

PROTECT OAKLAND

CITY OF OAKLAND GENERAL PLAN | **SAFETY ELEMENT**



November 2004

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This document is dedicated to those in Oakland who lost their lives, loved ones or their homes as a result of the Loma Prieta earthquake on October 17, 1989 or of the Oakland Hills fire on October 20, 1991.

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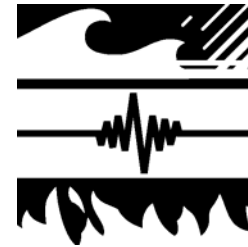
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EXECUTIVE SUMMARY

California state law requires that each city and county adopt a general plan to guide its physical growth and development. A jurisdiction's general plan is its official policy document regarding the future location of housing, business, industry, transportation facilities, parks, open space and other land uses; the conservation of natural resources; and the protection of the public from safety hazards. General plans must address locally relevant planning issues categorized under seven mandatory "elements:" land use, circulation, housing, conservation, open space, noise and safety. Among these, the safety element seeks to reduce the potential risk of death, injuries, property damage and economic and social dislocation resulting from large-scale hazards, including earthquakes, flooding and fires.

This document constitutes the safety element of the city of Oakland's general plan and is the first update of the city's original safety element (adopted in 1974 as the "Environmental Hazards Element"). The updated safety hazards element contains seven chapters: an introduction or general overview, five chapters dealing with specific environmental hazards (public safety, geologic hazards, fires, hazardous materials and flooding) and a chapter aggregating hazards by area of the city.



In general, each chapter contains an overview of a specific hazard or issue; an outline of the institutional framework, including laws, regulations and programs; an analysis of critical aspects related to the hazard or issue; at least one map; a set of policies and actions—referred to collectively in this document as policy statements—specific to that hazard or issue; and a list of resources, including the names of agencies consulted for information, a bibliography and online sources of information. (For easy reference, all the document’s policy statements are presented together under the next section, titled “Directory of Policy Statements.”) Below are brief descriptions of the contents under each chapter:

- Chapter 1, “Introduction,” presents a profile of the City of Oakland and overviews of general plans, of safety elements and of the Oakland general plan; discusses the organization and goals of the safety element, and the process taken to update it; and considers the element’s relationship to other elements of the city’s general plan and to safety elements from adjacent jurisdictions.
- Chapter 2, “Public Safety,” discusses the framework through which the City of Oakland plans for, mitigates, responds to and recovers from environmental disasters and emergencies and from public-safety incidents.
- Chapter 3, “Geologic Hazards,” analyzes the City of Oakland’s risk from the main geologic and seismic hazards, namely earthquake-induced fault rupture and ground shaking, liquefaction, and landslides and mudslides.
- Chapter 4, “Fire Hazards,” analyzes the city’s risk from wild fires and structural fires, as well as the city’s fire-fighting capabilities, water supply and roadway standards and emergency routes.
- Chapter 5, “Hazardous Materials,” analyzes the risk to Oakland from the use, handling, storage, transport and disposal of hazardous materials, including toxic air contaminants; more specifically, it considers issues related to brownfields and contaminated sites, aboveground and underground storage tanks, household hazardous wastes, and land-use incompatibilities between homes and heavy industry.
- Chapter 6, “Flooding Hazards,” analyzes Oakland’s risk from five inundation hazards: excessive stormwater runoff from heavy rain, the failure of dams and other water-holding structures, tsunamis, seiches and a rise in sea level.

- Chapter 7, “Hazards by Area,” correlates the most significant identified hazards with each of six distinct areas of the city: West Oakland (including the seaport), Central Oakland, East Oakland (including the airport), North Oakland, the Lower Hills and the Upper Hills.

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DIRECTORY OF POLICY STATEMENTS

Overview As suggested below, in Chapter 1 (“Introduction”), a set of policy statements should be at the heart of any general plan element. Oakland’s safety element is no exception. The safety element establishes three broad goals which establish the overall framework for the mitigation of safety hazards in Oakland:

- 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.
- Preserve Oakland’s environmental quality by minimizing potential damage to natural resources from safety hazards.

These goals are expanded into specific policies and detailed actions. The policies and actions are grouped according to the five safety hazards examined in the element: public safety, geologic hazards, fire hazards, hazardous materials and flooding hazards. Accordingly, the policy statements are found dispersed in chapters 2-6, each of which



deals with one of the above issues. However, the policies and actions are reproduced in this section for the purpose of presenting together, for easy reference, all the policy statements in the safety element.

The policies and actions are coded according to the safety hazard to which they relate: PS for public safety, GE for geologic hazards, FI for fire hazards, HM for hazardous materials and FL for flooding hazards. Every policy is supported by several actions—detailed, implementable steps that, if feasible, the city will undertake. As shown below, each action lists the city agency, and the division within that agency, that would assume the leading role in implementing that action. (CEDA refers to the Community and Economic Development Agency, OFD to the Oakland Fire Department, OPD to the Oakland Police Department, and PWA to the Public Works Agency.) Finally, it is important to note that the actions are underlain by two assumptions. First, the actions are meant to apply only to those geographic and programmatic areas over which the City of Oakland has legal authority. Second, the actions will only be implemented by the city if they can be accomplished successfully given financial, environmental, legal, social and technological factors.

POLICY STATEMENTS RELATED TO PUBLIC SAFETY

POLICY PS-1 Maintain and enhance the city’s capacity to prepare for, mitigate, respond to and recover from disasters and emergencies.

- ACTION PS-1.1: Continue to maintain the city’s Emergency Operations Center in a fully functioning state of readiness.

► OFD OFFICE OF EMERGENCY SERVICES

- ACTION PS-1.2: Maintain and update as necessary the Oakland Standardized Emergency Management System Plan.

► OFD OFFICE OF EMERGENCY SERVICES

- 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**

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- ACTION PS-1.3: Work with hospitals and other appropriate private-sector entities and government agencies to prevent closure of emergency rooms and trauma centers in the city.
 - ▶ **OFD EMERGENCY MEDICAL SERVICES**

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- ACTION PS-1.4: Continue to collaborate with adjoining jurisdictions on the network of outdoor warning sirens, and to test the sirens on a monthly basis.
 - ▶ **OFD OFFICE OF EMERGENCY SERVICES**

-
- ACTION PS-1.5: Continue to offer community training on emergency prevention, preparedness and response as part of the CORE program.
 - ▶ **OFD OFFICE OF EMERGENCY SERVICES**

CORE: Citizens of Oakland Respond to Emergencies

POLICY PS-2 Reduce the city’s rate of violent crime, in particular the number of crime-related injuries and deaths, and the public fear which results from violent crime.

-
- ACTION PS-2.1: Conduct periodic assessments of the success of the Violence Reduction Plan, and revise the plan as necessary to continue to make progress toward achieving its goals.
 - ▶ **OPD OFFICE OF THE CHIEF OF POLICE**
 - ▶ **OPD BUREAU OF FIELD OPERATIONS**
 - ▶ **OPD BUREAU OF SERVICES**

- ACTION PS-2.2: Implement the various strategies, objectives and activities contained in the Violence Prevention Plan.

▶ AS IDENTIFIED IN THE VIOLENCE PREVENTION PLAN

- ACTION PS-2.3: Designate a staff person to conduct research and disseminate information on physical planning and design strategies that have been shown to reduce the opportunities for crime.

▶ CEDA PLANNING AND ZONING DIVISION

POLICY PS-3 Enhance the city’s capacity to prevent and respond to terrorist attacks.

- ACTION PS-3.1: Make effective use of the Urban Area Security Initiative grant to implement the critical- and high-priority objectives identified in the homeland security strategy for the Oakland/Alameda County/Contra Costa County region.

▶ OFFICE OF THE CITY ADMINISTRATOR

- ACTION PS-3.2: Contribute as appropriate to implementation of the Alameda Countywide Terrorism Response Plan, and update as necessary the city’s component of the plan, namely the Oakland Metropolitan Medical Response System Plan.

▶ OFD EMERGENCY MEDICAL SERVICES DIVISION

- ACTION PS-3.3: Continue to collaborate, develop relationships and exchange information with other local, regional, state and federal agencies and with private emergency- and utility-service providers in activities related to terrorism prevention and response.

▶ OFD OFFICE OF EMERGENCY SERVICES

POLICY STATEMENTS RELATED TO GEOLOGIC HAZARDS

POLICY GE-1 Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena.

- ACTION GE-1.1: Continue to enforce the geologic reports ordinance by requiring site-specific geologic reports for development proposals in the Hayward fault Special Studies Zone, and restricting the placement of structures for human occupancy within fifty feet of the trace.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION GE-1.2: Enact regulations requiring the preparation of site-specific geologic or geotechnical reports for development proposals in areas subject to earthquake-induced liquefaction, settlement or severe ground shaking, and conditioning project approval on the incorporation of necessary mitigation measures.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION GE-1.3: Continue to update the city's geologic-hazard mapping system based on new information from state and federal agencies and site-specific investigations.

▶ CEDA BUILDING SERVICES DIVISION

POLICY GE-2 Continue to enforce ordinances and implement programs that seek specifically to reduce the landslide and erosion hazards.

- ACTION GE-2.1: Continue to enforce provisions under the subdivision ordinance requiring that, under certain conditions, geotechnical reports be filed and soil-hazards investigations be made to prevent grading from creating unstable slopes, and that any necessary corrective actions be taken.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION GE-2.2: Continue to enforce the grading, erosion and sedimentation ordinance by requiring, under certain conditions, grading permits and plans to control erosion and sedimentation.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION GE-2.3: Continue to enforce provisions under the creek protection, storm water management and discharge control ordinance designed to control erosion and sedimentation.

▶ PWA ENVIRONMENTAL SERVICES DIVISION
▶ CEDA BUILDING SERVICES DIVISION

- ACTION GE-2.4: Consider establishing area-specific interdepartmental task forces, with public participation, to recommend changes to the zoning ordinance to better address hillside development constraints, especially steeply sloping sites and infrastructure availability.

▶ CEDA PLANNING AND ZONING DIVISION
▶ PWA ENVIRONMENTAL SERVICES DIVISION

- ACTION GE-2.5: Enact regulations requiring new development projects to employ site-design and source-control techniques to manage peak stormwater runoff flows and impacts from increased runoff volumes.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION GE-2.6: Design fire-preventive vegetation-management techniques and practices for creek-sides and high-slope areas that do not contribute to the landslide and erosion hazard.

▶ OFD SUPPORT SERVICES DIVISION

POLICY GE-3

Continue, enhance or develop regulations and programs designed to minimize seismically related structural hazards from new and existing buildings.

- ACTION GE-3.1: Adopt and amend as needed updated versions of the California building code so that optimal earthquake-protection standards are used in construction and renovation projects.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION GE-3.2: Continue to enforce the unreinforced masonry ordinance to require that potentially hazardous unreinforced masonry buildings be retrofitted or be otherwise made to reduce the risk of death and injury from their collapse during an earthquake.

▶ CEDA BUILDING SERVICES DIVISION

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- ACTION GE-3.3: Continue to enforce the earthquake-damaged structures ordinance to ensure that buildings damaged by earthquakes are repaired to the extent practicable.

▶ CEDA BUILDING SERVICES DIVISION

-
- ACTION GE-3.4: Consider developing a program to encourage, assist or provide incentives to owners of single-family homes or small apartment buildings in retrofitting their buildings for seismic safety.

▶ CEDA BUILDING SERVICES DIVISION

POLICY GE-4 Work to reduce potential damage from earthquakes to “lifeline” utility and transportation systems.

- ACTION GE-4.1: Encourage Caltrans to expedite the retrofit of city- and county-owned highway overpasses in Oakland identified as candidates for seismic strengthening for which Caltrans is the lead agency.

▶ PWA TRANSPORTATION SERVICES DIVISION

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- ACTION GE-4.2: As knowledge about the mitigation of geologic hazards increases, encourage public and private utility providers to develop additional measures to further strengthen utility systems against damage from earthquakes, and review and comment on proposed mitigation measures.

▶ PWA ELECTRICAL SERVICES DIVISION

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- ACTION GE-4.3: Encourage BART to prioritize its program for retrofitting the system’s aerial structures, stations and Transbay Tube for seismic safety over expansion of the system.

▶ PWA TRANSPORTATION SERVICES DIVISION

- ACTION GE-4.4: Continue to designate underground utility districts for the purpose of replacing aboveground electric and phone wires and other structures with underground facilities, and use the planning-approval process to ensure that all new utility lines will be installed underground from the start.

- ▶ PWA ELECTRICAL SERVICES DIVISION
- ▶ CEDA PLANNING AND ZONING DIVISION

POLICY STATEMENTS RELATED TO FIRE HAZARDS

POLICY FI-1 Maintain and enhance the city’s capacity for emergency response, fire prevention and fire-fighting.

- ACTION FI-1.1: Periodically assess the need for new or relocated fire stations and other facilities, changes in staffing levels, and additional or updated supplies, equipment, technologies and in-service training classes.

- ▶ OFD TECHNICAL SERVICES DIVISION

- ACTION FI-1.2: Strive to meet a goal of responding to fires and other emergencies within seven minutes of notification 90 percent of the time.

- ▶ OFD FIELD OPERATIONS DIVISION

- ACTION FI-1.3: Continue to offer fire-prevention and fire-safety presentations and training to the public.

- ▶ OFD FIELD OPERATIONS DIVISION
- ▶ OFD SUPPORT SERVICES DIVISION
- ▶ OFD OFFICE OF EMERGENCY SERVICES

- ACTION FI-1.4: Continue to sponsor the formation and training of CORE teams.

- ▶ OFD OFFICE OF EMERGENCY SERVICES

- ACTION FI-1.5: Continue to participate not only in general mutual-aid agreements but also in agreements with adjoining jurisdictions for cooperative response to fires.

- ▶ OFD FIELD OPERATIONS DIVISION

CORE: Citizens of Oakland Respond to Emergencies

- ACTION FI-1.6: Continue to conduct monthly tests of the alerting and warning system’s outdoor sirens, coordinating them to the extent possible with those of neighboring jurisdictions.

▶ OFD OFFICE OF EMERGENCY SERVICES

- ACTION FI-1.7: Along with the East Bay Municipal Utility District, review the extent to which recommendations from the district’s 1994 infrastructure policy study on needed improvements to the water distribution system were implemented.

▶ OFD FIELD OPERATIONS DIVISION

POLICY FI-2 Continue, enhance or implement programs that seek to reduce the risk of structural fires.

- ACTION FI-2.1: 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.

▶ CEDA BUILDING SERVICES DIVISION

▶ OFD SUPPORT SERVICES DIVISION

- ACTION FI-2.2: Continue to enforce provisions under the local housing code requiring the use of fire-resistant construction and the provision of smoke detectors and fire-extinguishing systems.

▶ CEDA BUILDING SERVICES DIVISION

▶ OFD SUPPORT SERVICES DIVISION

- ACTION FI-2.3: Continue to review development proposals to ensure that they incorporate required and appropriate fire-mitigation measures, including adequate provisions for occupant evacuation and access by fire-fighting personnel and equipment.

▶ OFD SUPPORT SERVICES DIVISION

- ACTION FI-2.4: Compile a list of 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.

▶ OFD SUPPORT SERVICES DIVISION

- ACTION FI-2.5: Continue to conduct periodic fire-safety inspections of commercial, multi-family and institutional buildings.

▶ OFD SUPPORT SERVICES DIVISION

- ACTION FI-2.6: Enforce the chapter of the municipal code regulating the location and design of street-address numbers on buildings.

▶ CEDA BUILDING SERVICES DIVISION

POLICY FI-3 Prioritize the reduction of the wildfire hazard, with an emphasis on prevention.

- ACTION FI-3.1: Implement and administer the 2004 wildfire-prevention assessment district for the Oakland Hills, and carry out the programs funded by the district, including fire-safety inspections of private properties, vegetation management practices, roving firefighter patrols on high fire-hazard days, and public education efforts.

▶ OFD SUPPORT SERVICES DIVISION

▶ OFD FIELD OPERATIONS DIVISION

▶ PWA TRANSPORTATION SERVICES DIVISION

- ACTION FI-3.2: Consistent with the city’s pedestrian master plan, develop unused pedestrian rights-of-way in the Oakland Hills as walkways to serve as additional evacuation routes, and provide and maintain lighting facilities for new and existing walkways.

▶ PWA TRANSPORTATION SERVICES DIVISION

▶ PWA ENGINEERING DESIGN DIVISION

▶ PWA ELECTRICAL SERVICES DIVISION

- ACTION FI-3.3: Continue to participate in multi-jurisdictional programs and task forces, such as the Hills Emergency Forum and Diablo FireSafe Council, that work to reduce the threat of wildfires.

▶ OFD SUPPORT SERVICES DIVISION

- ACTION FI-3.4: Along with EBMUD, review the extent to which recommendations from the utility’s district’s 1993 study on its preparation and response to the 1991 firestorm were implemented.

▶ OFD FIELD OPERATIONS DIVISION

POLICY STATEMENTS RELATED TO HAZARDOUS MATERIALS

POLICY HM-1 Minimize the potential risks to human and environmental health and safety associated with the past and present use, handling, storage and disposal of hazardous materials.

- ACTION HM-1.1: Continue to exercise unified-program responsibilities, including the issuance of permits for and inspection of certain industrial facilities, monitoring the filing of disclosure forms and risk-management plans, hazardous-materials assessment reports and remediation plans, and closure plans by such facilities.

▶ OFD OFFICE OF EMERGENCY SERVICES

- ACTION HM-1.2: Continue to enforce provisions under the zoning ordinance regulating the location of facilities which use or store hazardous materials.

▶ CEDA PLANNING AND ZONING DIVISION

▶ OFD OFFICE OF EMERGENCY SERVICES

- ACTION HM-1.3: Consider adopting a health and safety protection overlay zone or set of procedures to ensure that new activities which use or store hazardous materials on a regular basis near residential zones do not endanger public health or the environment.

▶ CEDA PLANNING AND ZONING DIVISION

- ACTION HM-1.4: Continue to participate in the Alameda County Waste Management Authority and, as a participant, continue to implement policies under the county's hazardous-waste management plan to minimize the generation of hazardous wastes.

▶ PWA ENVIRONMENTAL SERVICES DIVISION

- ACTION HM-1.5: Continue to implement the city's household hazardous-waste element (including educating residents about waste-disposal options and the consequences of illegal disposal) in order to reduce the generation of household hazardous waste and the amount of such waste that is disposed inappropriately.

▶ PWA ENVIRONMENTAL SERVICES DIVISION

- ACTION HM-1.6: Through the Urban Land Redevelopment program, and along with other participating agencies, continue to assist developers in the environmental clean-up of contaminated properties.

► PWA ENVIRONMENTAL SERVICES DIVISION

- ACTION HM-1.7: Create and maintain a database with detailed site information on all brownfields and contaminated sites in the city.

► PWA ENVIRONMENTAL SERVICES DIVISION

POLICY HM-2 Reduce the public’s exposure to toxic air contaminants through appropriate land use and transportation strategies.

- ACTION HM-2.1: Continue to enforce performance standards controlling the emission of air contaminants, particulate matter, smoke and unpleasant odors.

► CEDA BUILDING SERVICES DIVISION

- ACTION HM-2.2: Continue to discourage the development of sensitive receptors adjacent to significant sources of air contaminants and encourage industry to adopt best-available control technologies to reduce air contaminants.

► CEDA PLANNING AND ZONING DIVISION

- ACTION HM-2.3: Continue to support the efforts of the Bay Area Air Quality Management District’s air-toxics program, including the review and permitting of stationary sources, identification of emitting facilities, promulgation of categorical control measures, and monitoring and inventory of emissions.

► PWA ENVIRONMENTAL SERVICES DIVISION

- ACTION HM-2.4: Ensure implementation of policies and actions in the land use and transportation element designed to integrate land use and transportation planning and to promote alternative transportation options (see Appendix B); and policies in the open space, conservation and recreation element designed to encourage transportation alternatives and land use patterns that reduce automobile dependence (see Appendix A).

► CEDA PLANNING AND ZONING DIVISION

- ACTION HM-2.5: Review and comment on regional and state air-quality plans and also on environmental impact reports for development projects in neighboring jurisdictions; and for the latter, request mitigation measures for any significant negative impacts on the city’s air quality.

► CEDA PLANNING AND ZONING DIVISION

POLICY HM-3 Seek to prevent industrial and transportation accidents involving hazardous materials, and enhance the city’s capacity to respond to such incidents.

- ACTION HM-3.1: Continue to enforce regulations limiting truck travel through certain areas of the city to designated routes, and consider establishing time-based restrictions on truck travel on certain routes to reduce the risk and potential impact of accidents during peak traffic hours.

► PWA TRANSPORTATION SERVICES DIVISION

- ACTION HM-3.2: Continue to support the prohibition of trucks on I-580 through Oakland.

► PWA TRANSPORTATION SERVICES DIVISION

- ACTION HM-3.3: Support state and federal legislative efforts that seek to increase the safety of transporting hazardous materials.

► OFD OFFICE OF EMERGENCY SERVICES

- ACTION HM-3.4: Continue to rely on, and update, the city’s hazardous materials area plan to respond to emergencies related to hazardous materials.

► OFD OFFICE OF EMERGENCY SERVICES

- ACTION HM-3.5: Continue to offer basic emergency-response education and training to local businesses.

► OFD OFFICE OF EMERGENCY SERVICES

POLICY STATEMENTS RELATED TO FLOODING HAZARDS

POLICY FL-1 Enforce and update local ordinances, and comply with regional orders, that would reduce the risk of storm-induced flooding.

- ACTION FL-1.1: Amend, as necessary, the city’s regulations concerning new construction and major improvements to existing structures within flood zones in order to maintain compliance with federal requirements and, thus, remain a participant in the National Federal Insurance Program.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION FL-1.2: Continue to require that subdivisions be designed to minimize flood damage by, among other things, having lots and rights-of-way be laid out for the provision of approved sewer and drainage facilities, providing on-site detention facilities whenever practicable and having utility facilities be constructed in ways that reduce or eliminate flood damage.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION FL-1.3: Comply with all applicable performance standards pursuant to the 2003 Alameda countywide National Pollutant Discharge Elimination System municipal stormwater permit that seek to manage increases in stormwater run-off flows from new-development and redevelopment construction projects.

▶ PWA ENVIRONMENTAL SERVICES DIVISION

- ACTION FL-1.4: Continue to enforce the grading, erosion and sedimentation ordinance by prohibiting the discharge of concentrated stormwater flows by other than approved methods.

▶ CEDA BUILDING SERVICES DIVISION

▶ PWA ENGINEERING DESIGN DIVISION

- ACTION FL-1.5: Continue to enforce provisions under the creek protection, storm water management and discharge control ordinance designed to keep watercourses free of obstructions and protect drainage facilities.

▶ PWA ENVIRONMENTAL SERVICES DIVISION

POLICY FL-2 Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.

- ACTION FL-2.1: Continue to repair and make structural improvements to storm drains to enable them to perform to their design capacity in handling water flows.

▶ PWA ENGINEERING DESIGN DIVISION

- ACTION FL-2.2: 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.

▶ PWA SEWER AND STORM DRAIN MAINTENANCE DIVISION

- ACTION FL-2.3: Continue the “Maintain-a-Drain Campaign,” which encourages residents and businesses to keep storm drains in their neighborhood free of debris.

▶ PWA SEWER AND STORM DRAIN MAINTENANCE DIVISION

- ACTION FL-2.4: Continue to provide sandbags and plastic sheeting to residents and businesses in anticipation of rainstorms, and to deliver those materials to the disabled and elderly upon request.

▶ PWA SEWER AND STORM DRAIN MAINTENANCE DIVISION

POLICY FL-3 Seek the cooperation and assistance of other government agencies in managing the risk of storm-induced flooding.

- ACTION FL-3.1: Upon completion of new flood-control projects, request that FEMA revise its flood-insurance rate map of the city to reflect flood risks accurately.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION FL-3.2: To reduce the cost of flood insurance to property owners, work to qualify for the highest-feasible rating under the Community Rating System of the National Federal Insurance Program.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION FL-3.3: Meet annually with the Alameda County Flood Control and Water Conservation District to establish jointly the district’s capital improvement program for most effectively reducing the remaining threat of storm-induced flooding.

▶ PWA ENGINEERING DESIGN DIVISION

- ACTION FL-3.4: Encourage the ACFCWCD to continue maintaining adequately those watercourses, storm drains and other flood-control facilities for which it has legal responsibility.

▶ PWA SEWER AND STORM DRAIN MAINTENANCE DIVISION

- ACTION FL-3.5: Refer development proposals adjacent to floodways and floodplains to the ACFCWCD for its review and comment.

▶ CEDA BUILDING SERVICES DIVISION

POLICY FL-4 Minimize further the relatively low risks from non-storm-related forms of flooding.

- ACTION FL-4.1: Request from the state Division of Safety of Dams a timeline for the maintenance inspection of all operating dams in the city.

▶ OFD OFFICE OF EMERGENCY SERVICES

- ACTION FL-4.2: Review for adequacy, and update if necessary, procedures adopted by the city pursuant to the Dam Safety Act for the emergency evacuation of areas located below major water-storage facilities.

▶ OFD OFFICE OF EMERGENCY SERVICES

- ACTION FL-4.3: Inform shoreline-property owners of the possible long-term economic threat posed by rising sea levels.

▶ CEDA BUILDING SERVICES DIVISION

- ACTION FL-4.4: Stay informed of emerging scientific information on the subject of rising sea levels, especially on actions that local jurisdictions can take to prevent or mitigate this hazard.

▶ CEDA BUILDING SERVICES DIVISION