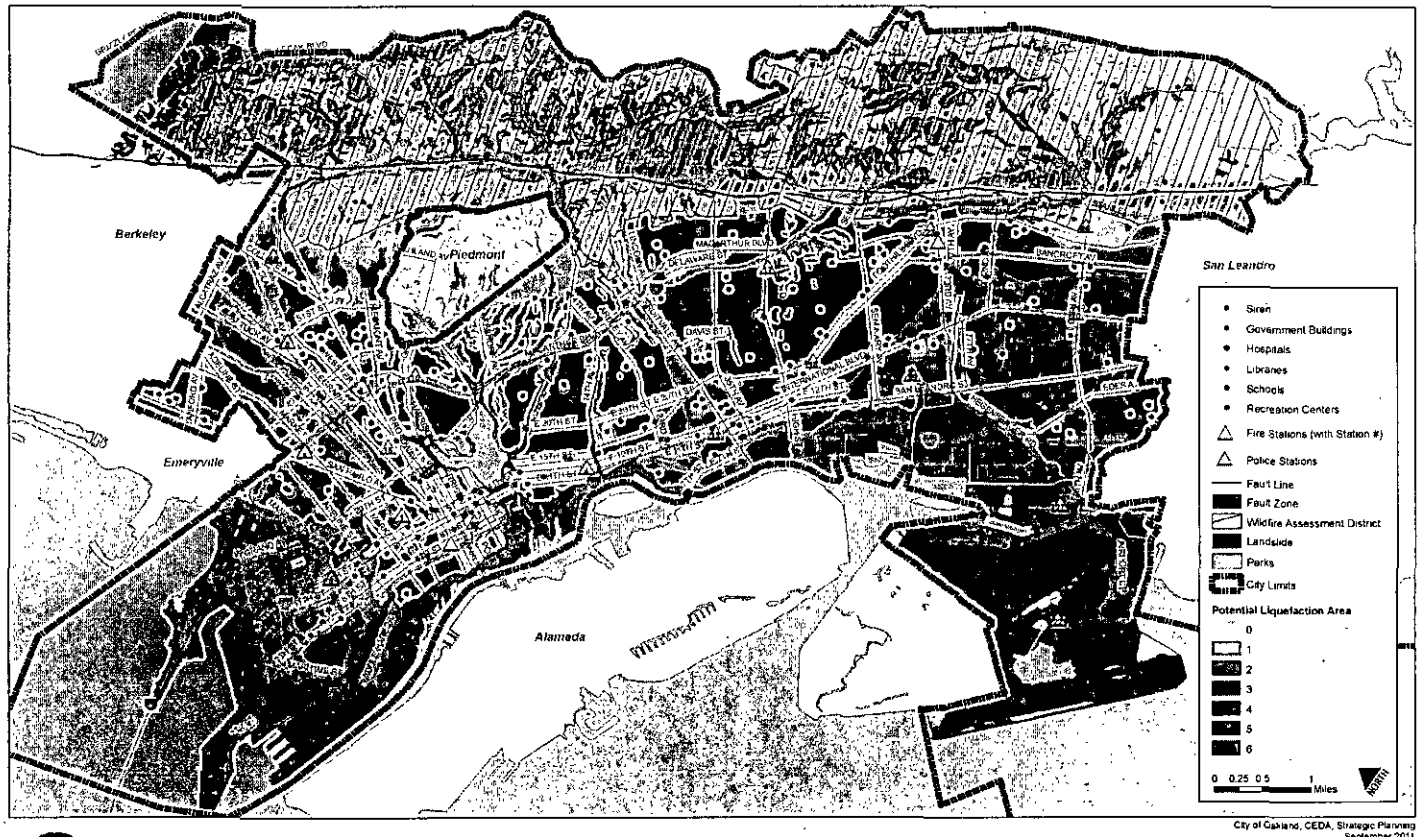
[4] Sea level rise data was not available in 2005

[5] Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.

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

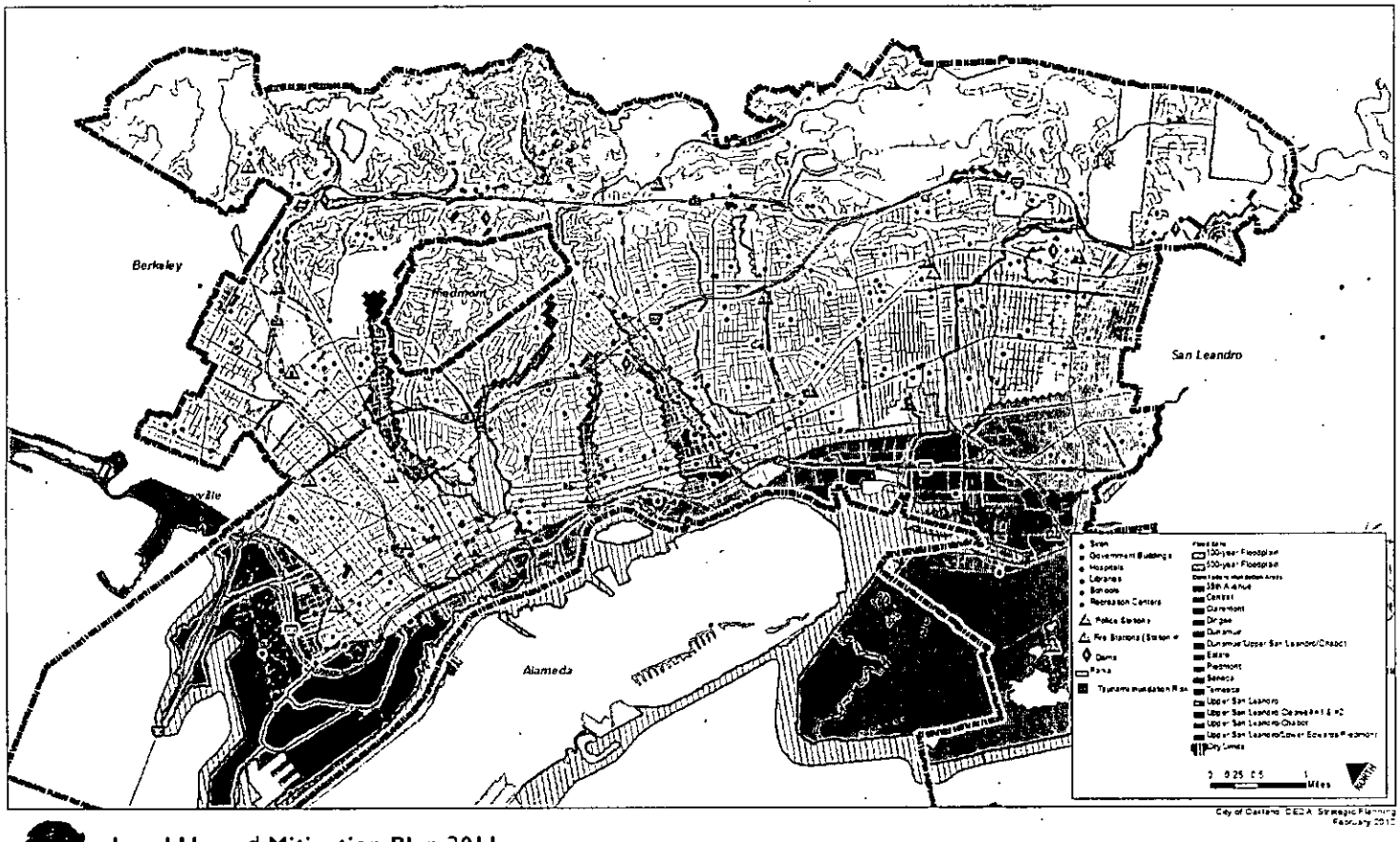
Maps of Hazards and City facilities

The City of Oakland has mapped critical facilities, such as schools, hospitals, and other city-owned structures and facilities with the latest data on major hazards, such as flooding, and liquefaction. The following maps show those hazards (geologic and hydrologic), and those facilities.



CITY OF OAKLAND

Local Hazard Mitigation Plan 2011
Local Geological Hazard Information - Geological



Local Hazard Mitigation Plan 2011
Local Natural Hazard Information -- Hydrological

Other risks

The City of Oakland will continue to work with ABAG to improve the risk assessment information being compiled by ABAG, including developing ways to assess how many soft-story buildings are located in the City. In 2010-2011, Oakland began a self-reported soft-story inventory for building owners, and is considering requiring mandatory retrofits for property owners.

The City's Sustainable Oakland staff participates in the joint San Francisco Bay Conservation and Development Commission/National Oceanic Atmospheric Administration program, Adapting to Rising Tides.[35] This forum brings together regional stakeholders to address impacts from eventual sea level rise in the Bay, and on surrounding communities.

Natural Gas pipelines run through Oakland, and rupture of a gas pipeline could lead to an explosion. Pipelines run under San Leandro Street in East and Central Oakland, under 2nd and 4th Streets in Jack London Square, and under Linden Street in West Oakland. PG&E provides a map of these pipelines on its website[36], and also keeps a list of pipeline segments which are monitored, the "Top 100" list. No pipelines in Oakland, however, are on PG&E's "Top 100" list.

Oakland has a high exposure to "manmade hazards," which FEMA describes[37] as terrorism and technological hazards, such as hazardous materials releases. Oakland has the Port of Oakland, regional attractions such as the Oakland Coliseum, regional transportation such as BART and high profile governmental facilities such as the Post Office in West Oakland. The City's *Safety Element*, in chapters on "Public Safety" and "Hazardous Materials," describes the policies and actions the City takes to prevent manmade hazards from occurring[33].

The conclusion is that earthquakes (particularly shaking), wildfire, and landslides (including unstable earth) pose a significant risk for potential loss. As noted in the City's *Safety Element*, in addition to the Hayward fault, Oakland is in close proximity to the Calaveras and San Andreas faults. Of these three faults, the Hayward fault poses the most serious threat by far to Oakland, due to its location through the city, the intensity of land uses near the fault zone, and the long interval since a major quake along the fault. There are no additional risks or vulnerabilities which Oakland is planning mitigation measures for, beyond those reported in the Bay Area MJ LHMP.

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[35] See project website, http://risingtides.csc.noaa.gov/index.html
[36] See PGE website: http://www.pge.com/myhome/edusafety/systemworks/gas/transmissionpipelines/index.shtml
[37] See FEMA report, "Integrating Manmade Hazards into Mitigation Planning" (pg 11): http://hazardmitigation.calema.ca.gov/docs/howto7_Integrating_Manmade_Hazards.pdf
[38] See City of Oakland *Safety Element*, pages 11 and following, and 71 and following: http://www2.oaklandnet.com/Government/o/CEDA/o/PlanningZoning/s/GeneralPlan/DOWD009020

National Flood Insurance Program

The City of Oakland has participated in the National Flood Insurance Program (NFIP) since 1970[39]. The most recent action which continues the City's compliance with the NFIP was in 2009[40]. FEMA reports that there are 310 flood insurance policies in Oakland, representing a total coverage of $86 million. There have been 78 paid flood insurance losses in Oakland—for a total of $266,564.

Repetitive Loss Properties

FEMA defines a "repetitive loss property" as a "property for which two or more National Flood Insurance Program losses of at least $1,000 each have been paid within any ten year period since 1978."

As of November, 2011, there are six repetitive loss properties in the City of Oakland, according to FEMA[41]. Of the six properties, one is inside the special flood hazard area, and all properties are residential.[42] By comparison, in 2004, the City had five repetitive loss properties that were outside the flood plain.

Mitigation Goals and Objectives

The goal of the ABAG MJ-LHMP is to maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters. This goal is unchanged from the 2005 plan and continues to be the goal of the City of Oakland in designing its mitigation program.

Additionally, the City of Oakland has the specific objective of reducing the number of public and private buildings within the City that are vulnerable to the effects of earthquakes. The City has focused on seismic retrofitting as a pre-disaster mitigation. The program has two prongs:

- Seismic Retrofitting for single family homeowners
- Seismic Screening for property owners of multi-family soft story residential buildings of 5 or more units.

Single Family Program

In July 2008, when Oakland had a surplus in real estate transfer taxes, the City instituted the Seismic Strengthening Incentive Program for Single Family Homeowners. The City set aside $1 million from real estate transfer tax for a two year program. Details of the program included:

[39] Oakland has been, according to FEMA, a "full status" member in the program, since 1982.
[40] See Ordinance 12960, adopted July 21, 2009.
[41] Phone discussion with Sarah Owen, of the National Flood Insurance Program. Also, see ABAG's website: http://quake.abag.ca.gov/mitigation/pickflood.html.
[42] According FEMA, payments to these six properties from the Flood Insurance Program total $51,000.

- Flat rate permit fee ($250) for those who met the City's retrofitting standards (otherwise, applicants would pay 10% of construction fee for the permit)
- Applicants who signed up within 60 days of purchase, and met the City's seismic retrofitting standards, and completed the retrofitting within 18 months, were eligible for up to $5,000 reimbursement
- The City included retrofitting standards—akin to Plan Set A or a custom designed plan by a licensed structural engineer—in its Building Code.

At the time, the State of California had not adopted such a code, and Oakland was one of the first to do so. This was important because consumers had no way of comparing bids, or assuring that what they were paying for was effective. Last fail, the State adopted standards.

The Single Family seismic retrofit program was successful. In the year prior to implementation, only six people had taken out retrofit permits. During the two years the program was funded, more than 360 people participated, showing the City that incentives do work. It also showed staff that the most effective outreach was to connect with property owners purchasing older homes at the time of purchase. Owners understood that by performing the seismic retrofit, they were protecting a large investment, and adding the typical cost of a $3,000 to $10,000 for retrofitting at the time they were applying for the mortgage was not onerous.

The City offers a similar program to home owners who live in one of the city's redevelopment zones and meet federal low income requirements. Participants eligible for $5,000 grant for half the cost of retrofitting; the remainder can come from no-cost loans. This current program has had only a few applicants.

Mandatory Soft Story Screening Program
Working with Association of Bay Area Governments, Earthquake Engineering Research Institute, Structural Engineering Association of Northern California and others, Oakland identified 1,500 potential soft-story multi-family apartments and condominiums.

In July 2009, Council passed a mandatory soft-story screening program that requires property owners to complete a simple, low-cost screening to verify that the building is, indeed, a soft-story multi-family structure that has not yet been retrofitted.

When the survey is completed (approximately by 2012), Council will determine next steps: either a mandatory structural engineering report, and a voluntary, or mandatory, seismic retrofit.

Typical engineering costs are $10,000; retrofitting of the first floor runs about $10,000- $50,000 or more, per unit.

Mitigation Activities and Priorities

Evaluation of Progress from 2005 Plan

As a participant in the 2010 ABAG multi-jurisdictional planning process, the staff of the City of Oakland helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan, known as *Taming Natural Hazards*. Appendix G of ABAG's *Taming Natural Hazards* presents a summary list of the more than 300 mitigation strategies and actions, with regional priorities and the hazards mitigated.[43] The decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment, or to our heritage. Representatives from multiple departments then met on a regular basis to review progress on Oakland's 2005 strategies, to identify and prioritize additional mitigation strategies to update the list.

These draft priorities were submitted to management of the City's Community and Economic Development Agency and the Fire Department's Office of Emergency Services, for review. The draft priorities will be provided to the Oakland Planning Commission and the Oakland City Council for adoption in the beginning of 2012.

The Oakland planning team also prioritized specific mitigation tasks for the next five years. This list includes implementation process, funding strategy, responsible agency, and approximate time frame.

The City ranked those regional strategies and actions in a spreadsheet, using the following scale:

- 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 summary of these rankings is presented in Attachment B to this annex: Oakland Mitigation Strategies and Actions 2010. Oakland's ranking of priorities on the mitigation measures were essentially unchanged from the 2005 LHMP to the 2010 MJ LHMP. The single exception is:

[43] See ABAG's website, http://quake.abag.ca.gov/wp-content/documents/ThePlan-G-2010.pdf

- Housing 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.* 2005 priority: Moderate; 2010 priority: Existing program.

Completed Projects

As noted in the 2005 Local Hazard Mitigation Plan, the City has retrofitted several critical facilities, including City Hall and seventeen of the twenty-five fire stations, for earthquake shaking. If a retrofit was not cost effective, the fire station was demolished and replaced. Seven fire stations have been rebuilt during the years 1994, 1995, 1997 (2), 1998, 1999, 2002 and 2010.

In 2008, the City also adopted the S-19 Health and Safety Protection Combining Zone. The intent of the zone is to promote the public health, safety and welfare by ensuring that activities and businesses which use hazardous material substances or store hazardous materials, hazardous waste, or explosives locate in appropriate locations and develop in such a manner as not to be a serious threat to the environment, or to public health, particularly to residents living adjacent to industrial areas where these materials are commonly used, produced or found.

In 2009, City staff participated, and ABAG adopted the *Long-Term Disaster Recovery Plan – Part One*, the intention of which is:

> ...to develop a model action plan for the City of Oakland, as well as to identify the components of this type of plan for the cities and counties of the San Francisco Bay Area. We hope that this Plan serves as a catalyst for dialog on public policies and actions needed to improve disaster recovery planning.
>
> This June 2009 Plan only covers four of the nine issues identified by ABAG as critical to recovery financing issues: recovery of government facilities and services; long-term housing recovery; and long-term recovery of business. It is the intent of ABAG to prepare the second portion of this document that will have additional chapters covering long-term recovery of health care, schools and education, utilities and transportation, and land use change, as well as the overall issue of governance.[44]

Current Projects

There are several current projects the City is completing which will enhance its response to and recovery from a disaster. The City is currently updating the plans and operations programs which guide staff and employees during disaster recovery. During the summer of 2011, a team of OES staff is directing a comprehensive update of the City's Emergency Operations Plan. In addition, OES staff is also updating specific annexes to the Regional Catastrophic Preparedness Grant Program (as adopted by the Council in 2009).

[44] See page ii of the Report: http://quake.abag.ca.gov/wp-content/uploads/2010/10/PR-Recovery-Oakland-Phase-One1.pdf

City staff and stakeholders from area hospitals, utilities and other groups meet quarterly as the Emergency Management and Preparedness Council, staffed by OES. In addition, OES runs Citizens of Oakland Responding to Emergencies (CORE), which, since its inception in 1990, has provided free, community-based training to more than 18,000 residents.

The City is underway on its Soft Story Seismic Screening program. In 2009, the City Council adopted an ordinance which created a mandatory seismic screening program for residential buildings (of five or more units). Building owners, after notification by the City, have until July 29, 2011 to submit a screening form. The Building Official (in the Community and Economic Development Agency) is processing and analyzing the forms submitted to date, in order to prepare an inventory of soft-story buildings in Oakland.

In June, 2011, the City completed the "Project 25 Public Safety Communications" system upgrades, continuing to fulfill the City's long-standing commitment to advancing the goal of regional interoperable public safety radio communications. The City has received millions of dollars of federal grants and invested millions of dollars in local revenues to further this mission. The City now has a new, all-digital emergency communications system that is fully compliant with the national P25 interoperability communications standard.

In January 2012, the City sought continuation of an existing contract with an international engineering firm, enabling them to continue their design, bidding and construction support for the seismic upgrades of seven bridges owned by Caltrans in the City of Oakland, under the Seismic Safety Retrofit Program. Completion of bridge seismic retrofit projects will ultimately improve seismic response of City facilities during earthquakes.

Future Mitigation Actions and Priorities

The City of Oakland is participating in a Bay Area regional Public Safety Broadband Technology project—a series of 4G networks which will enable different public safety agencies to share maps, video and other critical data via broadband communications networks. This regional system will be available during day to day emergencies and in the event of a disaster which could disable standard communications and data sharing systems. The City's Department of Information Technology, Fire Department, Police Department and Office of Emergency Services are involved in this innovative Bay Area regional the 700 MHz Public Safety Broadband Network will be designed to assist (police officers) to have instant access to criminal databases for suspect information, improved situational awareness using video technologies, and real time tracking of assets for firefighters and law enforcement agencies would be eventually available throughout the region.

For example, utilizing a shared voice and broadband data network, a battalion chief at an incident scene could communicate directly with a power utility worker, while downloading critical building floor plan information, and uploading video to the Incident Commander at an emergency incident. A police commander could communicate with mutual aid partners, such

as the state patrol, or federal partners, to secure perimeters and effectively deploy resources. This program implements mitigation measure Government C-7. The pilot broadband system will be completed by or about July 2013. A Joint Powers Agreement is being developed to determine future enhancements and how the system will be built, operated/managed and maintained.

Another new project over the next five years is the validation of Oakland's soft-story buildings inventory, relative to vulnerable facilities during a major earthquake on the Hayward Fault.

On-Going Mitigation Strategy Programs

The City of Oakland has many on-going mitigation programs that help create a more disaster-resistant city. The following list selects from those programs and policies identified as *Existing Programs* in the mitigation strategy spreadsheet. Others are on-going programs that are currently *underfunded*. Appendix B contains all 300 policies that ABAG adopted in the MJ LHMP, and Oakland's assignment of priorities to each policy. it is the City's priority to find additional funding to sustain these on-going programs over time.

- 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. (Economy-b-4)
- 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. (Environment-a-6)
- 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). (Government b-2)
- Participate in developing and maintaining a system of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies. (Government-C-7)
- Maintain the local government's emergency operations center in a fully functional state of readiness. (Government-c-10)
- Participate in FEMA's National Flood Insurance Program. (Government-d-5)
- 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. (Housing d-1)
- As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems. (Infrastructure a-21)
- Use hazard abatement districts as a funding mechanism to ensure that mitigation strategies are implemented and enforced over time. (Land G-1)

Incorporation into Existing Planning Mechanisms

The City of Oakland will adopt the policies and priorities of the 2010 LHMP annex as an amendment to the 2004 *Safety Element* of the General Plan. The *Safety Element* is the City's overall policy document for addressing and mitigating hazards such as public safety, geologic hazards (earthquakes), fire, hazardous materials and flooding. In addition, the City enforces the requirements of the California Environmental Quality Act (CEQA), which, since 1988, requires mitigation for identified natural hazards. The City used these pre-existing policies and regulations as a basis for identifying gaps which may lead to disaster vulnerabilities, in order to work on ways to address these risks through mitigation.

In March, 2011, the City brought a draft Energy and Climate Action Plan to the City Council, which outlines a ten year plan, including more than 150 actions, that will enable Oakland to achieve a 36% reduction in green house gas emissions by 2020[46]. The Plan also recommends steps the City can take to help Oakland adapt to the impacts of climate change and increase community resilience.

The City funds a Capital Improvement Program (CIP), which was last adopted as part of the 2009-2011 budget. The CIP includes funds for projects which will improve mitigation to hazards in Oakland.[46]

Annex -- Update Process

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

The City is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Office of Emergency Services will ensure that monitoring of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our City, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of department leaders at least once a year in April. At that meeting, the department heads will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. The Department leaders will be responsible for determining if the plan should be updated.

The public will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of annex, the City will provide the opportunity for the public to comment on the updates, announced through the City's website[47]

[45] See http://www2.oakiandnet.com/oakca/groups/pwa/documents/policy/oak024383.pdf
[46] See http://www2.oaklandnet.com/oakca/groups/cityadministrator/documents/policy/dowd005562.pdf
[47] See City's webpage: www.oaklandnet.com.

and at two public hearings in the winter of 2012. A public notice will be printed in the Oakland *Tribune*, prior to the meeting, to announce the comment period and meeting logistics. Copies of the public outreach materials are attached to the report as Exhibit C.

Mitigation Plan Point of Contact

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Exhibit A- City Participation in Emergency Preparedness Coordination

Management and staff of the Oakland Fire Department's Office of Emergency Services conduct, or participate as members in the following boards, councils or groups:

Federal

- Federal Emergency Management Agency (FEMA) National Advisory Committee and sub-committees on Special Needs, National Response Framework, Post Disaster Housing, Stafford Act, Target Capabilities List and Urban Search & Rescue
- International Association of Emergency Managers (IAEM)
- FEMA Region 9 Advisory Council
- FEMA Target Capabilities Implementation Project - Risk Management Technical Working Group
- Federal Executive Board - San Francisco Continuity of Operations (COOP) Working Group

State

- Statewide Emergency Preparedness Committee (SWEPC)
- California Emergency Managers Association (CESA)
- Medical Reserve Corps Advisory Committee (MRC)
- California Emergency Management Agency (CalEMA)
- Coastal Region's Mutual Aid Regional Advisory Committee (MARAC)
- Bay Area Urban Area Strategic Initiative (BAUASI) member of Approval Authority, Emergency Management Advisory Group and planning groups for Training and Exercise, CBRNE (Chemical, Biological, Radiological, Nuclear & Explosives), Information Sharing, Infrastructure Protection, Communications Interoperability, Medical/Health Preparedness, Public Information/Crisis Communication and Community & Economic Resiliency
- Association of Bay Area Governments (ABAG) Hazard Mitigation Advisory Committee
- VOAD (Volunteer Organizations Active in Disasters) for Northern California
- American Red Cross, Bay Area
- Northern California Area Maritime Security Committee (AMSC)
- Radio Amateur Civil Emergency Service (RACES)
- Bay Area Resiliency Network (BARN)
- Regional Catastrophic Preparedness Grant Program (RCPGP) member of Advisory Group and subcommittees for Debris Management, Transportation & Evacuation, Mass Care & Shelter, Mass Fatality and Volunteer Management
- Golden Guardian 2010 BAUASI Steering Committee
- Bay Area Terrorism Working Group (BATWG)
- Terrorism Liaison Officers Working Group (TLO)
- Northern CA Regional Terrorism and Threat Assessment Center (NC-RTTAC)
- Metropolitan Transit Committee (MTC)

- San Francisco Bay & Delta Area Committee
- Region II Public Health Emergency Preparedness Coordinators
- BARC/*f*irst (Bay Area Response Coalition - financial services)
- BENS (Business Executives for National Security)
- BRMA (Business Recovery Managers Association)

Local

- Alameda County's Emergency Managers Association (ALCO EMA)
- Alameda County's Terrorism Early Warning Group (TEWG)
- Alameda County's Volunteer Management Working Group [
- Alameda County's Mass Care & Shelter Working Group
- Alameda County Health & Medical Strategic Initiative Planning Group and subcommittee on Leadership
- Alameda County Medical Center's Disaster Council
- Alameda County Local Oil Spill Contingency Planning Group
- Communities of Oakland Respond to Emergencies (CORE) Advisory Task Force
- Oakland Radio Communications Association (ORCA)
- Emergency Management and Disaster Preparedness Council (EMADPC) Officer and members of task forces for Transportation, Mass Care, Mass Transportation & Evacuations and Labor & other Groups
- Mayor's Commission on Aging
- Mayor's Commission on Persons with Disabilities
- City of Oakland Golden Guardian Planning Group
- City of Oakland Paratransit Roundtable Planning Group
- City of Oakland Hazard Mitigation Plan Strategies Group
- Oakland Aviation Security Committee
- Amtrak Station Action Planning Committee
- Berkeley-East Bay Humane Society
- Oakland Medical Reserve Corps
- Oakland Chamber of Commerce
- Port of Oakland Emergency Notification Working Group
- Port of Oakland Investment Justification Grant Planning Group
- Port of Oakland Marine Terminal Response Committee

Exhibit B - Oakland Priorities for Mitigation Strategies

These are the priorities that City of Oakland staff assigned to the ABAG Multi-Jurisdiction Local Hazard Mitigation Plan Strategies. The strategies are grouped by topic: Economy; Education; Environment; Government; Health; Housing; Infrastructure; and Land Use. For a complete list of the Mitigation Plan Strategies, and the Oakland departments working on each particular program, see the Oakland table on ABAG's website:
http://www.abag.ca.gov/bayarea/eqmaps/mitigation/strategy.html

City staff assigned each strategy one of the following priorities:

- Existing Program. Mitigation strategy is an existing program for the selected jurisdiction and is adequately funded.
- Existing Program, Underfunded. Mitigation strategy is an existing program for the selected jurisdiction, but additional funds are needed to fully implement the strategy (new in 2009-2010).
- Very High. This is an unofficial program which will be adopted by the local government immediately upon adoption of its annex.
- High. The jurisdiction has plans to implement the strategy as soon as funding and resources allow; funding currently being sought.
- Moderate. The jurisdiction has plans to implement the strategy as soon as funding and resources allow; but funding is not currently being sought.
- Under Study. Implementation of this strategy is actively under study by a specific department or agency within the jurisdiction; not just to be studied at a future date.
- N/A This strategy is not applicable, not appropriate, or not cost-effective.
- NYC. This strategy has never been considered by the jurisdiction.

The abbreviations used in the table below are:

- Public Works Agency PWA
- Department of Planning and Neighborhood Preservation (formerly CEDA) DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECONOMY			
Economy: Multi-Hazard			
ECON-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 Landslide Hazard Zones (designated under the Seismic Hazard Mapping Act).	Existing	
ECON-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 Guidelines for Rehabilitation.	Existing Underfunded	DPNP/Historic Preservation
Economy: Soft-Story Commercial Buildings Vulnerable to Earthquakes			
ECON-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.	Existing	DPNP/Building Services
ECON-b-2	Adopt the 2009 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.	Existing	DPNP/Building Services
ECON-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.)	Moderate	DPNP/Building Services
ECON-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.	Existing	DPNP/Building Services
ECON-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.	Moderate	DPNP/Building Services

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Moderate	DPNP/Building Services
ECON-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).	Moderate	DPNP/Building Services/Planning and Zoning
ECON-b-8	Explore development of State regulations or legislation to require or encourage private owners of soft-story structures to strengthen them.	Moderate	
ECON-b-9	Provide technical assistance in seismically strengthening privately-owned soft-story structures.	Under Study	DPNP/Building Services
<u>Economy: Unreinforced Masonry Buildings in Older Downtown Areas</u>			
ECON-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.	Existing	DPNP/Building Services
ECON-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 (rather than voluntary) retrofit program, and/or (d) applying penalties to owners who show inadequate efforts to upgrade these buildings.	Existing Underfunded	DPNP/Building Services
ECON-c-3	Require private owners to inform all existing tenants (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.	Existing Underfunded	
ECON-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, because it has probably been retrofitted to a life-safety standard, not to a standard that will allow occupancy following major earthquakes.	Existing Underfunded	
<u>Economy: Privately-Owned Structurally Vulnerable Buildings</u>			
ECON-d-1	Inventory non-ductile concrete, tilt-up concrete, and other privately-owned structurally vulnerable buildings.	Existing Underfunded	DPNP/Building Services
ECON-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.	Existing	DPNP/Building Services

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Existing Underfunded	DPNP/Building Services; Planning and Zoning
Economy: Wildfire and Structural Fires			
ECON-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.	Existing	Oakland Fire Department
ECON-e-2	Tie public education on defensible space and a comprehensive defensible space ordinance to a field program of enforcement.	Existing	Oakland Fire Department
ECON-e-3	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.	Existing	Oakland Fire Department
ECON-e-4	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.	Existing	Oakland Fire Department
ECON-e-5	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 on existing privately-owned buildings by making installation a condition of (a) finalizing a permit for any work valued at over a fixed amount and/or (b) on any building over 75 feet in height, and/or (b) as a condition for the transfer of property.	Existing	Oakland Fire Department
ECON-e-6	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.	Existing Underfunded	Oakland Fire Department
ECON-e-7	Establish special funding mechanisms (such as Fire Hazard Abatement Districts 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.	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-e-8	Establish special funding mechanisms (such as Fire Hazard Abatement Districts or regional bond funding) to fund fire-safety inspections of private properties, roving firefighter patrols on high fire-hazard days, and public education efforts.	Existing Underfunded	Oakland Fire Department
ECON-e-9	Compile a list of privately-owned high-rise and high-occupancy buildings that are deemed, due to their age or construction materials, to be particulady susceptible to fire hazards, and determine an expeditious timeline for the fire-safety inspection of all such structures.	Existing	Oakland Fire Department
ECON-e-10	Conduct periodic fire-safety inspections of all privately-owned commercial and industrial buildings.	Existing	Oakland Fire Department
ECON-e-11	Work with the State Fire Marshall, the California Seismic Safety Commission, Pacific Earthquake Engineering Research Center (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. 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).	Moderate	Oakland Fire Department
ECON-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.	Existing	Oakland Fire Department
ECON-e-13	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.	Existing Underfunded	Oakland Fire Department
Economy: Flooding			
ECON-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.	Moderate	DPNP/Building Services
ECON-f-2	Balance the needs for private commercial and industrial development against the risk from potential flood-related hazards.	Existing	DPNP
ECON-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.	Existing	PWA
ECON-f-4	Provide sandbags and plastic sheeting to private businesses in anticipation of rainstorms, and deliver those materials to vulnerable populations upon request.	Existing	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Existing	PWA
ECON-f-6	Apply floodplain management regulations for private development in the floodplain and floodway.	Existing	DPNP/PWA
ECON-f-7	Encourage private business owners to participate in building elevation programs within flood hazard areas.	Existing	
ECON-f-8	As funding becomes available, encourage private business owners to participate in acquisition and relocation programs for areas within floodways.	Moderate	
ECON-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.	Existing	DPNP
Economy: Landslides and Erosion			
ECON-g-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 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.	Existing	DPNP
ECON-g-2	Increase efforts to reduce landslides and erosion in existing and future private development through continuing education of design professionals on mitigation strategies.	Existing Underfunded	DPNP
Economy: Construction			
ECON-h-1	Continue to require that all new privately-owned commercial and industrial buildings be constructed in compliance with requirements of the most recently adopted version of the California Building Code.	Existing	DPNP/Building Services
ECON-h-2	Conduct appropriate employee training and support continued education to ensure enforcement of construction standards for private development.	Existing	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ECON-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.	Existing Underfunded	Oakland Fire Department
Economy: Building Reoccupancy			
ECON-i-1	Institute a 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.	Existing Underfunded	DPNP
ECON-i-2	Actively notify private 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 buildings, thus reducing the likelihood that the buildings will be inappropriately evaluated following a disaster.	Existing Underfunded	DPNP
ECON-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.	Existing Underfunded	DPNP
ECON-i-4	Allow private building owners to participate in a BORP-type program as described above, but not actively encourage them to do so.	Existing Underfunded	DPNP
ECON-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 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.	Moderate	DPNP
ECON-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.	Existing Underfunded	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
Economy: Public Education			
ECON-j-1	Provide information to private business owners and their employees on the availability of interactive hazard maps on ABAG's web site.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-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.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-j-3	Develop and print materials, conduct workshops, and provide outreach to Bay Area private businesses focusing on business continuity planning.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-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.	Existing Underfunded	DPNP/ Oakland Fire Department (OES)
ECON-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.]	Existing Underfunded	Oakland Fire Department/OES
ECON-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.	Existing Underfunded	Oakland Fire Department (OES)/Library
ECON-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.	Existing	Oakland Fire Department/OES
ECON-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.	Existing	PWA
ECON-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.	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oaklahd Priority	Responsible Agencies
ECON-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.	Existing Underfunded	Oakland Fire Department
ECON-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.	Existing Underfunded	Oakland Fire Department/OES
ECON-j-12	Inform private shoreline-property owners of the possible long-term economic threat posed by rising sea levels.	Under Study	DPNP
ECON-j-13	Distribute appropriate materials related to disaster mitigation and preparedness to private business owners. Appropriate materials are (1) culturally appropriate and (2) suitable for special needs populations. For example, such materials are available on the http://www.preparenow.org website and from non-governmental organizations that work with these communities on an on-going basis.	Existing	Oakland Fire Department/OES
EDUCATION			
Education: Focus on Critical Facilities			
EDUC-a-1	Assess the vulnerability of critical public education facilities to damage in natural disasters and make recommendations for appropriate mitigation.	Not applicable for a city	State Architect
EDUC-a-2	Retrofit or replace critical public education facilities that are shown to be vulnerable to damage in natural disasters.	Not applicable for a city	State Architect
EDUC-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.	Not applicable for a city	State Architect
EDUC-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.	Not applicable for a city	State Architect
EDUC-a-5	Assess the vulnerability of critical private education, pre-school, and day care facilities to damage in natural disasters and make recommendations for appropriate mitigation.	Not applicable for a city	State Architect
EDUC-a-6	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 can also be created 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.	Not applicable for a city	State Architect

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
Education: Use of Educational Facilities as Emergency Shelters			
EDUC-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.	Not applicable for a city	OUSD
EDUC-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.	Not applicable for a city	OUSD
EDUC-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.	Not applicable for a city	OUSD
Education: Actions Related to Disaster Preparedness and Recovery Planning			
EDUC-c-1	Encourage employees of schools to have family disaster plans and conduct mitigation activities in their own homes.	Not applicable for a city	OUSD
EDUC-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 ovedoading of streets near schools by parents attempting to pick up their children during these periods can restrict access by fire personnel and equipment.	Not applicable for a city	OUSD
EDUC-c-3	Offer the 20-hour basic CERT training to teachers and after-school personnel.	Not applicable for a city	OUSD/OES
EDUC-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.	Not applicable for a city	OUSD/OES
EDUC-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).	Not applicable for a city	OUSD/OES
EDUC-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.	Not applicable for a city	OUSD
EDUC-c-7	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.)	Not applicable for a city	OUSD

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
Education: Use of Schools as Conduits for Information to Families About Emergencies			
EDUC-d-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.	Not applicable for a city	OUSD/OES
EDUC-d-2	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website.	Not applicable for a city	OES
ENVIRONMENT			
Environment: Environmental Sustainability and Pollution Reduction			
ENVI-a-1	Continue to enforce State-mandated requirements, such as the California Environmental Quality Act, to ensure that mitigation activities for hazards, such as seismic retrofits and vegetation clearance programs for fire threat, 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.	Existing	DPNP, PWA
ENVI-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.	Existing	
ENVI-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.	Existing	DPNP
ENVI-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.	Under Study	
ENVI-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, mitigates wildfires and maintains the viability of living rivers.	Existing	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ENVI-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.	Existing	PWA
ENVI-a-7	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.	Existing	DPNP, PWA
ENVI-a-8	Explore ways to require that hazardous materials stored in the flood zone be elevated or otherwise protected from flood waters.	Existing	Oakland Fire Department
ENVI-a-9	Enforce and/or comply with the hazardous materials requirements of the State of California Certified Unified Program Agency (CUPA).	Existing	Oakland Fire Department
ENVI-a-10	Provide information on hazardous waste disposal and/or drop off locations.	Existing	PWA/Environmental Services
ENVI-a-11	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.	Under Study	
ENVI-a-12	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.	Existing Underfunded	
ENVI-a-13	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.	Existing Underfunded	PWA
<u>Environment: Climate Change</u>			
ENVI-b-1	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.	Existing	PWA/Environmental Services
ENVI-b-2	Inventory global warming emissions in your own local government's operations and in the community, set reduction targets and create an action plan.	Existing	PWA/Environmental Services
ENVI-b-3	Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities.	Existing Underfunded	DPNP/Strategic Planning

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ENVI-b-4	Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit.	Existing Underfunded	DPNP/PWA (Transportation Services)
ENVI-b-5	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.	Existing Underfunded	
ENVI-b-6	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.	Existing Underfunded	DPNP
ENVI-b-7	Purchase only Energy Star equipment and appliances for local government use.	Existing Underfunded	City Administrator
ENVI-b-8	Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system.	Existing Underfunded	DPNP
ENVI-b-9	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.	Existing Underfunded	PWA
ENVI-b-10	Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production.	Existing Underfunded	
ENVI-b-11	Increase recycling rates in local government operations and in the community.	Existing	PWA (Environmental Services)
ENVI-b-12	Maintain healthy urban forests; promote tree planting to increase shading and to absorb C02.	Existing Underfunded	PWA
ENVI-b-13	Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.	Existing Underfunded	
Environment: Agricultural and Aquaculture Resilience			
ENVI-c-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.	Not applicable	
ENVI-c-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.	Not applicable	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
ENVI-c-3	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.	Not applicable	
GOVERNMENT			
Government: Focus on Critical Facilities			
GOVT-a-1	Assess the vulnerability of critical facilities (such as city balls, fire stations, operations and communications headquarters, community service centers, seaports, and airports) to damage in natural disasters and make recommendations for appropriate mitigation.	Existing Underfunded	PWA/Oakland Fire Department (OES)
GOVT-a-2	Retrofit or replace critical facilities that are shown to be vulnerable to damage in natural disasters.	Existing Underfunded	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing Underfunded	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-a-6	When installing micro and/or surveillance cameras around critical public assets tied to web-based software, and developing a surveillance protocol to monitor these cameras, investigate the possibility of using the cameras for the secondary purpose of post-disaster damage assessment.	Moderate	PWA/Oakland Fire Department (OES)
GOVT-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.	Moderate	PWA/Oakland Fire Department (OES)
GOVT-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.	NYC	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-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.	Moderate	PWA/Oakland Fire Department (OES)
GOVT-a-10	Ensure that new government-owned facilities comply with and are subject to the same or more stringent regulations as imposed on privately-owned development.	Existing	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-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.	Existing	PWA/Oakland Fire Department (OES)
GOVT-a-13	Ensure that any regulations imposed on private-owned businesses related to repair and reconstruction (see Economy Section) are enforced and imposed on local government's own buildings and structures.	Existing	PWA/DPNP
Government: Maintain and Enhance Local Government's Emergency Recovery Planning			
GOVT-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-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).	Existing Underfunded	Oakland Fire Department (OES)
GOVT-b-3	Establish a goal for the resumption of local government services that may vary from function to function.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-b-4	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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-b-5	Plan for the emergency relocation of government-owned facilities critical to recovery, as well as any facilities with known structural deficiencies or in hazardous areas.	Existing Underfunded	Oakland Fire Department (OES)
Government: Maintain and Enhance Local Government's Emergency Response Capability			
GOVT-c-1	Develop a plan for short-term and intermediate-term sheltering of your employees.	Moderate	Oakland Fire Department (OES)
GOVT-c-2	Encourage your employees to have a family disaster plan.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-c-3	Offer CERT/NERT-type training to your employees.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-4	Periodically assess the need for new or relocated fire or police stations and other emergency facilities.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-5	Periodically assess the need for changes in staffing levels, as well as for additional or updated supplies, equipment, technologies, and in-service training classes.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-7	Participate in developing and maintaining a system of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-9	Purchase command vehicles for use as mobile command/EOC vehicles if current vehicles are unsuitable or inadequate.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-10	Maintain the local government's emergency operations center in a fully functional state of readiness.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing	Oakland Fire Department (OES)
GOVT-c-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.	Existing	Oakland Fire Department (OES)
GOVT-c-14	Install alert and warning systems for rapid evacuation or shelter-in-place. Such systems include outdoor sirens and/or reverse-911 calling systems.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-15	Conduct periodic tests of the alerting and warning system.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-c-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.	Existing	DPNP/Building Services

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-c-17	Monitor weather during times of high fire risk using, for example, weather stations tied into police and fire dispatch centers.	Existing	
GOVT-c-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 prepositioning 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.	Existing	
GOVT-c-19	Increase local patrolling during periods of high fire weather.	Existing Underfunded	Oakland Fire Department
GOVT-c-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.	Existing Underfunded	
GOVT-c-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.	Existing Underfunded	
GOVT-c-22	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.	NYC	
GOVT-c-23	Improve coordination among cities, counties, and dam owners so that cities and counties can better plan for evacuation of areas that could be inundated if a dam failed, impacting their jurisdiction.	Moderate	
GOVT-c-24	Develop procedures for the emergency evacuation of areas identified on tsunami evacuation maps as these maps become available.	Existing Underfunded	
GOVT-c-25	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.	Existing Underfunded	Oakland Fire Department (OES)
<u>Government: Participate in National, State, Multi-Jurisdictional and Professional Society Efforts to Identify and Mitigate Hazards</u>			
GOVT-d-1	Promote information sharing among overlapping and neighboring local governments, including cities, counties, and special districts, as well as utilities.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-d-2	Recognize that emergency services is more than the coordination of police and fire response; it also includes planning activities with providers of water, food, energy, transportation, financial, information, and public health services.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-d-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.	High	
GOVT-d-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.	Existing Underfunded	
GOVT-d-5	Participate in FEMA's National Flood Insurance Program.	Existing	DPNP/Building Services
GOVT-d-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.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-d-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.	Existing Underfunded	Oakland Fire Department
GOVT-d-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.	Existing	Oakland Fire Department (OES)
GOVT-d-9	Conduct and/or promote attendance at local or regional hazard conferences and workshops for elected officials and staff to educate them on the critical need for programs in mitigating earthquake, wildfire, flood, and landslide hazards.	Existing Underfunded	Oakland Fire Department (OES)
GOVT-d-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.	Existing	Oakland Fire Department (OES)
<u>Government: Take a Lead in Loss and Risk Assessment Activities</u>			
GOVT-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."	Not applicable for a city—ABAG jurisdiction	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
GOVT-e-2	Improve the risk assessment and loss estimation work in the Taming Natural Disasters report and multi-jurisdictional plan related to natural disasters. RESPONSIBILITY: ABAG only; all others are "not applicable."	Not applicable for a city—ABAG jurisdiction	
HEALTH			
Health: Hospitals and Other Critical Health Care Facilities			
HEAL-a-1	Work to ensure that cities, counties, county health departments, and hospital operators coordinate with each other (and that hospitals cooperate with the California Office of Statewide Health Planning and Development - OSHPD) to comply with current state law that mandates that critical facilities are structurally sound and have nonstructural systems designed to remain functional following disasters by 2013. In particular, this coordination should include understanding any problems with obtaining needed funding. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	Existing Underfunded	
HEAL-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	Existing Underfunded	
HEAL-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	Existing Underfunded	
HEAL-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	Existing Underfunded	
HEAL-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	Existing Underfunded	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HEAL-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	Existing Underfunded	
HEAL-a-7	Develop printed materials, utilize existing materials (such as developed by FEMA, the American Red Cross, and others, including non-profit organizations), conduct workshops, and/or provide outreach encouraging employees of these critical health care facilities to have family disaster plans and conduct mitigation activities in their own homes. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals	Existing Underfunded	
Health: Ancillary Health-Related Facilities			
HEAL-b-1	Identify these ancillary facilities in your community. These facilities are not regulated by OSHPD in the same way as hospitals. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	Existing Underfunded	
HEAL-b-2	Encourage these facility operators to develop disaster mitigation plans. RESPONSIBLE AGENCIES: Cities, counties, and county health departments	Existing Underfunded	
HEAL-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	Existing Underfunded	
Health: Coordination Initiatives			
HEAL-c-1	Designate locations for the distribution of antibiotics to large numbers of people should the need arise, as required to be included in each county's Strategic National Stockpile Plan. RESPONSIBLE AGENCIES: County Health Departments	N/A	
HEAL-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	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HEAL-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	Not Yet Considered	
HEAL-c-4	Plan for hazmat related-issues due to a natural or technological disaster. Hazmat teams should utilize the State of California Department of Health Services laboratory in Richmond for confirmation of biological agents and Lawrence Livermore National Laboratory or Sandia (both in Livermore) for confirmation of radiological agents. RESPONSIBLE AGENCIES: Cities, counties, county health departments, and hospitals.	Existing Underfunded	
HEAL-c-5	Create discussion forums for food and health personnel (including, for example, medical professionals, veterinarians, and plant pathologists) to develop safety, security, and response strategies for food supply contamination (at the source, in processing facilities, in distribution centers, and in grocery stores). RESPONSIBLE AGENCIES: County environmental health departments	Not applicable	
HEAL-c-6	Ensure mental health continuity of operations and disaster planning is coordinated among county departments, (including Public Health and Emergency Services), private sector mental health organizations, professional associations, and national and community-based non-profit agencies involved in supporting community mental health programs. First, such planning should ensure that the capability exists to provide both immediate on-site mental health support at facilities such as evacuation centers, emergency shelters, and local assistance centers, as well as to coordinate on-going mental health support during the long-term recovery process. Second, this planning should ensure that mental health providers, in collaboration with the county agencies responsible for providing public information, are prepared to provide consistent post-disaster stress and other mental health guidance to the public impacted by the disaster.	Not Applicable	
HOUSING			
Housing: Multi-Hazard			
HSNG-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 Landslide Hazard Zones (designated under the Seismic Hazard Mapping Act).	Not Yet Considered	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	Existing Underfunded	DPNP
HSNG-a-3	Develop a plan for short-term sheltering of residents of your community in conjunction with the American Red Cross.	Existing	Oakland Fire Department (OES)
HSNG-a-4	Develop a plan for interim housing for those displaced by working with the Regional Catastrophic Planning Grant Program (CPGP) that funded this effort in 2009. (Estimated completion is 2011.)	Existing	Oakland Fire Department (OES)
<u>Housing: Single-Family Homes Vulnerable to Earthquakes</u>			
HSNG-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 developed by a committee representing the East 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.	Existing Underfunded	DPNP
HSNG-b-2	Require engineered plan sets for seismic retrofitting 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.	Existing	DPNP
HSNG-b-3	Require engineered plan sets for seismic retrofitting of homes on steep hillsides (because these homes are not covered by Plan Set A).	Existing	DPNP
HSNG-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 retrofitting of single-family homes, including application of Plan Set A.	Existing	DPNP
HSNG-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 retrofitting of single-family homes.	Existing Underfunded	DPNP
HSNG-b-6	Conduct demonstration projects on common existing housing types demonstrating structural and nonstructural mitigation techniques as community models for earthquake mitigation.	Not Yet Considered	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	Moderate	DPNP
HSNG-b-8	Establish tool-lending libraries with common tools needed for retrofitting for use by homeowners with appropriate training.	Existing	DPNP/Library
HSNG-b-9	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 that makes such retrofits exempt from increases in property taxes.	Existing Underfunded	DPNP
Housing: Soft-Story Multi-Family Residential Structures Vulnerable to Earthquakes			
HSNG-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.	Existing	DPNP
HSNG-c-2	Adopt the 2009 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.	Existing	OPNP
HSNG-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.)	Moderate	DPNP
HSNG-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.	Existing Underfunded	DPNP
HSNG-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.	Moderate	DPNP
HSNG-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.	Moderate	DPNP
HSNG-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/).	Moderate	DPNP
HSNG-c-8	Explore development of State regulations or legislation to require or encourage private owners of soft-story structures to strengthen them.	Moderate	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-c-9	Provide technical assistance in seismically strengthening privately-owned soft-story structures.	Under Study	DPNP
Housing: Unreinforced Masonry Housing Stock			
HSNG-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.	Existing	DPNP
HSNG-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.	Existing Underfunded	DPNP
HSNG-d-3	Require private owners to inform all existing tenants (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.	Existing Underfunded	
HSNG-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, because it has probably been retrofitted to a life-safety standard, not to a standard that will allow occupancy following major earthquakes.	Existing	
Housing: Other Privately-Owned Structurally Vulnerable Residential Buildings and Earthquakes			
HSNG-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).	Existing Underfunded	OES
HSNG-e-2	Inventory non-ductile concrete, tilt-up concrete (such as converted lofts), and other privately-owned potentially structurally vulnerable residential buildings.	Existing Underfunded	DPNP
HSNG-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.	Existing	DPNP
HSNG-e-4	Adopt one or more of the following strategies as incentives to encourage retrofitting 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.	Existing Underfunded	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
Housing: New Construction and Earthquakes			
HSNG-f-1	Continue to require that all new housing be constructed in compliance with requirements of the most recently adopted version of the California Building Code.	Existing	DPNP
HSNG-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.	Existing	DPNP
Housing: Wildfire and Structural Fires			
HSNG-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.	Existing	Oakland Fire Department
HSNG-g-2	Tie public education on defensible space and a comprehensive defensible space ordinance to a field program of enforcement.	Existing	
HSNG-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.	Existing	DPNP
HSNG-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.	Moderate	
HSNG-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.	Existing	DPNP
HSNG-g-6	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.	Existing	DPNP
HSNG-g-7	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 on existing residential buildings by making installation a condition of (a) finalizing a permit for any work valued at over a fixed amount and/or (b) on any building over 75 feet in height, and/or (b) as a condition for the transfer of property.	Existing	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	n/a	
HSNG-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.	Existing Underfunded	Oakland Fire Department
HSNG-g-10	Establish special funding mechanisms (such as Fire Hazard Abatement Districts 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.	Existing Underfunded	Oakland Fire Department
HSNG-g-11	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.	Existing Underfunded	Oakland Fire Department
HSNG-g-12	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.	Existing	Oakland Fire Department
HSNG-g-13	Require fire sprinklers in all new or substantially remodeled multifamily housing, regardless of distance from a fire station.	Existing	Oakland Fire Department
HSNG-g-14	Require sprinklers in all mixed use development to protect residential uses from fires started in non-residential areas.	Existing	Oakland Fire Department
HSNG-g-15	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.	Existing	Oakland Fire Department
HSNG-g-16	Conduct periodic fire-safety inspections of all multi-family buildings, as required by State law.	Existing	Oakland Fire Department
HSNG-g-17	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.	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-g-18	Create a mechanism to require the bracing of water heaters and flexible couplings on gas appliances, and/or (as specified under "b. 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.	Existing	DPNP
HSNG-g-19	Work with the State Fire Marshall, the California Seismic Safety Commission, Pacific Earthquake Engineering Research Center (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).	Moderate	Oakland Fire Department
HSNG-g-20	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.	Existing Underfunded	Oakland Fire Department
Housing: Flooding			
HSNG-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.	Moderate	
HSNG-h-2	Balance the housing needs of residents against the risk from potential flood-related hazards.	Existing	
HSNG-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.	Existing	PWA
HSNG-h-4	Provide sandbags and plastic sheeting to residents in anticipation of rainstorms, and deliver those materials to vulnerable populations upon request.	Existing Underfunded	PWA
HSNG-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.	Existing Underfunded	PWA/OES
HSNG-h-6	Apply floodplain management regulations for private development in the floodplain and floodway.	Existing	DPNP/PWA
HSNG-h-7	Ensure that new subdivisions are designed to reduce or eliminate flood damage by requiring lots and rights-of-way be laid out for the provision of approved sewer and drainage facilities, providing on-site detention facilities whenever practicable.	Existing	DPNP/PWA
HSNG-h-8	Encourage home and apartment owners to participate in home elevation programs within flood hazard areas.	Existing	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-h-9	As funding opportunities become available, encourage home and apartment owners to participate in acquisition and relocation programs for areas within floodways.	Moderate	
HSNG-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.	Existing	
Housing: Landslides and Erosion			
HSNG-i-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 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.	Existing	DPNP
HSNG-i-2	Increase efforts to reduce landslides and erosion in existing and future private development through continuing education of design professionals on mitigation strategies.	Existing Underfunded	
Housing: Building Reoccupancy			
HSNG-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 ali 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.	Existing	DPNP
HSNG-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.	Existing Underfunded	DPNP
Housing: Public Education			
HSNG-k-1	Provide information to residents of your community on the availability of interactive hazard maps showing your community on ABAG's web site.	Existing	OES

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-k-4	Develop a public education campaign on the cost, risk, and benefits of earthquake, flood, and other hazard insurance as compared to mitigation.	Moderate	Oakland Fire Department (OES)
HSNG-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 of safety and security mitigation activities.	Existing	Oakland Fire Department (OES)
HSNG-k-6	Sponsor the formation and training of Community Emergency Response Teams (CERT) for residents in your community. [Note – these programs go by a variety of names in various cities and areas.)	Existing Underfunded	Oakland Fire Department (OES)
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-k-8	Institute the neighborhood watch block captain and team programs outlined in the Citizen Corps program guide.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-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.	Existing Underfunded	Oakland Fire Department (OES)/ Library
HSNG-k-10	Train homeowners to locate and shut off gas valves if they smell or hear gas leaking.	Existing Underfunded	Oakland Fire Department (OES)
HSNG-k-11	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.	Moderate	
HSNG-k-12	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.)	Existing	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
HSNG-k-13	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.	Existing	PWA
HSNG-k-14	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.	Existing Underfunded	Oakland Fire Department
HSNG-k-15	Inform shoreline-property owners of the possible long-term economic threat posed by rising sea levels.	Under Study	
HSNG-k-16	Distribute appropriate materials related to disaster mitigation and preparedness to residents. Appropriate materials are (1) culturally appropriate and (2) suitable for special needs populations. For example, such materials are available on the http://www.preparenow.org website and from non-governmental organizations that work with these communities on an on-going basis.	Existing Underfunded	Oakland Fire Department (OES)
INFRASTRUCTURE			
Infrastructure: Multi-Hazard			
INFR-a-1	Assess the vulnerability of critical facilities owned by infrastructure operators subject to damage in natural disasters or security threats, including fuel tanks and facilities owned outside of the Bay Area that can impact service delivery within the region. Note - Infrastructure agencies, departments, and districts are those that operate transportation and utility facilities and networks.	Not Applicable	PWA
INFR-a-2	If a dam owner, comply with State of California and federal requirements to assess the vulnerability of dams to damage from earthquakes, seiches, landslides, liquefaction, or security threats.	Not Applicable	
INFR-a-3	Encourage the cooperation of utility system providers and cities, counties, and special districts, and PG&E to develop strong and effective mitigation strategies for infrastructure systems and facilities.	Existing	PWA/OES
INFR-a-4	Retrofit or replace critical lifeline facilities and/or their backup facilities that are shown to be vulnerable to damage in natural disasters.	Existing Underfunded	PWA/OES
INFR-a-5	Support and encourage efforts of other (lifeline infrastructure) agencies as they plan for and arrange financing for seismic retrofits and other disaster mitigation strategies. (For example, a city might pass a resolution in support of a transit agency's retrofit program.)	Existing	PWA/OES

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-a-6	Develop a plan for speeding the repair and functional restoration of water and wastewater systems through stockpiling of shoring materials, temporary pumps, surface pipelines, portable hydrants, and other supplies, such as those available through the Water /Wastewater Agency Response Network (WARN). Communicate that plan to local governments and critical facility operators.	Existing	
INFR-a-7	Engage in, support, and/or encourage research by others (such as USGS, universities, or Pacific Earthquake Engineering Research Center-PEER) on measures to further strengthen transportation, water, sewer, and power systems so that they are less vulnerable to damage in disasters.	Existing	
INFR-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.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-9	Ensure that critical intersection traffic lights function following loss of power by installing battery back-ups, emergency generators, or lights powered by alternative energy sources such as solar. Proper functioning of these lights is essential for rapid evacuation, such as with hazmat releases resulting from natural disasters.	Existing Underfunded	PWA
INFR-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).	Existing Underfunded	Oakland Fire Department
INFR-a-11	Minimize the likelihood that power interruptions will adversely impact lifeline utility systems or critical facilities by ensuring that they have adequate back-up power.	Existing Underfunded	
INFR-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.	Existing Underfunded	
INFR-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.	Not Applicable	
INFR-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.	Existing	Oakland Fire Department (OES)
INFR-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.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-a-16	Recognize that heat emergencies produce the need for non-medical transport of people to cooling centers by ensuring that (1) transit operators have plans for non-medical transport of people during and after such emergencies including the use of paratransit and (2) cities, counties, and transit agencies have developed ways to communicate the plan to the public.	Existing Underfunded	Oakland Fire Department (OES)
INFR-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.	Not applicable	Oakland Fire Department (OES)
INFR-a-18	Develop (with the participation of paratransit providers, emergency responders, and public health professionals) plans and procedures for paratransit system response and recovery from disasters.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-19	Coordinate with other critical infrastructure facilities to establish plans for delivery of water and wastewater treatment chemicals.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-20	Establish plans for delivery of fuel to critical infrastructure providers.	Existing Underfunded	Oakland Fire Department (OES)
iNFR-a-21	As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems.	Existing Underfunded	Oakland Fire Department (OES)
INFR-a-22	Monitor scientific studies of the Sacramento-San Joaquin Delta and policy decisions related to the long-term disaster resistance of that Delta system to ensure that decisions are made based on comprehensive analysis and in a scientifically-defensible manner. Levee failure due to earthquakes, flooding, and climate change (including sea level rise and more frequent and more severe flooding) are all of concern. The long-term health of the Delta area is critical to the Bay Area's water supply, is essential for the San Francisco Bay and estuary's environmental health, provides recreation opportunities for Bay Area residents, and provides the long-term sustainability of Delta communities. While only part of the Delta is within the nine Bay Area counties covered by this multi-jurisdictional LHMP, the Delta is tied to the infrastructure, water supply, and economy of the Bay Area.	Existing Underfunded	PWA (Environmental Services)
Infrastructure: Earthquakes			
INFR-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.	Existing Underfunded	PWA
INFR-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.	Existing Underfunded -- local streets and roads are highest priority.	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-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).	Existing Underfunded	
INFR-b-4	Install specially-engineered pipelines in areas subject to faulting, liquefaction, earthquake-induced landsliding, or other earthquake hazard.	NYC	
INFR-b-5	Replace or retrofit water-retention structures that are determined to be structurally deficient, including levees, dams, reservoirs and tanks.	Not applicable	
INFR-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).	Not applicable	
INFR-b-7	Install earthquake-resistant connections when pipes enter and exit bridges and work with bridge owners to encourage retrofit of these structures.	Existing Underfunded	
INFR-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.	Existing	PWA
INFR-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.	Existing	
INFR-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.	n/a (See San Francisco Bay Area Water Emergency Transportation Authority)	
Infrastructure: Wildfire			
INFR-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.	Existing Underfunded	Oakland Fire Department
INFR-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).	Existing Underfunded	Oakland Fire Department

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-c-3	Develop a defensible space vegetation program that includes the clearing or thinning of (a) non-fire resistive vegetation within 30 feet of access and evacuation roads and routes to critical facilities, or (b) all non-native species (such as eucalyptus and pine, but not necessarily oaks) within 30 feet of access and evacuation roads and routes to critical facilities.	Existing Underfunded	Oakland Fire Department
INFR-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.	Existing	Oakland Fire Department
INFR-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.	Existing (note: requirement for a six foot clearance)	DPNP/Oakland Fire Department
INFR-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.	Existing Underfunded	DPNP/Oakland Fire Department
INFR-c-7	Ensure adequate fire equipment road or fire road access to developed and open space areas.	Existing Underfunded	DPNP/Oakland Fire Department
INFR-c-8	Maintain fire roads and/or public right-of-way roads and keep them passable at all times.	Existing Underfunded	Oakland Fire Department
Infrastructure: Flooding			
INFR-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.	Existing Underfunded	PWA
INFR-d-2	Develop procedures for performing a watershed analysis to examine the impact of development on flooding potential downstream, including communities outside of the jurisdiction of proposed projects.	Existing Underfunded	PWA
INFR-d-3	Conduct a watershed analysis at least once every ten years unless there is a major development in the watershed or a major change in the Land Use Element of the General Plan of the cities or counties within the watershed.	Existing Underfunded	PWA
INFR-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).	Existing Underfunded	PWA

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-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.	Existing Underfunded	PWA
INFR-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.)	Existing Underfunded	PWA
INFR-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.	Existing Underfunded	PWA
INFR-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.	Existing Underfunded	DPNP/PWA
INFR-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.	Existing Underfunded	PWA
INFR-d-10	Use reservoir sediment or reed removal as one way to increase storage for both flood control and water supply.	Not applicable	
INFR-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.	Existing Underfunded	PWA
INFR-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.	Not applicable	
INFR-d-13	Ensure that utility systems in new developments are constructed in ways that reduce or eliminate flood damage.	Existing	PWA
INFR-d-14	Determine whether or not wastewater treatment plants are protected from floods, and if not, investigate the use of flood-control berms to not only protect from stream or river flooding, but also increase plant security.	Not applicable	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-d-15	Work cooperatively with water agencies, flood control districts, Caltrans, and local transportation agencies to determine appropriate performance criteria for watershed analysis.	Existing Underfunded	PWA
INFR-d-16	Work for better cooperation among the patchwork of agencies managing flood control issues.	Existing Underfunded	
INFR-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.	Existing Underfunded	
INFR-d-18	Using criteria developed by EPA for asset management, inventory existing assets, the condition of those assets, and improvements needed to protect and maintain those assets. Capture this information in a Geographic Information System (GIS) and use it to select locations for creek monitoring gauges.	Existing Underfunded	
Infrastructure: Landslides			
INFR-e-1	Include "areas subject to ground failure" in the list of criteria used for determining a replacement schedule (along with importance, age, type of construction material, size, condition, and maintenance or repair history) for pipelines.	Existing	PWA
INFR-e-2	Establish requirements in zoning ordinances to address hillside development constraints in areas of steep slopes that are likely to lead to excessive road maintenance or where roads will be difficult to maintain during winter storms due to landsliding.	Existing	DPNP
Infrastructure: Building Reoccupancy			
INFR-f-1	Ensure that critical buildings owned or leased by special districts or private utility companies participate in a program similar to San Francisco's Building Occupancy Resumption Program (BORP). The BORP program permits owners of buildings to hire qualified engineers to create facility-specific post-disaster inspection plans and allows these engineers to become automatically deputized as City/County inspectors for these buildings in the event of an earthquake or other disaster. This program allows rapid reoccupancy of the buildings. Note - A qualified (deleted structural) engineer is a California licensed engineer with relevant experience.	N/A	
Infrastructure: Public Education			
INFR-g-1	Provide materials to the public related to planning for power outages.	Existing Underfunded	Oakland Fire Department (OES)
INFR-g-2	Provide materials to the public related to family and personal planning for delays due to traffic or road closures, or due to transit system disruption caused by disasters.	Existing Underfunded	Oakland Fire Department (OES)

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
INFR-g-3	Provide materials to the public related to coping with reductions in water supply or contamination of that supply BEYOND regulatory notification requirements.	Not Applicable	
INFR-g-4	Provide materials to the public related to coping with disrupted storm drains, sewage lines, and wastewater treatment (such as materials developed by ABAG's Sewer Smart Program).	Existing Underfunded	PWA
INFR-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.	Existing Underfunded	Oakland Fire Department (OES)
INFR-g-6	Sponsor the formation and training of Community Emergency Response Teams (CERT) for the employees of your agency. [Note – these programs go by a variety of names in various cities and areas.]	Existing Underfunded	Oakland Fire Department (OES)
INFR-g-7	Develop and distribute culturally appropriate materials related to disaster mitigation and preparedness, such as those on the http://www.preparenow.org website related to infrastructure issues.	Existing Underfunded	Oakland Fire Department (OES)
LANDUSE			
Land Use: Earthquake Hazard Studies for New Private Developments			
LAND-a-1	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.)	Existing	
LAND-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.	Existing	
LAND-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.	Existing	
LAND-a-4	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.	NYC	

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
LAND-a-5	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.	NYC	
LAND-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.	Existing	
LAND-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.	Existing	DPNP
LAND-a-8	Require that local government reviews of geologic and engineering studies are conducted by appropriately trained and credentialed personnel.	Existing	DPNP
Land Use: Wildfire and Structural Fires			
LAND-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.	Existing	Oakland Fire Department
LAND-b-2	Develop a clear legislative and regulatory framework at both the state and local levels to manage the wildland-urban-interface consistent with Fire Wise and sustainable community principles.	Existing	Oakland Fire Department
Land Use: Flooding			
LAND-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.	Existing	
LAND-c-2	Incorporate FEMA guidelines and suggested activities into local government plans and procedures for managing flood hazards.	Existing	
LAND-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).	NYC	DPNP
LAND-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 National Flood Insurance Program.	NYC	DPNP

Number	Specific Mitigation Strategy	Oakland Priority	Responsible Agencies
LAND-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.	NYC	DPNP
LAND-c-6	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.	High	DPNP/OES
Land Use: Landslides and Erosion			
LAND-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.	Existing	DPNP
LAND-d-2	Require that local government reviews of these investigations are conducted by appropriately trained and credentialed personnel.	Existing	DPNP
LAND-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.	Existing	DPNP
LAND-d-4	Establish and enforce provisions under the creek protection, storm water management, and discharge control ordinances designed to control erosion and sedimentation.	Existing	DPNP/PWA
LAND-d-5	Establish requirements in zoning ordinances to address hillside development constraints, especially in areas of existing landslides.	Existing	DPNP
Land Use: Hillsides - Multi-hazard			
LAND-e-1	For new development, require a buffer zone between residential properties and landslide or wildfire hazard areas.	NYC	DPNP
LAND-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.	NYC	DPNP
Land Use: Smart Growth to Revitalize Urban Areas and Promote Sustainability			
LAND-f-1	Prioritize retrofit of infrastructure that serves urban areas (or urban services areas) over constructing new infrastructure to serve outlying areas.	Existing	DPNP/PWA
LAND-f-2	Work to retrofit homes in older urban neighborhoods to provide safe housing close to job centers.	Existing Underfunded	DPNP
LAND-f-3	Work to retrofit older downtown areas and redevelopment districts to protect architectural diversity and promote disaster-resistance.	Existing Underfunded	DPNP

Number	Specific Mitigatipn Strategy	Oakland Priority	Responsible Agencies
LAND-f-4	Work with non-profits and through other mechanisms to protect as open space those areas susceptible to extreme hazards (such as through land acquisition, zoning, and designation as priority conservation areas).	Existing Underfunded	OPR/DPNP/PWA
LAND-f-5	Strive to provide and 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 earthquake, accident, 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.	Existing	DPNP
Land Use: Hazard Abatement Districts			
LAND-g-1	Use hazard abatement districts as a funding mechanism to ensure that mitigation strategies are implemented and enforced over time.	Existing Underfunded (see Geologic Hazard Abatement District regulations).	DPNP

Exhibit C - Public Participation

- City of Oakland web site information about LHMP Annex
- Oakland *Tribu*ne notice from 1/15/12

Exhibit D - Oakland City Council Resolution Draft

ATTACHMENT C
TO 6/12/12 CED COMMITTEE AGENDA REPORT

CEQA ADDENDUM FOR CITY OF OAKLAND LOCAL HAZARD MITIGATION PLAN (2010)

CASE FILE NUMBER GP12001

I. INTRODUCTION

This document provides a description of the proposed Oakland Local Hazard Mitigation Plan (LHMP), and evaluates it in accordance with the California Environmental Quality Act (CEQA). Because CEQA applies most directly to a project, for the purposes of this analysis, the Oakland LHMP is the project under CEQA review. When the "project" is referred to in the analysis below, it is the LHMP being referred to, not any individual strategy, policy, action or program of the City's.

PROJECT DESCRIPTION

The following provides a brief description of the project location, objectives and proposed resolution for adoption.

Project Location

The Oakland LHMP applies citywide. Required by State and Federal laws, the LHMP shows that cities are reducing the potential effects from future catastrophic hazards, such as earthquakes, floods or fire.

Project Objectives

The proposed LHMP has three components, per State law[1]:

1. An initial earthquake performance evaluation of public facilities that provide essential services, shelter and critical government functions;
2. An inventory of private facilities that are potentially hazardous, including, but not limited to, multiunit, soft story, concrete tilt-up and concrete frame buildings;
3. A plan to reduce the potential risk from private and governmental facilities in the event of a disaster.

As part of item 3, above, the Oakland LHMP includes 360 policies and actions (which were previously identified by the Association of Bay Area Governments -- ABAG) as those which reduce the potential effects from catastrophic hazards (see Appendix B of the LHMP). The City prioritized these policies and actions, into categories such as "existing" or "existing underfunded."

Proposed Resolution

The *Safety Element* of the Oakland General Plan will be amended to include the actions and policies of the LHMP. When the Oakland City Council takes action on this resolution, a notice of exemption/determination will be filed, per CEQA.

[1] See California Government Code 65302.6

II. CEQA ANALYSIS

The City prepared an Initial Study (dated September 15, 2004), which evaluated the environmental impacts of the *Safety Element* of the General Plan, and the City Council adopted a Negative Declaration and approved the *Safety Element* on November 16, 2004, via Resolution No. 78915 C.M.S. ("2004 ND"). The 2004 ND relied, in part, on the 1998 *Land Use and Transportation Element* EIR and the 2006 *Open Space Conservation and Recreation* Element of the General Plan (OSCAR) Negative Declaration. In addition, the City has prepared and adopted/certified (a) the 2005 *Noise Element* Negative Declaration; and (b) the 2010 *Housing Element* EIR. Collectively these California Environmental Quality Act (CEQA) reviews are known as the "Previous CEQA Documents." No legal actions were filed challenging the Previous CEQA Documents and thus they are presumed valid. In addition, on November 3, 2008, the City Council adopted Standards Conditions of Approval/Uniformly Applied Development Standards, via Ordinance No. 12899.

The present document, as an Addendum (2011 Addendum) to the Previous CEQA documents, demonstrates that no further/additional CEQA review is required to adopt the Oakland Local Hazard Mitigation Plan. None of the circumstances necessitating preparation of additional CEQA review as specified in CEQA and the CEQA Guidelines, including, without limitation, Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163, are present, in that:

(1) there are no substantial changes to the project that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents;

(2) there are no substantial changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; and

(3) there is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them.

A. Comparison of LHMP to *Safety Element* and Previous CEQA Documents.

The City compared the 360 "mitigation strategies" in the LHMP against the *Safety Element*, to determine which strategies had already been addressed (or "cleared") under CEQA—specifically, the 2004 *Safety Element* IS/ND. The comparison revealed:

1. 110 strategies in the LHMP (30% of the total) were specifically identified as actions in the *Safety Element.* The language of some of the strategies in the LHMP were copied verbatim from the *Safety Element;*
2. An additional 38 strategies in the LHMP were referred to in the text of the *Safety Element*, but without a specific policy or action cited;

3. Ten further strategies in the LHMP were not applicable for cities to implement.

4. The remaining 203 strategies in the LHMP (55% of the total) were not referenced in the *Safety Element*.

Of the 203 strategies in the LHMP which were not referenced in the *Safety Element*, 19 strategies in the LHMP were addressed in other Elements of the General Plan, such as the *Historic Preservation* or the *OSCAR* Element.

The City considers the 110 LHMP strategies specifically identified in the *Safety Element*, and the 38 strategies noted in the text of the *Safety Element* to have been addressed ("cleared") under CEQA, specifically the 2004 *Safety Element* IS/ND.

Of the 203 strategies which the *Safety Element* was silent on, 19 are considered close enough in intent to an existing *Safety Element* policy, or other General Plan Element policy to be considered "cleared" under the Previous CEQA documents; likewise, the ten strategies which are not applicable for City's to prioritize. Thus, these 29 polices do not represent a substantial change which would warrant further CEQA review, other than this Addendum.

However, there are still remaining 174 strategies where the *Safety Element* or Previous CEQA documents are silent, and it is possible that, without mitigation, an environmental effect could occur.

A discussion of these 174 strategies follows, below. Each of the potential environmental effects of these strategies are mitigated by the City's Standard Conditions of Approval, (and other CEQA provisions). Since the adoption of the 2004 *Safety Element ND* and the other previous CEQA documents, there have been no substantial changes in the City's policies and efforts to reduce the effects of future catastrophic disasters; neither has there been new information, or a change of circumstances (such as a major disaster) which would invalidate the previous CEQA documents. The City continues to prepare its staff, its residents, and its partner agencies for those disasters, under the jurisdiction of the Office of Emergency Services.

B. Exemptions

The Zoning Administrator independently finds and determines that the LHMP is exempt from CEQA pursuant to CEQA Guidelines Sections: 15060(c)(2); 15061(b)(3) (General Rule); 15304 (Minor Alterations to Land); 15330 (Hazardous Waste or Substances); 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning), each of which constitutes a separate and independent basis for the exemption.

The following is an analysis discussing the reasons why this project is exempt from CEQA, and reasons why any CEQA Guidelines Section 15300.2 exceptions do not apply to the categorical exemptions. The discussion of environmental topics, below, utilizes the City of Oakland's CEQA Thresholds/Criteria of Significance Guidelines and Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, which are applied to projects on a Citywide basis[2].

[2] The recently revised, August 2011 edition of these thresholds were used in performing the CEQA analysis on the LHMP.

1) Section 15060(c)(2) and 15061(b)(3) - General Rule

The proposed LHMP is not subject to CEQA, pursuant to CEQA Guidelines Section 15060(c)(2). This section states:

> (c) Once an application is deemed complete, a lead agency must first determine whether an activity is subject to CEQA before conducting an initial study. An activity is not subject to CEQA if:
>
> (2) The activity will not result in a direct or reasonably foreseeable indirect physical change in the environment;

The LHMP also is exempt pursuant to CEQA Guidelines Section 15061(b)(3). This Section states:

> (b)A project is exempt from CEQA if:
>
> (3) The activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

The LHMP contains 360 policies and actions intended to protect and reduce damages resulting from a major disaster to Oakland residents and visitors, businesses and buildings, and to the natural environment. These policies and actions are operational and procedural, committing different City departments to follow existing laws and best practices—and thus, will not result in a "physical change to the environment."

2) Sections 15304 (Class 4) Minor Alterations to Land and 15330 (Class 30) Hazardous Waste or Substances

In addition, the proposed LHMP qualifies for a Categorical Exemption under CEQA Guidelines Section 15304, Minor Alterations to Land. Section 15304 states:

> Class 4 consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. Examples include, but are not limited to:
>
> (i) Fuel management activities within 30 feet of structures to reduce the volume of flammable vegetation, provided that the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of surface waters. This exemption shall apply to fuel management activities within 100 feet of a structure if the public agency having fire protection responsibility for the area has determined that 100 feet of fuel clearance is required due to extra hazardous fire conditions.

Representative policies and actions in the LHMP which address the minor alteration of land, are INFR-c-3; and INFR-d-9.

Further, the proposed LHMP qualifies for a Categorical Exemption under CEQA Guidelines Section 15330 Minor Actions to Prevent, Minimize, Stabilize, Mitigate or Eliminate the Release or Threat of Release of Hazardous Waste or Substances. Section 15330 states:

> Class 30 consists of any minor cleanup actions taken to prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release of a hazardous waste or substance which are small or medium removal actions costing $1 million or less.

Specific policies and actions in the LHMP which address hazardous waste are: ECON-j-10; ENVI-a-8, 9, 10 and 11; GOVT-d-7; and LAND-f-5.

3) Summary of Categorical Exemptions

As shown in the Determination section below, the LHMP will not result in a direct, or reasonably foreseeable indirect, adverse physical change in the environment, or a significant adverse effect on the environment. The LHMP will also not have a significant adverse impact on natural resources or the environment. The LHMP would minimize the negative impacts of a catastrophic disaster to Oakland's environment, the populations' health, and the economy. Specifically, the LHMP contains more than 300 policies and actions which are intended to protect and reduce damages after a disaster to Oakland residents and visitors, businesses and buildings, and to the natural environment. Staff finds that the proposed LHMP is exempt from CEQA review.

4) Section 15300.2 - Exceptions:

CEQA Guidelines Section 15300.2 lists the following six project types for which Categorical Exemptions may not apply. The following section discusses whether the project would be subject to any of these exceptions. The exceptions from Section 15300.2 are presented in bold, followed by a discussion about how the project is not subject to each exception.

(a) Location. Classes **3, 4, 5, 6,** and **11** are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may, in a particularly sensitive environment, be significant. Therefore, these classes are considered to apply in all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

Exception 15300.2 (a), as described above, only applies to Classes 3, 4, 5, **6**, and 11. This CEQA analysis found that Class 4 exemptions do apply to the LHMP, particularly the example in 15304 (i) (see # 2, above). However, the policies and actions of the LHMP will not impact an environmental resource of hazardous or critical concern.

(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

The proposed LHMP will not have a significant, adverse cumulative impact on the environment. To the contrary, the LHMP will reduce many cumulative impacts that have occurred or would occur after a catastrophic disaster (see strategies such as: GOVT-a-1, "assess vulnerability of critical facilities to damage in natural disasters, and make

recommendations for appropriate mitigation; or INFR-c-7, "maintain fire roads and/or public rights of way roads and keep them passable at all times.")

(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

The proposed LHMP will not have a significant effect on the environment, due to any, or any unusual, circumstances. There have been no unexpected changes in the development pattern (or urbanization) in Oakland, that weren't already studied in the *LUTE* or *Housing Element* EIRs, or the *Safety Element* Negative Declaration; neither have there been any major natural disasters since the 2005 LHMP was previously adopted.

(d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

As shown in the Determination section below, adoption of the proposed LHMP will not have significant adverse effect on resources within scenic highways. Regardless, the City has existing General Plan policies which provide mitigation of visual impacts to scenic highways.[3]

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list complied pursuant to Section 65962.5 of the Government Code.

As shown in the Determination section below, the proposed LHMP would not create a hazard or hazardous material impact. The proposed LHMP contains policies and actions which discourage the use and storage of hazardous materials during construction and operation of buildings (for example, ENVI-a-8: "Explore ways to require that hazardous materials stored in the flood zone be elevated or otherwise protected from flood waters"). In this regard, the LHMP augments the City's existing, complementary actions and policies that encourage clean up and redevelopment of contaminated properties.[4],

(f) Historical Resource. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

As shown in the Determination section below, the proposed LHMP would not result in an adverse impact to a historic resource. To the contrary, the LHMP contains policies which encourage owners of historic properties to undertake seismic upgrades which are intended to protect these resources in case of a disaster, thus preserving the buildings, post-disaster for generations to come. See, for example, HSNG-a-2: "Create incentives for private owners of historic or architecturally significant residential buildings to

[3] See OSCAR Element policies OS-9.1, OS-9.2, OS-9.3, OS-10.1 and Policy OS-10.2; and Policy T6.5 in the Land Use and Transportation Element.

[4] Including Action 3.7.1 in the Housing Element, Action HM-1.6 in the Safety Element, Policy CO-1.2 in the OSCAR Element, and Policy I/C2.1 in the Land Use and Transportation Element (LUTE).

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." In this way, the proposed LHMP cannot be used to encourage demolition of historic buildings.[5]

5) Section 15183 - Projects Consistent with a Community Plan, General Plan, or Zoning:

As a separate and independent basis from the other CEQA findings, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, the City finds and determines that:

a) the project is consistent with the Land Use and Transportation Element (LUTE), for which an EIR was certified in March 1998;

(b) feasible mitigation measures identified in the LUTE EIR were adopted and have been, or will be, undertaken;

(c) the EIR evaluated impacts peculiar to the project and/or project site, as well as off-site and cumulative impacts;

(d) uniformly applied development policies and/or standards (City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval)) have been adopted and found, when applied to future projects, to substantially mitigate impacts. To the extent that no such findings were previously made, the City hereby finds and determines that the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval imposed on the Project substantially mitigate environmental impacts; and

(e) substantial new information does not exist to show that the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval will not substantially mitigate the project and cumulative impacts.

C. CEQA Analysis—Determination {Analysis under Section 15162.3}

The following analysis examines the 174 strategies of the LHMP which were not "cleared" by previous CEQA documents, i.e. the *Safety Element* Negative Declaration, the *Housing Element* EIR and the *LUTE* EIR, using the City's standard CEQA checklist. A large majority of these 174 strategies are administrative, directing, for example, the City to "assist in ensuring adequate hazard disclosure" to the public, or "encourage regulatory agencies to work with safety professionals to develop creative mitigation strategies." In addition, a number of the 174 strategies are not applicable for a City to administer, such as, "assess the vulnerability of critical public education facilities to damage in natural disasters and make recommendations for appropriate mitigation." However, a small selection of the 174 strategies *could* have a CEQA impact, and those are noted below, in each section of the analysis.

The following statement is applicable to each of the CEQA categories in the Checklist:

Adoption of the LHMP, as a planning document which catalogues the priorities of the City for reducing damages from future disasters, and provides a framework for disaster related funding, would not have any environmental impact. Adoption of the LHMP alone would not increase the

5 Regardless, any future construction projects in the City will be required to comply with the use of the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval related to demolition, grading and site disturbance in order minimize adverse effects on these resources

potential for environmental impacts, as it does not require any new construction. Considering any *hypothetical* construction which might result from adoption of the LHMP, such as the future renovation of a fire station: the City finds that such buildings are neither more, nor less, likely to create an environmental impact-- *due to the LHMP* –and, regardless, would be evaluated under CEQA at the time of the City's routine planning and building permit processes, including, but not limited to application of the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval.

AESTHETICS

Scenic Vistas, Scenic Highways, Visual Character

Adoption of the LHMP, as a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding, would not have an impact on public scenic vistas, scenic highways or visual character. The City's existing policies in the General Plan encourage preservation of views and visual character.[6] Adoption of the LHMP would not increase the potential for impacts. Any potential construction which results from adoption of the LHMP (such as the renovation of a fire station) is neither more, nor less, likely, due to the LHMP, and would be evaluated under CEQA at the time of entitlement. Therefore, impacts to scenic vistas, highways and visual character associated with the LHMP would be less than significant.

Potential Glare or Shadows

Adoption of the LHMP, as a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding, would not cause a new source of substantial light or glare, which would substantially and adversely affect day or nighttime views in the area. In addition, the LHMP alone would not cause an increase in bird strikes due to a potential increase in daylighting. Nor would the LHMP introduce landscape that would cast shadows on existing solar collectors, or cast shadows that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors. In addition, the adoption of the LHMP will not cast a shadow on any public park, lawn, garden, or a historic resource. Any potential construction which results from adoption of the LHMP (such as the renovation of a fire station) is neither more, nor less, likely to create glare or cast a shadow, due to the LHMP, and would be evaluated under CEQA at the time of entitlement. Thus, this impact is less than significant. The issue of bird strikes is discussed further in the biological section below.

Conflicts with General Plan, Planning Code, UBC

The Proposed LHMP will not conflict with applicable provisions related to adequate light. While no future construction or development projects are specifically called for in the LHMP, should such a project be proposed, it wili need to comply with the Zoning Ordinance and City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, including regulations and requirements related to the Building Code which address adequate light. Thus, there is no impact.

Wind

Adoption of the LHMP will not create winds exceeding 36 mph. While it is possible that future construction might generate a wind impact, this impact is associated with any potential new construction in the City, and would be neither more likely, nor less likely, due to the LHMP. Any

6 See OSCAR Element Policies, OS-9.1, OS-9.2, OS-9.3, OS-10.1 and OS-10.2; also OS-1.3 and Objective OS-9. See also the Land Use and Transportation Element, Policy W3.4.

future construction which might result from the LHMP would undergo project-specific CEQA review. The wind impacts associated with the LHMP would be less than significant.

AGRICULTURE AND FOREST RESOURCES

The LHMP will not affect agricultural land or use. The City of Oakland is an urban community, without any substanfial agricultural land or uses, nor any Williamson Act contracts. The City of Oakland General Plan does not contain areas zoned for exclusively for agriculture use. Furthermore, because the LHMP is a policy document about hazards preparedness, it will not require construcfion of buildings which conflict with zoning for, or causes the rezoning of, forestland, timberland, or Timberland Production lands. . Thus, there is no Agriculture or Forest Resources impact.

AIR QUALITY

The City's CEQA Thresholds/Criteria of Significance Guidelines (August 25, 2011) outline Air Quality impacts in three categories, project-level, plan-level and cumulative impacts. The draft LHMP, as a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding, does not directly encourage or induce new construction, so there can not be any project-level impacts associated with adoption of the LHMP.[7] Similarly, there are not any project-level cumulative impacts, because no air quality impacts associated with the proposed LHMP have been identified as significant or potentially significant.

Plan-level Air Quality impacts are an appropriate measure for the LHMP, as it serves as a planning document for the City to reduce damages from future disaster, and provides a framework for disaster-related funding. The City's CEQA thresholds require that a proposed plan be analyzed against the Bay Area 2010 Clean Air Plan (CAP). Generally, the CAP contains 55 control measures to improve air quality, and the CAP was reviewed to determine if the draft LHMP would be in conflict, or inconsistent, with those measures -- the LHMP, if adopted, will not conflict with the 2010 Clean Air Plan. Specifically, the LHMP will not increase vehicle miles traveled, as no provisions in the LHMP require or induce new construction of buildings which would house residents or employees, or otherwise generate vehicle trips.

However, following the City's CEQA thresholds, the LHMP will not demonstrate "reasonable efforts to implement control measures contained in the CAP," as the LHMP does not require or induce any construction which could require such air quality control measures. Nor will the LHMP "include special overlay zones...to minimize potential Toxic Air Contaminants;" neither will the LHMP 'identify existing and planned sources of odors". These plan-level CEQA thresholds are simply not applicable to the LHMP, which doesn't require or induce any construction.

Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements related to air quality in the City's General Plan[8] and with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval related to dust control and airborne asbestos, which reduce potential impacts to a less than significant level.

[7] See City of Oakland CEQA thresholds Air Quality Project Level impacts 1-5, which address emissions from and exposures to, specific pollutants, toxic air contaminants or odors.

Therefore, there are no significant Air Quality impacts which would result from adopting the LHMP.

BIOLOGICAL RESOURCES

Habitat Modifications, Special Status species, Riparian Habitat or Other Sensitive Natural Communities, Wetlands

Adoption of the LHMP generally would not create habitat modifications, effect special status species, effect riparian habitat or other sensitive natural communities, nor wetlands. Continuing with the programs outlined in the LHMP would likely *reduce* the potential for any such significant impacts to Biological Resources to occur, as several existing City programs protect such resources by calling for the removal of non-native or invasive species, other obstructions (see ENVI a-12 and 13). The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements related to biological resources in the City's General Plan[9] and with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval related to biological resources, which reduce potential impacts to a less than significant level.

Fish and Wildlife species, Migratory Corridors or native wildlife nurseries

Adoption of the LHMP would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters aiid provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to encourage the protecfion of fish, wildlife and native species in the City's General Plan[10] and with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval related to biological resources, which reduce potential impacts to a less than significant level.

Habitat Plans
The City of Oakland does not have a habitat or conservation plan. Thus, the proposed LHMP would not conflict with any plan and there is no potential for an impact.

Trees and Creeks
The LHMP would not fundamentally conflict with Oakland's Tree Preservation Ordinance or Creek Protection Ordinance. An existing, but underfunded, policy of the LHMP calls for the City to "Maintain healthy urban forests; promote tree planting to increase shading and to

[9] See, for example, Action GE2.2 in the Safety Element (require continued enforcement of the grading, erosion, and sedimentation ordinance), and in the OSCAR Element, Objectives CO-1, CO-7, CO-8 and CO-9; Policies CO-1.1, CO-2.4, CO-7.1, CO-7.2, CO-9.1 and OS-1.3.

[10] See, for example, in the Safety Element: Actions FL-1.3 and FL 1.5 (stormwater and creek protection), GE 2.2 and GE 2.3 (require continued enforcement of the grading, erosion, and sedimentation ordinance); , in the OSCAR Element: Objectives CO-7, CO-8, CO-9 and CO-11; Policies , CO-7.1, CO-7.2, CO-9.1, and CO 11.1, 11.2,

absorb CO2."[11] The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with exisfing policies and requirements to encourage the protection of trees and creeks in the City's General Plan[12] and with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval related to tree preservation and removal and construction near creeks which reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

CULTURAL AND HISTORIC RESOURCES

Historic Resources

The proposed LHMP would not cause a substantial adverse change in the significance of a historic resource as defined in CEQA Guidelines section 15064.5. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to encourage the protection of historic resources in the City's General Plan[13] and with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval related to cultural and historic resources, would reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

Paleontological and Archeological Resources, and Human Remains

Adoption of the LHMP would not directly or indirectly destroy a unique paleontological or archeological resource or disturb any human remains. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to encourage the protection of paleontological and archeological resources in the City's General Plan (such as Historic Preservation Element Objective 4, "Archeological Resources") and with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, related to paleontological and archeological resources, would reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

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[11] See LHMP, policy Environment-b-12.

[12] See, for example, in the Safety Element: Actions GE 2.3 (require continued enforcement of the creek protection ordinance) and GE 2.6 (fire prevention vegetation management techniques for creek-sides); the OSCAR Element: Objectives CO-6 (Surface Waters protection); CO-7 (Protection of Native Plant communities); CO-8 (Wetlands); CO-9 (Rare, Endangered and Threatened Species); CO-10, (Vegetation management); and CO-11 (Wildlife).

[13] See, for example, in the Safety Element: Action GE 3.2 (require continued enforcement of the unreinforced masonry ordinance); the Housing Element, Goal 2, Objective 2-3, Policies 2.1, 3.1, 3.5, 3.7, 3.12, and 4.4 in the Historic Preservation Element; Policies I/C2.2, D6.2, N3.6, and N9.9 in the Land Use and Transportation Element; and Action JL-4.1 and Policy JL6 in the Estuary Policy Plan.

GEOLOGY AND SOILS

Seismic Activity and Ground Failure

The City is located in a seismically active region, and the principal faults in the vicinity include the Hayward Fault, San Andreas Fault, and the Calaveras Fault. Adoption of the LHMP is expressly intended to ensure policies and actions by the City that will reduce the effects of seismic-related ground failure, including liquefacfion, lateral spreading, subsidence, collapse or landslides to the structures and to the people of Oakland. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to encourage the protection from seismic activity in the City's General Plan[14] with the City's Conditions of Approval & Uniformly Applied Development

Standards imposed as Standard Conditions of Approval, related to seismic hazards, would reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant. The new California Building Code addresses these seismic issues in the Efficient Framing Section of Title 24. Furthermore, the City maintains a Geological Hazards Abatement District, whose purpose is to raise funds to make public works improvements to prevent damage from seismic events. Although the potential for injury or damage from catastrophic earthquakes cannot be eliminated, this impact is associated with any potential construction and neither would be more likely, nor less likely, due to the adoption of the LHMP.

Soil Erosion and Loss of Topsoil

Adopting the LHMP would not result in substantial soil erosion or the loss of topsoil, creating substantial risks to life, property, or creek/waterways. One policy in the LHMP not addressed in the Previous CEQA documents is:

- "Increase efforts to reduce landslides and erosion in existing and future private development through continuing educafion of design professionals on mitigation strategies."[15]

The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to prevent soil erosion and loss of topsoil in the City's General Plan (specifically, Safety Element Action GE 2.2) with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, related to soil erosion, would reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

[14] See the Safety Element, Geologic Hazards chapter and policies; as well as OSCAR Element regarding land stability including Objective CO-2 and Policy CO-2.1.

[15] See LHMP policy Economy-g-2, ranked by the City as Existing, but Underfunded.

Expansive Soils
The LHMP, were it to be adopted, does not specify building site location or selection on expansive soils. Potential impacts are associated with any potential construction and neither would be more likely, nor less likely, due to the LHMP. The LHMP is a planning document which catalogues the priorities of the Cify for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to encourage the protection from expansive soils in the City's General Plan (specifically, the OSCAR Element, Action CO 1.1.3) with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, related to expansive soils, would reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

Wells, Pits, Swamp, etc
The LHMP does not specify a building site location or avoidance of a well, pit, swamp, mound, tank vault, or unmarked sewer line. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to avoid wells, pits, etc., in the City's General Plan with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, related to underground structures would reduce potential impacts to a less than significant level. t In addition, any individual project would need to submit a Phase i Site Assessment Report. The report would identify if any of these features were located on the site and what the recommendations would be address them. The LHMP will not resuh in a significant impact.

Landfills or Fill Soils
The LHMP does not specify a building site location, or avoidance of a landfill or unknown fill soils. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to encourage the protection from building on a landfill or on fill soils in the City's General Plan, with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, related to landfills or fills soils, would reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant. The individual project would need to submit a Phase I Site Assessment Report. The report would identify if any of these features were located on the site and what the recommendations would be address them. The LHMP will not result in a significant impact.

Soils Incapable of Supporting Septic Tanks or Alternative Wastewater Systems
The LHMP does not specify a building site location, nor does it specifically avoid soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. In addition, the City of Oakland Municipal Code prohibits construction of septic tanks or systems that are not connected to the wastewater disposal systems. The LHMP will not result in a significant impact.

GREENHOUSE GAS EMISSIONS / GLOBAL CLIMATE CHANGE

Adoption of the LHMP as a plan would not induce the construction of any particular building or project, and so no project-level greenhouse gas emissions can be expected, either directly, or

indirectly. No policy or action in the LHMP would cause the construction of a stationary source of greenhouse gas emissions. There are two GHG-related policies in the LHMP not addressed in the Previous CEQA documents:

- "Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO2."[16]
- "Inventory global warming emissions in your own local government's operations and in the community, set reduction targets and create an action plan."[17]

The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a tire station) would be required to comply with existing policies and requirements to reduce greenhouse gas emissions which are in the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval. These conditions, those related to reducing greenhouse gas emissions, would reduce potential impacts of any potential building to a less than significant level (i.e., less than 1,100 metric tons of CO2e, annually and more than 4.6 metric tons of CO2e per service population, annually). Therefore, the impacts of the LHMP will not be significant.

PLAN-LEVEL IMPACTS

The LHMP as a plan, considers the effects of global climate change as it relates to potential environmental hazards, and contains 13 actions to help Oakland to reduce greenhouse gas emissions, and thus, reduce the threat of hazards from climate change. For example, the action, "Inventory global warming emissions in your own local government's operations and in the community, set reduction targets and create an action plan" (ENVl-b-2) has already begun with the City's Energy and Climate Action Plan.

Produce emissions of more than 6.6 metric tons of CO2e per service population annually.

Adoption of the LHMP as a plan would not induce the construction of any particular building, and so, could not be expected to produce any greenhouse gas emissions, or contribute to global climate change. The LHMP is a planning document which catalogues the priorities of the City for reducing

damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a tire station) would be required to comply with existing policies and requirements to reduce greenhouse gas emissions which are in the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval. These conditions, those related to reducing greenhouse gas emissions, would reduce potential impacts of any potential building to a less than significant level (i.e., less than 6.6 metric tons of CO2e per service population, annually). Therefore, the impacts of the LHMP will not be significant.

Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.

The City's CEQA thresholds require that a proposed plan be analyzed against the Bay Area 2010 Clean Air Plan (CAP). Generally, the CAP contains 55 control measures to improve air quality, and the CAP was reviewed to determine if the draft LHMP would be in conflict, or inconsistent,

[16] See LHMP, policy Environment-b-12; ranked by the City as Existing, but Underfunded.

[17] See LHMP, policy Environment-b-2, ranked by the City as Existing, but Underfunded.

with those measures -- the LHMP, if adopted, will not conflict with the 2010 Clean Air Plan. As stated above the LHMP seeks to reduce emissions from greenhouse gases with its policies and actions, and no individual project or building which could further cause emissions of greenhouse gasses beyond the City's CEQA thresholds is called for in the Plan. Therefore, the LHMP does not conflict with an applicable plan, policy or regulation for reducing greenhouse gas emissions, and there is no impact.

HAZARDS AND HAZARDOUS MATERIALS

The City's *Safety Element* directly addresses the CEQA thresholds for Hazards and Hazardous Materials. Specifically, Chapters 4 and 5 contain the City's programs and policies to prevent fire hazards, and the release of hazardous materials. In addifion, there are two policies in the LHMP which are not addressed in the *Safety Element* which are subject to this CEQA analysis:

- 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.[18]
- Explore ways to require that hazardous materials stored in the flood zone be elevated or otherwise protected from flood waters.[19]

Transport and Disposal, Emissions and Storage of Hazardous Materials
Adoption of the LHMP would not create a significant hazard to the public or the environment, through the routine transport, use, or disposal of hazardous materials. Nor would its adoption create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment or emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The LHMP would not induce the storage or use of acutely hazardous materials near sensitive receptors.

The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to discourage the transport and disposal of hazardous materials --in the City's General Plan; with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, related to transport and disposal of hazardous materials, would reduce potential impacts to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

Be located on a site which is included on the "Cortese List" of hazardous materials sites.
Adopting the LHMP would not *require* the development of any new structures on any sites, nor on sites which are on the "Cortese List." The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to continue the environmental remediation of contaminated sites on the "Cortese List" -- in the City's General Plan; with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, reducing potential impacts from adopfing the LHMP to a less than significant level. The extent to which impacts of specific

[18] See LHMP, strategy Economy-j-10.

[19] See LHMP, strategy Environment-a-8.

future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

Result in less than two emergency access routes for streets exceeding 600 feet in length.
Adopting the LHMP would not *require* the development of any new structures on any sites, nor on sites where the design blocks emergency access routes on streets longer than 600 feet.

Location within an Airport Landuse Plan, or near a private Airstrip
Adopting the LHMP would not *require* the development of any new structures on any sites, nor on sites which are within the Oakland Airport landuse plan. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovafion of a fire station) would be required to comply with existing policies and requirements about siting new structures with an airport's land use plan, also, with the City's General Plan; with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, potential impacts from adopting the LHMP will be reduced to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

Evacuation Plan
The LHMP would not fundamentally impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Although, it is possible that the potential construction of buildings under the LHMP could result in this impact, this impact is associated with any potential construction and neither would be more likely, nor less likely, due to the adoption of the LHMP.. The extent to which an impact on a hypothetical site's evacuation plan is too speculative currently lo be evaluated. The LHMP will not result in a significant impact.

Wildland Fires
Adopting the LHMP would not *require* the development of any new structures on any sites, nor on sites which are subject to the potential of wildland fires. The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements about sifing new structures in areas threatened by wildland fires, also, with the City's General Plan[20]; along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, potential impacts from adopting the LHMP will be reduced to a less than significant level. The extent to which impacts of specific future development could occur is too speculative currently to be evaluated, but the impacts of the LHMP will not be significant.

HYDROLOGY AND WATER QUALITY

Chapter 6 of the Oakland Safety Element identifies policies and actions which codify the City's commitment to reducing hazards from fiooding, and to protect water quality. However, several policies in the LHMP are not addressed in the Safety Element, nor in previous CEQA documents:

[20] As noted, see Safety Element Policy FI-3 "Prioritize the reduction of wildfire hazard, with an emphasis on prevention." And also, see the OSCAR Element, Objective CO 10: "Manage vegetation so that risks of catastrophic wildfire is minimized."

- Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production.[21]
- Coordinate with other critical infrastructure facilities to establish plans for delivery of water and wastewater treatment chemicals.[22]

The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might conceivably result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements for hydrology and water quality; also, with the City's General Plan[23] and with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval; potential hydrology and water quality impacts from adopting the LHMP will be reduced to a less than significant level. Details about the individual CEQA thresholds are below.

Water Quality Standards or waste discharge requirements; Groundwater Depletion and Recharge
The LHMP would not violate any water quality standards or waste discharge requirements, because it does not require the construction of any new buildings. Likewise, the adoption of the LHMP would not substantially degrade water quality, nor would it deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume, or a lowering of the local groundwater table level to violate any water quality standards or waste discharge requirements. Furthermore, the City has existing policies related to water quality.[24] Potential impacts are associated with any potential construction and are equally or less likely, due to the adoption of the LHMP. The extent to which impacts of specific development could occur is too speculative currently to be evaluated. The LHMP will not result in a significant impact.

Erosion, siltation or flooding; 100-year flood hazard areas
Because LHMP will not require the construction of any buildings or structures, its adoption will not have an impact altering the existing drainage pattern of a site or area—either through the alteration of the course, or increasing the rate or amount of flow—of a creek, river or stream, in a manner that would result in substantial erosion, siltation, or flooding. While the City of Oakland does have 600 and 1,900 acres mapped as 100-year and 500 year flood hazard areas (respectively), the LHMP would not result in any *housing* being built within those floodplains, nor would it place any structures within a 100-year flood hazard area which would impede or redirect flood flows. There is no "site" effected by the LHMP. In addition, any construction which might conceivably resuh from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements for reducing risks of erosion, siltation, or flooding, as well as with the City's General Plan;[25] along with the City's Condifions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, potential erosion, silting or flooding impacts from adopting the LHMP will be reduced to a less than significant level.

Substantial Runoffi Stormwater Drainage Systems and additional source of pollution
The LHMP would not create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems. Nor will adoption of the LHMP create any

[21] See LHMP, EnVironment-b-10.

[22] See LHMP, Infrastructure-a-19.

[23] As noted, see Safety Element Policy Fi-3 "Prioritize the reduction of wildfire hazard, with an emphasis on prevention." And also, see the OSCAR Element, Objective CO 10: "Manage vegetation so that risks of catastrophic wildfire is minimized."

[24] See Safety Element: Action GE2.2, GE2.3, FL-1.4; and the OSCAR Element: Objectives CO-5, CO-6, Policies CO-5.2, CO-5.3, CO-5.3.1, CO-5.4.2 and Action CO-5.1.2.

[25] See, as noted, Chapter 6 of the Oakland Safety Element.

additional source of runoff or pollution. Any construction which might conceivably resuh from the LHMP (such as the renovation of a tire station) would be required to comply with existing policies and requirements for preventing runoff, as well as with the City's General Plan;[26] along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, potential stormwater drainage impacts from adopting the LHMP will be reduced to a less than significant level.

Inundation by Seiche, Tsunami, or Mudflow
Because the LHMP does not require any construction, adoption of it would not expose people or structures to substantial risk of loss, injury or death as a result of inundation by seiche, tsunami, or mudflow. The likelihood of flooding from tsunamis, seiches, or mudflows in Oakland is negligible due to geography of the City, where the island of Alameda and the Port of Oakland both act as buffers from the Bay so the likelihood of large scale devastation from seiche, tsunami, or mudflow is not significant. The LHMP would not have a significant impact.

Drainage patterns and Creek Protection Ordinance
As noted above, the Local Hazard Mitigation Plan would not fundamentally conflict with Oakland's Creek Protection Ordinance. Because adoption of the LHMP does not require any construction, the drainage patterns to Oakland creeks will not be impacted. Any construction which might conceivably result from the LHMP (such as the renovation of a tire station) would be required to comply with existing policies and requirements for preventing runoff, as well as with the City's General Plan;[27] along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, potential drainage pattern impacts from adopting the LHMP will be reduced to a less than significant level.

LAND USE AND PLANNING

Divide an Existing Community, conflict with a Land Use Plan, Policy or Regulation.
Any construction which might conceivably resuh from the adoption of the LHMP would not be expected to physically divide an existing community; for example, a new fire station would likely be integrated into its host neighborhood, not divide it. Further, the Oakland General Plan, particularly the Safety Element, are considered fundamental parts of the Local Hazard Mitigation Plan. The Land Use and Transportation Element of the General Plan was reviewed during the preparation of this CEQA analysis for any conflicts or inconsistencies with the policies and actions of the LHMP and none were found. Further, as the LHMP does not require any construction, its adoption will not create an impact which conflicts with the regulation of an agency with jurisdiction over the project.

Any construction which does result from the LHMP, furthermore, would have to follow the City's General Plan; along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval, so that potential impacts of dividing an existing community will be reduced to a less than significant level.

Conflict with a habitat conservation plan or natural community conservation plan
Oakland does not have either habitat conservation plans, or natural community conservation plans, so adoption of the LHMP would not have an impact on such plans.

[26] See, as noted, Chapter 6 of the Oakland Safety Element, specifically Action FL-1.2; also see Action GE 2.5

[27] See, as noted, Chapter 6 of the Oakland Safety Element, specifically Actions FL-1.3 and 1.5; also see Action GE 2.3

MINERAL RESOURCES

There are no mineral resources in Oakland for the LHMP to conflict with, so there would be no impact on mineral resources if the LHMP is adopted.

NOISE

The LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and provides a framework for disaster related funding. Any construction which might potentially result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to reduce noise impacts; also, to comply with the Noise Element of the Oakland General Plan, along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval. With the application of these policies and standards, potential noise impacts from adopting the LHMP will be reduced to a less than significant level.

Specifically, adopting the LHMP would not:

- *Violate the Oakland Noise Ordinance and the Oakland Nuisance Ordinance regarding Construction Noise;*
- *Violate the Oakland Noise Ordinance regarding Operational Noise;*
- *Increase Ambient Noise;*
- *Expose persons to Interior Noise;*
- *Increase community noise;*
- *Generate noise in excess of regulatory standards (i.e. OSHA)*
- *Generate groundborne vibration in excess of FTA regulations;*
- *Be located within an Airport Land use Plan, or the vicinity of a Private Airstrip.*

POPULATION AND HOUSING

The LHMP, as a planning document which catalogues the priorities of the City for reducing damages from future disasters and which provides a framework for disaster related funding, would not induce, or create, any new housing or residenfial development in Oakland, so there could be no new population impacts from its adoption.

Specifically, the LHMP would not induce substantial population growth in a manner not contemplated in the Housing Element of the General Plan, either directly, or indirectly, as it requires no construction of new housing. Similarly, the LHMP would not displace substantial numbers of existing housing units, nor displace substantial numbers of people, because no housing is required to be built under the LHMP.

It is noted that a major earthquake or wildfire in Oakland, one which is *not* prepared for, and somewhat mitigated in advance by adopting the policies and actions of the Local Hazard Mitigation Plan, would have far more impact on the population of Oakland, and the displacement of its residents, than the *adoption* of the LHMP itself

PUBLIC SERVICES

Many of the strategies in LHMP are rated by the City as existing programs, and many are existing programs which are currently underfunded, so adoption of the LHMP would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, nor result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for the fire and , police departments, schools and/or other public services.

The LHMP does contain certain strategies which could have an impact on public services, such as:

- Retrofit or replace critical facilities that are shown to be vulnerable to damage in natural disasters.[28]
- Develop unused or new pedestrian rights-of-way as walkways to serve as additional evacuation routes (such as fire roads in park lands).[29]
- As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems.[30]

However, none of these strategies, were they to be fully implemented and funded by the City, would have a significant impact on the environment, because: they replace existing facilifies (not expand them); they continue an existing, if underfunded, practice.

RECREATION

The LHMP, as a planning document which catalogues the priorifies of the City for reducing damages from future disasters and which provides a framework for disaster related funding, would not induce, or create, any new housing or residential development in Oakland, so there could be no new recreation impacts from its adoption. Specifically, there would not be any more, or less, use of existing neighborhood or regional parks that would cause the deterioration of the facility; nor would there be any new construction or expansion of recreational facilities as a result of adopting the LHMP.

TRANSPORTATION/TRAFFIC

Project Impacts-- Traffic Load and Capacity

The LHMP, as a planning document which catalogues the priorifies of the City for reducing damages from future disasters and which provides a framework for disaster related funding, would not induce, or create, any new development in Oakland, so there could be no new transportation or traffic impacts from its adoption. Specifically, there are no study intersections, because the project would not generate any traffic trips, reduce lanes or otherwise affect traffic congestion, flow, etc. ; Similarly, there is no impact to either the Congestion Management Program network, or the Metropolitan Transportation System. Because adoption of the LHMP would not induce any new population or new residents, AC Transit buses would not have increased travel times.

[28] See LHMP, strategy Government-a-2.

[29] See LHMP, strategy Infrastructure-a-10.

[30] See LHMP, strategy Infrastructure-a-21.

Any construction which might potentially result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to reduce transportation and traffic impacts. Additionally, any new construction would have to comply with the Land Use and Transportation Element of the Oakland General Plan, along with the City's Condifions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval. With the application of these policies and standards, potential transportation and traffic impacts from adopting the LHMP will be reduced to a less than significant level.

Project Impacts-- Traffic Safety Thresholds

As noted above, the LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and which provides a framework for disaster related funding. The LHMP would not induce, or create, any new development in Oakland, so there could be no new traffic safety impacts from its adoption. Specifically, because there is no project, there are no resulting transportation hazards; likewise, there are no reductions in pedestrian, bicyclist or bus-rider safety; nor is there a conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, which were reviewed as part of this CEQA analysis. The potential hazard of vehicle queuing at at-grade railroad crossings would not be an impact, because adoption of the LHMP would not induce any new population or new residents. There would be no development to change air traffic patterns.

Any construction which might potentially result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to reduce transportation and traffic impacts, including temporary effects on circulafion due to construction. Addifionally, any new construction would have to comply with the Land Use and Transportation Element of the Oakland General Plan, along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval. With the application of these policies and standards, potential transportation and traffic impacts from adopting the LHMP will be reduced to a less than significant level.

Cumulative Impacts

As noted above, the LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and which provides a framework for disaster related funding. The LHMP would not induce, or create, any new development in Oakland, so there could be no new cumulative transportation or traffic impacts from its adoption—that is, there is no development to cause future traffic congestion or limit traffic safety on Oakland roadways.

Planning-related non-CEQA issues

The secfion of the City's CEQA Thresholds of Significance Guidelines outlines several additional issues, such as parking, that are commonly addressed in a CEQA analysis. These additional criteria, however, are not being addressed in this CEQA analysis, because the LHMP is a planning document which does not create new development for which there would be parking, or transit-ridership impacts.

UTILITIES AND SERVICE SYSTEMS

Wastewater Treatment/Capacity, Stormwater and Water Supply

The LHMP, as a planning document which catalogues the priorities of the City for reducing damages from future disasters and which provides a framework for disaster related funding, would not induce, or create, any new development in Oakland, so there could be no utilities and service systems impacts from its adoption. Specitically, without new development, there could be no significant impacts on wastewater treatment and capacity for the East Bay Municipal Utilities District (EBMUD); no requirements for new or expanded stormwater facilities; no cause for an excessive demand on water supply from EBMUD.

Any construction which might potentially result from the LHMP (such as the renovation of a fire station) would be required to comply with existing policies and requirements to reduce utilities and services systems impacts. Additionally, any new construction would have to comply with the Land Use and Transportation Element of the Oakland General Plan, along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval. With the application of these policies and standards, potential utilities and service system impacts from adopting the LHMP will be reduced to a less than significant level.

Landfill Capacity and Solid Waste

As noted above, the LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and which provides a framework for disaster related funding, would not induce, or create, any new development in Oakland, so there could be ho utilities and service systems impacts from its adoption. Specitically, without new development, there could be no significant impacts on landtill capacity and no violations of regulations for solid waste.

Any construction which might potentially result from the LHMP (such as the renovation of a tire station) would be required to comply with existing policies and requirements to reduce utilities and services systems impacts. Additionally, any new construction would have to comply with the Land Use and Transportation Element of the Oakland General Plan, along with the City's Conditions of Approval & Uniformly Applied Development Standards imposed as Standard Conditions of Approval. With the application of these policies and standards, potential utilities and service system impacts from adopting the LHMP will be reduced to a less than significant level.

Energy Standards and Energy Provider Capacity

Additionally, as noted above, the LHMP is a planning document which catalogues the priorities of the City for reducing damages from future disasters and which provides a framework for disaster related funding, would not induce, or create, any new development in Oakland, so there could be no utilities and service systems impacts from its adoption. Specitically, without new development, there could be no violations of regulations for energy standards or conservation, nor would there be an additional load which would reduce energy provider capacity (such as for PG&E).

D. Summary

Adoption of the Local Hazard Mitigation Plan ("project") will not have a signiticant impact on the environment. For the reasons stated above, the City tinds and determines that the project is exempt from CEQA, pursuant to CEQA Guidelines Sections 15060(c)(2), 15061(b)(3) (General Rule), 15304 (Minor Alterations to Land), and 15330 (Hazardous Waste or Substances), each of which constitutes a separate and independent basis for the exemption, and there are no exceptions that would defeat the use of any categorical exemptions. As a further separate and independent basis, the project is exempt from CEQA pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan, or Zoning).

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APPROVED AS TO FORM AND LEGALITY

City Attorney

FILED
OFFICE OF THE CITY CLERK
OAKLAND
2012 MAY 30 AM 10:43

OAKLAND CITY COUNCIL

RESOLUTION NO._____C.M.S.

Introduced by Councilmember _____

RESOLUTION AMENDING THE SAFETY ELEMENT OF THE OAKLAND GENERAL PLAN TO INCORPORATE THE OAKLAND LOCAL HAZARD MITIGATION PLAN AS AN IMPLEMENTATION ANNEX

WHEREAS, the City of Oakland prepares for disasters with the understanding that disasters do not recognize city, county, or special district boundaries; and

WHEREAS, the City of Oakland seeks to maintain and enhance both a disaster-resistant city 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 Bay Area is subject to various earthquake-related hazards, such as ground shaking, fiquefaction, landshding, 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 Oakland 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 Oakland 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 the Federal Emergency Management Agency (FEMA); and

WHEREAS, the Association of Bay Area Govemments (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; and

WHEREAS, Oakland's Local Hazard Mitigation Plan, augmented by ABAG's regionally developed strategies, and including Oakland-specific maps and analysis, has been incorporated as a City of Oakland Annex into ABAG's multijurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area; and

WHEREAS, the *Safety Element* of the City of Oakland s General Plan, known as "Protect Oakland," was adopted by Council Resolution No. 78915 C.M.S. on November 16, 2004, and was intended to serve as the foundation for Oakland's Local Hazard Mitigation Plans; and

WHEREAS, On March 20, 2012, the City Council adopted the ABAG report, *Taming Natural Disasters,* as the Oakland Local Hazard Mitigation Plan; and

WHEREAS, Califomia State law requires that the City of Oakland take a further action, and adopt a General Plan Amendment to make the Oakland Local Hazard Mitigation Plan an "implementation appendix" to the *Safety Element* of the Oakland General Plan, and, that the timing of the March 20, 2102 Council hearing date did not allow the City sufficient time to meet established General Plan Amendment noticing requirements; and

WHEREAS, on May 2, 2012, the Planning Commission held a publically noticed hearing to consider an amendment to the *Safety Element* of the Oakland General Plan to include the Local Hazard Mitigation Plan, , and recommended that action for adoption by City Council; and

WHEREAS, this resolution will adopt a General Plan Amendment, per State law, which amends the *Safety Element* of the Oakland General Plan so that it will incorporate the Oakland Local Hazard Mitigation Plan as Appendix F of the *Safety Element* (incorporated by reference as Exhibit A to this resolution); and

WHEREAS, The City prepared an Initial Study (dated September 15, 2004), which evaluated the environmental impacts of the *Safety Element* of the General Plan, and the City Council adopted a Negative Declaration and approved the *Safety Element* on November 16, 2004, via Resolution No. 78915 C.M.S. ("2004 ND"). The 2004 ND relied, in part, on the 1998 *Land Use and Transportation Element* EIR and the 2006 *Open Space Conservation and Recreation Element* of the General Plan (OSCAR) Negative Declaration. In addition, the City has prepared and adopted/certified (a) the 2005 *Noise Element* Negative Declaration; and (b) the 2010 *Housing* Element EIR. Collectively these Califomia Environmental Quality Act (CEQA) reviews are known as the "Previous CEQA Documents." No legal actions were filed challenging the Previous CEQA Documents and thus they are presumed valid. In addition, on November 3, 2008, the City Council adopted Standards Conditions of Approval/Uniformly Applied Development Standards, via Ordinance No. 12899; and

WHEREAS, the City prepared an Addendum to the foregoing CEQA documents to evaluate the potential impacts of the Oakland Local Hazard Mitigation Plan; and

WHEREAS, the Addendum demonstrates that no further/additional CEQA review is required to adopt the Oakland Local Hazard Mitigation Plan; specifically, none of the circumstances necessitating preparation of additional CEQA review as specified in CEQA and the CEQA Guidelines, including, without limitation, Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 and 15163, are present, in that: (1) there are no substantial changes to the project that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; (2) there are no substantial changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; and (3) there is no new information of substantial importance,

which was not known and could not have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them; and

WHEREAS, each as a separate and independent basis from the other CEQA findings, the City Council finds the project exempt from CEQA review, according to exemptions cited in the CEQA addendum (including the exemptions in CEQA Guidelines Sections 15060, 15061, 15300,15304, 15330 and 15183); and

WHEREAS, in accordance with Government Code 65358, the City Council hereby finds and determines that it is in the public interest to amend the Safety Element of the Oakland General Plan as specified in this Resolution; now, therefore be it

RESOLVED: That the City of Oakland commits to continuing to take those actions, and initiating further actions, as appropriate, identified in the City of Oakland Local Hazard Mitigation Plan; and be it

FURTHER RESOLVED: the City of Oakland accepts the Oakland Planning Commission's approval of the CEQA Addendum prepared for the Oakland Local Hazard Mitigation Plan, finding no further environmental review is required for the adoption of the Local Hazard Mitigation Plan, because: (1) there are no substantial changes to the project or changes in circumstances that would result in new significant environmental impacts or a substantial increase in the severity of significant impacts already identified in the Previous CEQA Documents; (2) there is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the Previous CEQA Documents were as adopted, which is expected to result in (a) new significant environmental effects or a substantial increase in the severity of significant environmental effects already identified in the Previous CEQA Documents; or (b) mitigation measures which were previously determined not to be feasible would in fact be feasible, or which are considerably different from those recommended in the Previous CEQA Documents, and which would substantially reduce significant effects of the project, but the City declines to adopt them; and be it

FURTHER RESOLVED: each as a separate and independent basis from the other CEQA findings, the City Council finds the project exempt from CEQA review according to exemptions cited in the CEQA addendum (including CEQA Guidelines Sections 15060, 15061, 15300,15304, 15330 and 15183); and be it

FURTHER RESOLVED: the City of Oakland approves the General Plan Amendment (# GP 12001), which: 1) makes the City's adopted Local Hazard Mitigation Plan (attached as Exhibit A to this Resolution) an "Appendix F" of the *Safety Element* of the Oakland General Plan; and 2) adds language to the *Safety Element* as follows:

Beginning at Section 1.2 of the *Safety Element (p. 7)*, after the last sentence of "Implementing the safety element," add the following new policy statement as a new paragraph:

"1.2. The City will adopt and implement the strategies in a Local Hazard Mitigation Plan, which reduce the impacts of natural and man-made disasters, under the requirements of the Federal Disaster Mitigation Act of 2000. On March 20, 2012, the City Council adopted the Oakland Local Hazard Mitigation Plan, which serves as an "implementation appendix" to the *Safety Element* of the Oakland General Plan (and is included in the *Safety Element* as Appendix **F**). Specifically, the 360 strategies in the adopted Local Hazard Mitigation Plan are a set of actions the City is taking, or is considering taking, to reduce the risks of disasters on Oakland residents, businesses and essential government services. The Fire Department's Office of Emergency Services will be the lead City agency responsible for evaluating the Plan on a regular basis, as necessary, to comply with federal and state laws, and for preparing future editions of the Local Hazard Mitigation Plan."

In Section 2.4 Policy Statements, of the *Safety Element (p. 19)* , add two new Policy Statement (PS) Actions:

"Action PS-1.2.1 To comply with federal and state law, follow, update, and adopt the Oakland Local Hazard Mitigation Plan. (**OFD Office of Emergency Services, in consultation with the Department of Planning, Building and Neighborhood Preservation)"**

"Action PS-1.2.2 City staff will study the occurrence, and damage from, windstorms to the residents and businesses of Oakland. If windstorms are found to be a significant environmental hazard, then staff will include strategies to mitigate windstorms in the next update of the Oakland Local Hazard Mitigation Plan. (**OFD Office of Emergency Services)"**

and be it

FURTHER RESOLVED: this action is included and referenced as the first consolidated General Plan Amendment of 2012 to the Oakland General Plan, in accordance with state law.

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 20_____

PASSED BY THE FOLLOWING VOTE:

AYES - BROOKS, BRUNNER, DE LA FUENTE, KAPLAN, KERNIGHAN, NADEL, SCHAAF and PRESIDENT REID

NOES -

ABSENT -

ABSTENTION -

ATTEST: _____
LaTonda Simmons
City Clerk and Clerk of the Council
of the City of Oakland, California