



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

**CITY OF ORINDA**

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## **Introduction**

The City of Orinda, incorporated in 1985, is located in Contra Costa County, California. Situated in the San Francisco Bay Area, just east of the Oakland hills, the City is 12.8 square miles (a map of the City's jurisdictional boundary is provided in Exhibit A). The City has a population of 17,599 people, based on the 2000 census. The annual operating budget is \$11 million for fiscal year 2010 and for 2011. The City currently owns and maintains a City Hall, Community Center, Library, and Kindergym buildings occupying approximately 71,000 square feet. The City employs 41 regular part-time and full-time positions. Local Police services are provided by contract with the Contra Costa County Sheriff's Department. Fire services are supplied by the Moraga Orinda Fire District. Building construction permits and inspections are provided by contract with the Contra Costa County Building Inspection division of the Department of Conservation and Development. Orinda has experienced disasters including the Loma Prieta Earthquake of 1989 and, more recently, localized flooding during the winter of 2005/2006.

## **The Regional Planning Process**

The City of Orinda participated in various Association of Bay Area Government (ABAG) workshops, conferences, and meetings, including the following:

ABAG Local Hazard Mitigation Plan Update Workshop – May 8, 2009  
Comments to the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan were provided in December 2009

For more information on these meetings and for rosters of attendees, please see Appendix A and H in the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan 2010 (MJ-LHMP). In addition, the City of Orinda provided written and oral comments on the multi-jurisdictional plan and provided information on facilities that are defined as "critical" to ABAG. The City also held a publically noticed Traffic Safety Advisory Committee meeting on September 21, 2009 and solicited public input on the City of Orinda website in September 2009.

## **The Local Planning Process**

Representatives from multiple City departments met on a regular basis to identify and prioritize appropriate mitigation strategies. Personnel involved in these meetings included senior management and staff from the Public Works/Engineering Services and Police departments. The group was made up of planners, building department officials, facility managers, civil engineers, emergency managers, and police officials.

At the first meeting, general priorities and appropriate departments were identified. Subsequent meetings identified mitigation strategies, prioritized said strategies, and reviewed preliminary



budgets and potential funding sources for strategies designated as “High” priority for City-owned-and-operated facilities.

No formal meeting agendas, minutes, or sign-in sheet were prepared during this part of the process. City staff met in a collaborative approach to identify and review the various elements of the process.

***Process for Updating Plan Sections***

City staff began the update process by reviewing the 2005 Plan. Staff then research City records in order to provide new information on hazards and susceptibility within the City. The updates include new data regarding recent occurrences of natural hazards as well as updated information on risk assessment with new data provided by ABAG.

**Incorporating Other Plans into the Annex**

<b>Existing Plans, Studies, Reports, and Technical Information</b>	<b>Method of Incorporation into the City of Orinda Annex</b>
General Plan, Health and Safety Element	Hazard Assessment Mitigation Strategies
Capital Improvement Plan	Hazard Assessment Mitigation Strategies
Emergency Response Plan	Hazard Assessment Mitigation Strategies

***Public Meetings***

Opportunity for public comments on the DRAFT mitigation strategies was provided at a public meeting at the September 21, 2009 Traffic Safety Advisory Committee meeting at 7:00 p.m. and advertised on the City of Orinda website and publically noticed at three locations in the City (the City Hall, Orinda Library, and Community Center). The DRAFT mitigation strategies were also published on the City of Orinda website for public viewing. No public comments were received from either the meeting or the internet posting. Copies of the internet posting are included as **Exhibit B** to the City of Orinda 2010 Annex.

In the future, public notification regarding the Annex update will be expanded by contacting additional media. Additionally, future updates of the plan could include coordination with neighboring cities in a public outreach effort. This may allow the adjacent jurisdictions to make the process more informative and potentially elicit greater public comment.

The Orinda City Council will adopt the plan in a public meeting via an official Resolution upon approval by FEMA. The mitigation strategies will become an implementation appendix of the Safety Element of the City of Orinda General Plan.



## Hazards Assessment

The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan, to which this is an annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). Maps of these hazards and risks are shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

The City of Orinda has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion, in consultation with staff, is that earthquakes (particularly shaking), flooding (including dam failure), wildfire, and landslides (including unstable earth) pose a significant risk for potential loss.

The City of Orinda does not face any natural disasters not listed in the ABAG multi-jurisdictional plan and new hazards have been identified by the City of Orinda since the original development of this plan in 2005.

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

## Past Occurrences of Disasters (Natural and Human-Induced)

The City of Orinda 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. A vast area of Orinda is considered in a Very High Fire Hazard Severity Zone to the proximity to open space. The City of Orinda is located directly east of the Oakland Hill, which in 1991 suffered one of the worst wildland-urban firestorm disasters to ever strike the United States with 25 deaths, 150 injuries, and losses in excess of \$1.5 Billion. Fire protection is provided by the Moraga Orinda Fire District.

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

In addition to the declared disasters noted in Appendix D, locally significant incidents that have also impacted the City of Orinda in the last several years include:

- December 31, 2005 and January 1, 2006 localized flooding. The City of Orinda declared a local emergency.



## Risk Assessment

### Urban Land Exposure

The City of Orinda examined the hazard exposure of the City of Orinda urban land based on information in ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. The "2005 Existing Land Use with 2009 Mapping" file was used for this evaluation (in the existing plan, the file used was "Existing Land Use in 2000").

In general, the hazard exposure of the City of Orinda has remained unchanged over time. There has been a minor reduction of urban land in the 100 year flood zone over the last 5 years due to changes in the new FEMA flood maps. The following table described the exposure of urban land within the City to the various hazards.

<b>Exposure (acres of urban land)</b>			
<b>Hazard</b>	<b>2005</b>	<b>2010</b>	<b>Change</b>
<i>Total Acres of Urban Land</i>	6276	6274	2
Earthquake Faulting (within CGS zone)	0	0	0
Earthquake Shaking (within highest two shaking categories)	3434	3435	1
Earthquake-Induced Landslides (within CGS study zone)	0	0	0
Liquefaction (within moderate, high, or very high liquefaction susceptibility)	164	149	(18)
Flooding <sup>1</sup> (within 100 year floodplain)	151	117	(34) <sup>1</sup>
Flooding (within 500 year floodplain)	1	13	12
Landslides (within areas of existing landslides)	5653	5651	(2)
Wildfire (subject to high, very high, or extreme wildfire threat) <sup>2</sup>	1543	1317	(226)
Wildland-Urban Interface Fire Threat	6037	6037	0
Dam Inundation (within inundation zone)	105	105	0
Sea Level Rise <sup>3</sup>	Not Applicable		
Tsunamis <sup>4</sup> (within inundation area)	Not Applicable		
Drought <sup>5</sup>	6276	6274	(2)

<sup>1</sup> New digital FEMA mapping provides more accurate accounting of properties with structures in the floodplain.

<sup>2</sup> The decrease is due to better and more accurate mapping.

<sup>3</sup> The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.

<sup>4</sup> 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.

<sup>5</sup> The entire area of the City of Orinda is subject to drought.



## Infrastructure Exposure

The City of Orinda also examined the hazard exposure of infrastructure within the jurisdiction based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 139 miles of exposed roads, there are 93 miles of public roads, approximately 27 miles of private roads, and the remaining 19 miles are State Highway/Off-Ramps/On-Ramps in the City of Orinda, the following are exposed to the various hazards analyzed.

Exposure (miles of infrastructure)						
Hazard	Roadway		Transit		Rail	
	2005	2010	2005	2010	2005	2010
<i>Total Miles of Infrastructure</i>	<i>134</i>	<i>139</i>	<i>2</i>	<i>2</i>	<i>0</i>	<i>0</i>
Earthquake Shaking (within highest two shaking categories)	80	83	2	2	0	0
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility)	2	2	0	0	0	0
Liquefaction Hazard (within CGS study zone) <sup>1</sup>	0	0	0	0	0	0
Earthquake-Induced Landslides (within CGS study zone)	0	0	0	0	0	0
Earthquake Faulting (within CGS zone)	0	0	0	0	0	0
Flooding (within 100 year floodplain)	0	2	0	0	0	0
Flooding (within 500 year floodplain)	0	2	0	0	0	0
Landslides (within areas of existing landslides)	43	44	1	1	0	0
Wildfires (subject to high, very high, or extreme wildfire threat)	30	24	0	0	0	0
Wildland-Urban Interface Fire Threat	127	131	2	1	0	0
Dam Inundation (within inundation zone)	2	2	0	0	0	0
Sea Level Rise <sup>2</sup>	not applicable					
Tsunamis <sup>3</sup>	not applicable					
Drought <sup>4</sup>	not applicable					

<sup>1</sup> 93 miles of public roads and 27 miles of private roads and 19 miles of highway related roads/ramps are within the area that has been evaluated by CGS for this hazard.

<sup>2</sup> The sea level rise map is not a hazard map. It is not appropriate to assess infrastructure exposure to sea level rise.

<sup>3</sup> Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005. This map became available in December 2009. Miles of exposed infrastructure is not an appropriate analysis for this hazard. It should be noted that this map is not a hazard map and should be used for evacuation planning purposes only. The inundation line represents the highest inundation at any particular location from a suite of tsunami sources. It is not representative of any single tsunami.

<sup>4</sup> Drought is not a hazard for roadways.



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

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

<b>Exposure (number of facility types)</b>								
<b>Hazard</b>	<b>Hospitals</b>		<b>Schools</b>		<b>Locally owned critical facilities</b>		<b>Locally owned bridges and interchanges</b>	
	<b>2005</b>	<b>2010</b>	<b>2005</b>	<b>2010</b>	<b>2005</b>	<b>2010</b>	<b>2005</b>	<b>2010</b>
<i>Total Number of Facilities</i>	1	1	9	9	8	88	16	16
Earthquake Shaking (within highest two shaking categories)	1	1	8	8	8	64	14	14
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility)	0	0	2	1	0	0	0	0
Liquefaction Hazard (within CGS study zone) <sup>10</sup>	<i>Not mapped for Contra Costa County.</i>							
Earthquake-Induced Landslides (within CGS study zone) <sup>11</sup>	<i>Not mapped for Contra Costa County.</i>							
Earthquake Faulting (within CGS zone)	0	0	0	0	0	0	0	0
Flooding (within 100 year floodplain)	0	0	0	0	0	0	0	0
Flooding (within 500 year floodplain)	0	0	0	0	0	1	0	1
Landslides (within areas of existing landslides)	1	1	5	6	3	59	7	10
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	1	0	1	3	1	0
Wildland-Urban Interface Fire Threat	1	1	8	8	6	89	14	12
Dam Inundation	0	0	0	0	0	5	2	1
Sea Level Rise <sup>12</sup>	-	0	-	0	-	0	-	0
Tsunamis <sup>13</sup>	-	0	-	0	-	0	-	0
Drought <sup>14</sup>	0	0	0	0	0	0	0	0

<sup>10</sup> The California Geological Survey mapping for Contra Costa County has not been completed with CGS study zone for Liquefaction Hazard.

<sup>11</sup> The California Geological Survey mapping for Contra Costa County has not been completed with CGS study zone for Earthquake Induced Landslides.

<sup>12</sup> Sea level rise data - Orinda is located inland at an elevation of 495 ft.

<sup>13</sup> Tsunami – Orinda is located inland at an elevation of 495 ft.

<sup>14</sup> Drought will not affect locally owned facilities directly.



### ***Repetitive Loss Properties***

There are two repetitive loss properties in the City of Orinda based on 2004 information at <http://quake.abag.ca.gov/mitigation/floodloss/contracosta/#data.htm>. In August 2010, FEMA provided confirmation that the City still has two repetitive loss properties. One repetitive loss property is residential and the other repetitive loss property is commercial. This residential property is located within the floodplain. In 2004 and 2009 the City had no repetitive loss property that was outside the floodplain. FEMA has identified one of these properties as a severe repetitive loss property (i.e., a property with four claims each over \$5,000 and cumulative amount exceeding \$20,000 – as opposed to a Repetitive Loss property which has lower thresholds).

### ***Other Risks***

The City plans to work with ABAG to improve the risk assessment information being compiled by ABAG, including ways to develop specific information about the anticipated level of damage to building, infrastructure, and critical facilities which might result from any of the hazards previously noted.

The City of Orinda plans to continue to work with ABAG to improve the risk assessment information being compiled by ABAG, including developing ways to assess how many soft-story buildings are located in the City.

The City of Orinda plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted.

## **National Flood Insurance Program**

The City of Orinda has participated in the National Flood Insurance Program (NFIP) since 1988. The City of Orinda does not participate in the Community Rating System. In 2009, FEMA digitized all National Flood Insurance Program maps in Contra Costa County, including the City of Orinda. Flood zone information, including Base Flood Elevation data, is required for building permits.

City staff also considers information provided by geotechnical engineers and civil engineers as well as site inspections to assess the flood risk on parcels within the City. There are no known obstacles for effective implementation of the NFIP.

## **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 Orinda in designing its mitigation program.

Additionally, the City has the specific objective of increasing protection of the number of public and private buildings within the City that are vulnerable to the effects of earthquakes. Orinda continues to actively pursue grant opportunities for the North Lane Stormwater Improvement Project. This project will construct a new storm drain system on North Lane

## **Mitigation Activities and Priorities**

### ***Evaluation of Progress from 2005 Plan***

In 2005, mitigation actions and priorities were identified. The attached listing indicates significant strategies identified, along with responsible party, action taken, and current status of progress. Note that the City contracts the Police and Building services and as such many of those related strategy activities are covered through Contra Costa County. Fire service activities are covered through the Moraga Orinda Fire District.

- Infra a-4: In June 2007 the City of Orinda completed construction of a City Hall. These offices replace critical lifeline of infrastructure facilities that were previously housed in trailers. The building is the City of Orinda primary Emergency Operations. It also includes the Police, Administration, Finance, Planning, and Public Works/Engineering Departments.
- Infra a-7: Work cooperatively with East Bay Municipal Utility District (EBMUD) in applying for grant opportunities to improve the North Lane Stormwater system.
- Infra a-8: Emergency generator was included in the design of the new City offices of Orinda where the Emergency Operations center is located. The generator is tested on a regular basis.
- Infra a-9: The Capital Improvement Plan for Fiscal Year 11 includes a program to invest in battery backups for traffic signals over a period of four years.
- Infra a-12: The City has identified a project to underground overhead utilities on Miner Road in Orinda. The design work is in progress by Pacific Gas & Electric (PG&E). The work has been put temporarily on hold by PG&E as Rule 20A funding has been temporarily reallocated to other programs.
- Infra b-1, b-2, Infra d-11: The Capital Improvement Plan for Fiscal Year 11 identifies three bridge projects requiring seismic retrofitting, based on analysis by Caltrans. The Manzanita Drive Bridge Replacement project raises the bridge above the flood elevation. The project is designed and currently additional environmental analysis and reports are in draft review.
- Infra d-5, d-6, d-7, d-8: The Capital Improvement Plan for Fiscal Year 11 identifies an annual program to replace failing or damaged storm drains. Maintenance of storm water facilities are on-going.
- Infra e-2: The City has included by ordinance requirements for scenic easements for hillside development.



- Heal c-2, c-3, c-4, c-5: Police services are contracted with the Contra Costa County Sheriff's Department. The Sheriff's Office of Emergency Services (OES) is responsible for disaster preparedness, and response and recovery planning. OES coordinates information, resources, and priorities among County agencies, local governments, and special districts. OES serves as a link between CalEMA and the County's cities and special districts.
- Hsng a-1: City staff provides information to real estate agents and property owners regarding questions related flood, fire, earthquake, and landslide hazard zones.
- Hsng h-3: The City requires drainage plan review for property improvements and appropriate fees are collected.
- Hsng h-4: Information on sandbag locations is provided in the City newsletter to residents as well as the City website.
- Hsng k-6: The Police Department sponsors the formation and training of Community Emergency Response Teams. The a community group from the Lafayette, Moraga, Orinda area has formed a Lamorinda Cert organization with a web page: [www.lamorindacert.org](http://www.lamorindacert.org)
- Govt b-1, b-2, b-3, b-4, b-5: A local government emergency operations plan for the City of Orinda was revised and updated in June 2008.
- Govt c-14: The City is covered under the Contra Costa County Community Warning System that is fully explained at the following website: <http://www.co.contra-costa.ca.us/index.aspx?nid=161>
- Govt d-5: The City participates in the National Flood Insurance Program and most recently provided comments to FEMA prior to the finalization of the new digital flood maps.
- Envi a-1: Projects within Orinda are required, through the Planning review process, to analyze potential environmental impacts and mitigate any impacts.
- Envi a-6: The City works closely with the San Francisco Bay Regional Water Quality Control Board to ensure that erosion and stormwater control measures are in place prior during wet weather construction activities.
- Envi a-7: The City annually inspects and documents construction sites prior to the rainy season. Additionally, site visits are regularly conducted during the rainy season.
- Envi b-11: Recycling events are now more important than ever in the community and are encouraged and sponsored/staffed by the City.
- Land a-2, d-1: Due to the geologic formation of the area, geotechnical reports are required for new home construction, most remodels, and new development projects.

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

As a participant in the 2010 ABAG multi-jurisdictional planning process, the staff of the City of Orinda helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage. Representatives from



multiple departments then met on a regular basis to review progress on the jurisdiction's 2005 strategies, to identify and prioritize additional mitigation strategies to update the list

These draft priorities were submitted to City of Orinda management for review. The draft priorities will be provided to the Orinda City Council for adoption pending approval of this LHMP by FEMA. Strategies are attached as Exhibit C.

The City planning team also prioritized specific mitigation tasks for the next 5 years. This list includes implementation process, funding strategy, responsible department/agency, and approximate time frame. As part of the process, the team identified the existing programs and activities which were either completed or likely to continue. The projects were developed and reviewed at a publically notice workshop on April 15, 2010, presented at the May 18, 2010 Orinda City Council meeting, and the capital improvement plan budget and operating budget was adopted at the June 1, 2010 Orinda City Council meeting.

The following proposed projects address mitigation strategies to improve emergency operations communication as well as mitigating flooding, earthquakes, wildfires, and landslides:

- (Government – Emergency Response) Radio Communication Upgrades – A P25 compliant communications system with region wide interoperability with the San Francisco Bay Area Super Urban Area Security Initiative (UASI).
  - Hazard Mitigation Strategy: Increase public safety and regional communication.
  - Economic Analysis: Risk analysis and economic loss supported by the effectiveness of proposed investments for regional program.
  - Responsible Department/Agency: Orinda Police Department coordinated through the Contra Costa County Sheriff's Department
  - Funding Source: Grant funding and Orinda General Funds through a Joint Powers Agreement
  - Timeframe: Complete operability 2013/2014
  - Mitigation Strategy Number: GOVT c-7
  
- (Infrastructure- Flooding) North Lane Storm Water Improvement Project - Installation of a new 60 inch drainage facility within City of Orinda right-of-way and through East Bay Municipal Utility District (EBMUD) Water Treatment Facility property.
  - Hazard Mitigation Strategy: Reduce flooding hazard and ensure the safety of potable drinking water for 800,000 people.
  - Economic Analysis: Funding for improvements was based on a preliminary analysis by a hydrologist with benefit cost ratio analysis by FEMA software.
  - Responsible Department: Orinda Public Works and Engineering Services Department
  - Funding Source: FEMA DR1810 Funds, Orinda General Funds, and EBMUD Funds.
  - Timeframe: Design in FY11/12 and construction in 2013.
  - Mitigation Strategy Number: INFR d-5



- *(Infrastructure – Earthquakes & Flooding) Manzanita Drive Bridge Replacement Project*  
– The Manzanita Drive Bridge Replacement project replaces a bridge that will be compliant with current seismic standards and raises the bridge deck above the flood elevation.
  - Hazard Mitigation Strategy: Increased public safety during a seismic event.
  - Economic Analysis: Cost analysis conducted by Caltrans determined that bridge was eligible for replacement and funding.
  - Responsible Department: Orinda Public Works and Engineering Services Department
  - Funding Source: Orinda General Funds and State and Federal funding.
  - Timeframe: Design complete Summer 2011. Construction FY12/13
  - Mitigation Strategy Number: INFR b-1, b-2, INFR d-11
  
- *(Land Use Mitigation Strategies - Landslides) El Toyonal Slope Stabilization* – Slope stabilization of a road in a residential area in Orinda, which is also a designated emergency evacuation route. Geotechnical study and design by licensed geotechnical engineer.
  - Hazard Mitigation Strategy: Remediation of slope failure of road travel lane.
  - Economic Analysis: Cost estimate prepared by geotechnical engineer. The City operating budget annually designates a set aside fund solely for slope stabilization projects.
  - Responsible Department: Orinda Public Works and Engineering Services Department
  - Funding Source: Local funds - Slope Stabilization Funds.
  - Timeframe: Design and construction in 2011.
  - Mitigation Strategy Number: LAND d-1
  
- *(Housing Mitigation Strategies) – Wildfire and Structural Fires* - Participate with the Moraga Orinda Fire Department (MOFD) in the “Ready Set Go” program to improve coordination and communication between emergency response agencies and the community.
  - Hazard Mitigation Strategy: The MOFD is the lead agency that will be working with a consulting firm to develop a program addressing wildland urban interface fire threatened communities. The City of Orinda Police Department will be working with the consultant, through MOFD, to develop evacuation routes in the City of Orinda as a program element.
  - Responsible Department: Orinda Police Department.
  - Funding Source: Local funds.
  - Timeframe: Program Completion 2014.
  - Mitigation Strategy Number: HSNB g-11



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

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

- Vulnerability assessments of City facilities and infrastructure (GOVT-a-1) ;
- Non-structural mitigation for building contents (GOVT-a-4);
- Coordination with the State Division of Safety of Dams to ensure that cities and counties are aware of the timeline for the maintenance and inspection of dams whose failure would impact their jurisdiction; (GOVT-a-8);
- Development of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies. (GOVT-c-7);
- Coordinate services through the Contra Costa County's Standardized Emergency Management System Plan (GOVT-c-12);
- Participation in general mutual-aid agreements and agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters (GOVT-c-13);
- Participation in FEMA's National Flood Insurance Program (GOVT-d-5)
- Develop printed materials, utilize existing materials (such as developed by FEMA and the American Red Cross), conduct workshops, and/or provide outreach encouraging employees of these critical health care facilities to have family disaster plans and conduct mitigation activities in their own homes (HEAL-a-7);
- Sponsor the formation and training of Community Emergency Response Teams (CERT) through partnerships with local businesses (GOVT-c-3, ECON-j-5, HWNG-k-6);
- Incorporate FEMA guidelines and suggested activities into local government plans and procedures for managing flood hazards (LAND-c-2);
- Increase efforts to reduce landslides and erosion in existing and future development through continuing education of design professionals on mitigation strategies (HSNG—i-2, ECON-g-2);
- Conduct an inventory of existing or suspected soft-story residential, commercial and industrial structures (HSNG-c-4, ECON-b-4);
- Continue to repair and make structural improvements to storm drains, pipelines, and/or channels to enable them to perform to their design capacity in handling water flows as part of regular maintenance activities (INFR—d-6, INFR-d-7)

### **Incorporation into Existing Planning Mechanisms**

The City has several planning mechanisms including the following:

- ◆ General Plan Safety Element
- ◆ Capital Improvements Plan

The City has a Safety Element in its General Plan that includes a discussion of fire, earthquake, flooding, and landslide hazards. This plan was adopted as an implementation appendix to the



Safety Element. In addition, the City enforces the requirements of the California Environmental Quality Act (CEQA), which, since 1988, requires mitigation for identified natural hazards. The City has used these pre-existing programs as a basis for identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

The research conducted and information provided in this Annex will be used to assess the purchase of new City equipment, train staff, upgrade infrastructure, and review the City's Capital Improvement Plan in order to reduce property damage and create a more disaster resistant region.

## **Plan Update Process**

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

The Public Works/Engineering Services Department and Police Department of the City of Orinda will ensure that monitoring of this Annex will occur. The plan will be monitored on an annual basis by the City management team. The team will collect basic data and review potential changes in respect to recent significant events, as well as technological, political, and economic changes. However, the major disasters affecting our City, legal changes, or notices from ABAG as the lead agency in this process, and may trigger further or additional review. Finally, the Annex will be a discussion item on the agenda of the meeting of Department leaders at least once a year in April or May. At that meeting, the department heads will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. The Department leaders will be responsible for determining if the plan should be updated.

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

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



## Mitigation Plan Point of Contact

Name: Janice Carey  
Title: City Engineer  
Mailing Address: 22 Orinda Way  
Telephone: (925) 253-4260  
Email: [jcarey@cityoforinda.org](mailto:jcarey@cityoforinda.org)

### *Alternate*

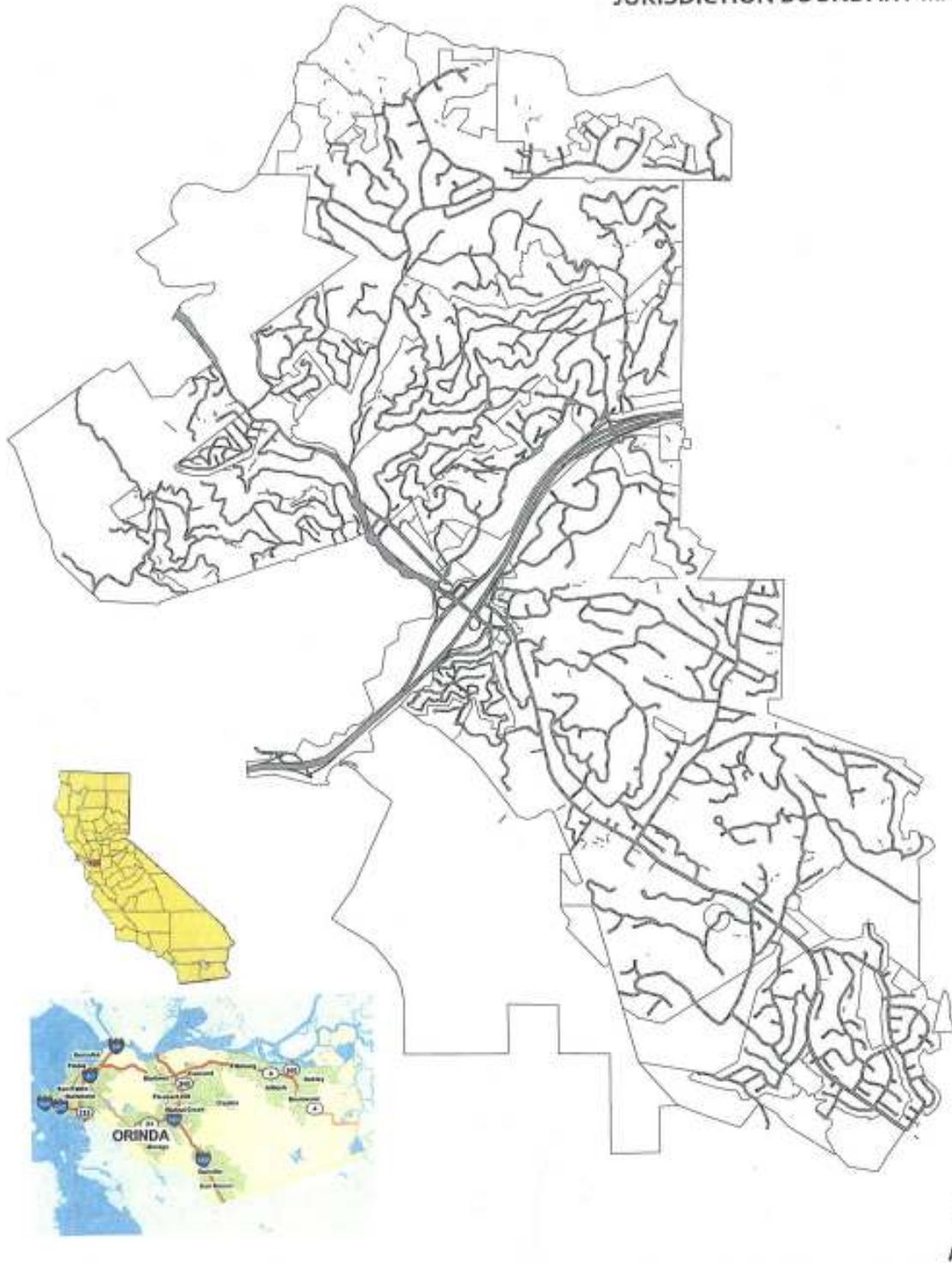
Name: Jeff Jennings  
Title: Chief of Police  
Mailing Address: 22 Orinda Way  
Telephone: (925) 253-4230  
Email: [jjennings@cityoforinda.org](mailto:jjennings@cityoforinda.org)



## Exhibit A - Jurisdiction Boundary Map



CITY OF ORINDA  
JURISDICTION BOUNDARY MAP





## Exhibit B - Public Meeting Announcements



SEARCH



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- Home
- Items of Interest
- About Us
- Government
- Departments
- City Projects
- Community Links
- Employment
- Contact Us
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## Local Hazard Mitigation Plan Updates

### Request for Public Input

Major natural disasters such as earthquake, fire or flood will strike the Bay Area in the future. Lives will be lost, property damage will occur, and our economy will suffer. The Association of Bay Area Government (ABAG) is leading the effort to coordinate Bay Area local governments to mitigate those losses through the multi-jurisdictional Local Hazard Mitigation Plan (LHMP). Having a FEMA approved plan ensures that Orinda will be eligible for mitigation grant funds.

The Plan is organized into eight commitment areas, which are related to the services supplied either directly or indirectly, by local governments. These commitment areas are: Infrastructure; Health; Housing; Economy; Government; Education; Environment; and Land Use.

The City of Orinda encourages you to provide comments on its [Local Hazard Mitigation Plan Strategy Updates](#).

To make comments [click here](#) to download the Local Hazard Mitigation plan. Please submit any comments by September 29, 2009 to:

Janice Carey, City Engineer  
 City of Orinda  
 22 Orinda Way  
 Orinda, CA 94563  
 (925) 253-4260  
[jcarey@cityoforinda.org](mailto:jcarey@cityoforinda.org)

For information on Earthquake and Hazard Maps, Making Your Home Safer, and Tools for Preparedness, please visit the ABAG website at: <http://quake.abag.ca.gov>

22 Orinda Way, Orinda, California 94563

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[Notice of Proposed Class Action Settlement and Fairness Hearing](#)

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### City News

#### [Local Hazard Mitigation Plan Updates](#)

##### Request for Public Input

The Association of Bay Area Government (ABAG) is leading an effort to coordinate Bay Area local governments to mitigate natural disaster losses through a multi-jurisdictional Local Hazard Mitigation Plan (LHMP).

[Read more...](#)

#### [2009 Mayor's Award for Excellence in Architecture](#)



*The Mayor's Award for Excellence in Architecture entry deadline date has been extended to September 30, 2009. Four categories include:*

- Excellence in Architecture Major*
- Excellence in Architecture Minor*
- Excellence in Landscape*
- Excellence in Environmental Sustainability*

[Click here to read more.](#)

[Read more...](#)

#### [Art in Public Places](#)



### The City of Orinda Wants Your Input!

You are cordially invited to take a brief online survey. We would like to solicit input from the community regarding the potential acquisition of artwork. Please take a moment to respond to the following questions.

[Click Here to take survey](#)

[Read more...](#)

#### [New Pharmaceutical Disposal Collection Box](#)

### Orinda Meeting Information

To view a current listing of Orinda City Meetings time, locations and agendas [click here.](#)

### Parks & Recreation



**\*\*LOCATION OF MEETING\*\***

**SARGE LITTLEHALE  
COMMUNITY ROOM  
22 ORINDA WAY**



CITY OF ORINDA  
22 ORINDA WAY  
ORINDA, CA 94563  
(925) 253-4200

**TRAFFIC SAFETY ADVISORY COMMITTEE (TSAC) AGENDA  
Monday, September 21, 2009  
7:00 P.M.**

- A. Call to Order**
- B. Roll Call**
- C. Traffic Safety Advisory Committee (TSAC) Meeting Minutes  
August 17, 2009**

**Recommendation:** Approve.

**D. Public Comment**

This section of the agenda is provided for the public to express comments on items that do not appear on the agenda. Comments should be restricted to items of interest to the public that are within the subject matter jurisdiction of the Committee. Public comments offered during the public forum which are addressed to an agenda item, will be considered by the Committee and made part of the public hearing record only if the comments are also offered at the time and place scheduled for the public hearing or submitted in writing prior to the close of the public hearing. Public speakers are encouraged to summarize their comments and limit presentations to three (3) minutes per item.

**E. Traffic Calming Updates and Actions**

- 1. Briefing from Police Chief - SLOW DOWN ORINDA/Traffic Citations Report
- 2. Local Hazard Mitigation Plan Presentation and Mitigation Strategy Priorities - Police Chief
- 3. Bike/Walk to Work and School Day October 7, 2009
- 4. Progress Report - Bicycle, Trail, and Walkway Master Plan and Brochure
- 5. Traffic Calming Requests - Don Gabriel Way; Ivy Drive; El Camino Moraga; Camino Sobrante
- 6. Bicycle, Trail, and Walkway Master Plan - Trim Ordinance Review
- 7. Accessibility Issues

**F. City Engineer's Report**

**G. Matters Initiated**

Consideration of matters a Committeemember wishes to initiate for placement on a future TSAC agenda.

**H. Adjournment**

I, Michele Olsen, City Clerk, declare under penalty of perjury under the laws of the State of California that this agenda has been posted at least 72 hours in advance at the Orinda City Offices. Additional copies are available at the Orinda Library, the Orinda Community Center, and on the City's website at [www.cityoforinda.org](http://www.cityoforinda.org).

  
Michele Olsen, City Clerk

**-- Accessible Public Meetings --**

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**CITY OF ORINDA  
TRAFFIC SAFETY ADVISORY COMMITTEE  
MINUTES**

September 21, 2009

A REGULAR MEETING OF THE TRAFFIC SAFETY ADVISORY COMMITTEE WAS HELD ON THE ABOVE DATE IN THE SARGE LITTLEHALE COMMUNITY ROOM, 22 ORINDA WAY, ORINDA, CALIFORNIA.

**A. CALL TO ORDER**

Vice-Chair Schnier called the meeting to order at 7:05 p.m.

The following documents were provided at this meeting:

1. Multi-Jurisdictional Local Hazard Mitigation Plan, City of Orinda, by Association of Bay Area Governments (ABAG)
2. Draft - Infrastructure Mitigation Strategies, dated September 21, 2009

**B. ROLL CALL**

COMMITTEE MEMBERS: John Eddy (absent, excused), Tom MacKinnon, Gary Moore (absent, excused), Nan Reed, Mark Roberts, Steve Schnier, Tracey Seals (absent, excused)

City Staff: Police Chief Bill French, City Engineer Janice Carey

**C. TRAFFIC SAFETY ADVISORY COMMITTEE (TSAC) MEETING MINUTES**

MOTION: By Committeemember MacKinnon, seconded by Committeemember Roberts, to approve the TSAC meeting minutes of August 17, 2009. The motion passed by unanimous voice vote.

**D. PUBLIC COMMENT**

Oliver Portet and Nicole Portet, Orinda residents, stated their concerns regarding the high speed of traffic on Rheem Boulevard and cited a recent accident on the roadway.

Police Chief French explained the circumstances of the referenced roll-over accident, which was caused by the driver experiencing a heart attack. He detailed traffic enforcement policies and recommended placement of the radar trailer, (though placement on Rheem Boulevard can be problematic), and targeted enforcement on Rheem Boulevard in the coming weeks.

Vice-Chair Schnier reviewed the process for requesting traffic calming measures.

Committeemember MacKinnon added that Rheem Boulevard is an arterial and options are limited on such roadways.

**E. TRAFFIC CALMING UPDATES AND ACTION**

1. Briefing from Police Chief - SLOW DOWN ORINDA/Traffic Citations Report  
Chief French provided the Traffic Citations Report. During the month of August, 59 speeding citations were issued, of which 42% were issued to Orinda drivers, 19% to Lafayette and Moraga drivers, and 39% to drivers from outside the area.

Chief French also reported accidents and crime statistics, noting that high school drinking has been in the forefront for the department.

2. Local Hazard Mitigation Plan Presentation and Mitigations Strategy Priorities – Police Chief French discussed the Multi-Jurisdictional Local Hazard Mitigation Plan and the handling of potential hazards by maintaining a pro-active stance. He presented several ABAG maps detailing hazards such as flooding, earthquakes, and wild land fires.

City Engineer Carey distributed copies of the Draft Infrastructure Mitigation Strategies and solicited comments. She noted that the document will also be available on the City website for comments.

Vice-Chair Schnier questioned what response can be anticipated from the Fire District during an emergency.

Chief French noted that a "heavy response" is expected from Fire in the event of a major disaster. The Police Department coordinates communications at the Fire command post during an emergency.

3. Bike/Walk to Work and School Day October 7, 2009

City Engineer Carey advised that she will be sending a Walk/Bike/Bus to School flyer to the TSAC members.

Vice-Chair Schnier will be coordinating with Wagner Ranch School

4. Progress Report – Bicycle, Trail, and Walkway Master Plan and Brochure  
Committeemember MacKinnon reported that the City Council will be scheduling a workshop in the near future to discuss the Bicycle, Trail, and Walkway Master Plan (BTW). He opined that the possibility of a Moraga Way pathway is remote but the portion between Ivy Drive (south) and Ivy Drive (north) may be a potentially viable project. He displayed a map showing the proposed paths.

City Engineer Carey recommended a feasibility study.

Committeemember Roberts stated that he believes the residents want to see the benefits of a constructed project.

City Engineer Carey noted that there is no identified funding in the Capital Improvement Plan for any of the projects in the BTW.

Committeemember MacKinnon commented that the list should be prioritized and cost and feasibility should be re-considered.

Committeemember Reed expressed interest in seeing the costs for sections of Moraga Way, as well as the entire length of the roadway. She requested that TSAC members receive notice for the upcoming City Council workshop.

5. Traffic Calming Requests - Don Gabriel Way; Ivy Drive; El Camino Moraga; Camino Sobrante  
Vice-Chair Schnier noted that there are requests pending consideration.

City Engineer Carey will send e-mails to speed cushion petitioners to advise them that the revised Traffic Calming Guidelines will be agendaized for the October 6, 2009 City Council meeting.

6. Bicycle, Trail, and Walkway Master Plan – Trim Ordinance Review  
Committeemember MacKinnon acknowledged his understanding of the vegetative minimum clearances. He would like to see some specific streets in the BTW programmed to be cleared. He noted that any possible action would follow approval of the BTW Master Plan by the City Council.

Vice-Chair Schnier will walk El Toyonal with Committeemembers MacKinnon and Roberts to look at the vegetation.

7. Accessibility Issues

City Engineer Carey provided an update on the proposed settlement of the Vaughn v. City of Antioch et al. There has also been a request for information from an attorney in San Luis Obispo.

**F. CITY ENGINEER'S REPORT**

City Engineer Carey reported on the following items:

- The City was not successful in obtaining a *Safe Route to Schools* grant.
- Copies of the staff report for the October 6, 2009 City Council meeting regarding the revised NTMP will be forwarded to the TSAC members.

**G. MATTERS INITIATED**

Items for the next TSAC agenda:

- Briefing from Police Chief - SLOW DOWN ORINDA/Traffic Citations Report
- Report – Traffic Calming Guidelines
- Report - October 7, 2009 Bicycle/Walk/Bus to School Day
- Bicycle, Trail, and Walkway Master Plan
- Traffic Calming Requests - Don Gabriel Way; Ivy Drive; El Camino Moraga; Camino Sobrante
- Accessibility Issues

**H. ADJOURNMENT**

The Traffic Safety Advisory Committee meeting adjourned at 8:55 p.m.

The next meeting of the Traffic Safety Advisory Committee will be 7:00 p.m., Monday, October 19, 2009 in the Sarge Littlehale Community Room, 22 Orinda Way, Orinda, California.

Prepared by: J. Carey

**\*\*LOCATION OF MEETING\*\***

**SARGE LITTLEHALE  
COMMUNITY ROOM  
22 ORINDA WAY**



*Janice*

CITY OF ORINDA  
22 ORINDA WAY  
ORINDA, CA 94563  
(925) 253-4200

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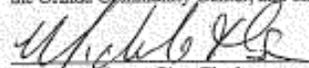
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Michele Olsen, City Clerk

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## Exhibit C - Orinda Regional Mitigation Strategies

Available on LHMP CD or at <http://www.abag.ca.gov/bayarea/eqmaps/mitigation/strategy.html>