

# City of Monterey

## CAL FIRE Land Use Planning

### General Plan Safety Element Assessment Tier 2

July 26, 2016

Board of Forestry and Fire Protection



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**Purpose and Background:** The State Board of Forestry and Fire Protection (Board) is required to review and make recommendations for the safety element of general plan updates in accordance with Government Code (GC) 65302.5. The review and recommendations apply to those general plans with State Responsibility Area (SRA) (Public Resources Code (PRC) 4125) or Very High Fire Hazard Severity Zone Local Responsibility Area (VHFHSZ LRA) (GC 51177(i), PRC 4125).

The statutory requirements for the Board review and recommendations pursuant to GC 65302.5 (a)(1) and (2), and (b) are as follows:

- *“The draft elements...to the fire safety element of a county’s or a city’s general plan...shall be submitted to the Board at least 90 days prior to... the adoption or amendment to the safety element of its general plan [for each county or city with SRA or VHFHSZ].”*
- *“The Board shall... review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element....”*
- *“Prior to adoption of the draft element..., the Board of Supervisors... shall consider the recommendations made by the Board... If the Board of Supervisors...determines not to accept all or some of the recommendations..., the Board of Supervisors... shall communicate in writing to the Board its reasons for not accepting the recommendations.”*

**Methodology for Review and Recommendations:** The Board established a standardized method to review the safety element of general plans. The methodology includes 1) examining the safety element for inclusion of factors that are important for mitigation of wildfire hazard and risks, and 2) making recommendations related to these factors. The evaluation factors and recommendations below were developed using CAL FIRE technical documents and input from local fire departments.

The Tier 2 recommendations below apply to communities with

- Medium amounts of VHFHSZ Zone acreage or 10 to 20% of acreage is VHFHSZ LRA; or
- Medium population densities; or
- VHFHSZ that does not encroach on population centers or does not add significantly to contiguous high fire hazard fuels at a regional level.

The counties assigned Safety Element Assessment Tier 2 are **Colusa, Imperial, Inyo, Kings, Merced, Modoc, and Mono**. There are 48 cities, listed below, evaluated under Tier 2.

As local fuels, boundaries, populations, and other variables change throughout time, Board staff have the discretion to re-assign a jurisdiction into a lower or higher assessment tier. Staff will consider:

- Variations in population and population density; or
- Changes in proportion of land designated VHFHSZ (lower or higher); or
- Firefighting capabilities (paid, volunteer, equipment, etc) and contract changes; or

- Past planning efforts and involvement of organizations such as local Fire Safe Councils and new initiatives or efforts that have emerged over time; or
- Changes to the context of VHFHSZ within the region – does the VHFHSZ in a jurisdiction combine with neighboring fuels to create a continual pattern of very high fire risk in a way that it hadn't previously?

Cities (alphabetical by county)					
<b>Alameda</b>	<b>Monterey</b>	<b>Riverside con't</b>	<b>San Diego</b>	<b>Shasta</b>	
Berkeley	Monterey	Palm Springs	Carlsbad	Anderson	
Piedmont	<b>Orange</b>	Perris	Chula Vista	<b>Siskiyou</b>	
Pleasanton	Fullerton	Riverside	Del Mar	Etna	
<b>Calaveras</b>	Irvine	San Jacinto	El Cajon	Yreka	
Angels Camp	Laguna Woods	Temecula	Solana Beach	<b>Sonoma</b>	
<b>Los Angeles</b>	Mission Viejo	Wildomar	Vista	Santa Rosa	
Arcadia	Orange	<b>San Bernardino</b>	<b>San Luis Obispo</b>	<b>Tehama</b>	
West Covina	<b>Riverside</b>	Chino Hills	San Luis Obispo	Red Bluff	
<b>Marin</b>	Corona	Fontana	<b>Santa Clara</b>	<b>Ventura</b>	
Larkspur	Hemet	Hesperia	Morgan Hill	Camarillo	
<b>Mendocino</b>	Jurupa Valley	Rialto	San Jose	Fillmore	
Ukiah	Menifee	Upland		Ventura	
	Moreno Valley	Yucca Valley			

## Review Process and Timeline

The county/local jurisdiction and CAL FIRE Land Use Planning staff will receive and review technical guidance documents, the Board assessment, and relevant information from CAL FIRE and the Governor's Office of Planning and Research.



The county or local jurisdiction will work closely with CAL FIRE Land Use Planning staff during the development of the general plan and the safety element in particular.



**At least 90 days prior to the adoption or amendment of the General Plan:** The county or local jurisdiction will submit the safety element to the Board of Forestry & Fire Protection for review. Jurisdictions are encouraged to send safety elements to the Board prior to the 90 day statutory requirement for greater collaboration.



**No more than 60 days later:** The Board will consider staff recommendations and approve as-is or with changes at the next Board meeting. This deadline may be modified upon mutual agreement between Board staff and local jurisdictions.

# Standard List of General Plan Safety Element Recommendations

Jurisdiction: City of Monterey	Notes:	CAL FIRE Unit: San Benito Monterey	Date Received:
County: Monterey	LUPP Reviewer: FC Gene Potkey	Unit Contact: Unit Chief Brennan Blue	Date Reviewed: July 26, 2016

Please click on the appropriate box to “check” whether the plan satisfies each point. Standard recommendations are included in the checklist but please highlight or add additional comments as necessary.

## 1.0 Inter-agency Wildfire Protection Planning

1.1 General Plan references and incorporates County or Unit Fire Plan: Yes Partial No

**Recommendation:** Identify, reference or create (if necessary) a fire plan for the geographic scope of the General Plan. The General Plan should incorporate the general concepts and standards from any county fire plan, fire protection agency (federal or state) fire plan, and local hazard mitigation plan. Identify or reference the local Unit Fire Plan and, if applicable, the Community Wildfire Prevention Plan.

**Priority:** High Medium Low N/A

**Recommendation:** Ensure fire plans incorporated by reference into the General Plan contain evaluations of fire hazards, assessment of assets at risk, prioritization of hazard mitigation actions, and implementation and monitoring components.

**Priority:** High Medium Low N/A

1.2 Map or describe existing emergency service facilities and areas lacking services, specifically noting any areas in SRA or VHFHSZs. Yes Partial No

**Recommendation:** Include descriptions of emergency services including available equipment, personnel, and maps of facility locations.

**Priority:** High Medium Low N/A

**Recommendation:** Initiate studies and analyses to identify appropriate staffing levels and equipment needs commensurate with the current and projected emergency response environment. **Generally referred to as a Standards of Cover. A baseline analysis document was found at:** <http://neddimitrov.org/uploads/classes/201104NFG/student-projects/DonoCote-MontereyFire-ExecutiveSummary.pdf>

**Priority:** High Medium Low N/A

**Recommendation:** Establish goals and policies for emergency service training that meets or exceeds state or national standards.

**Priority:** High Medium Low N/A

- 1.3 Inter-fire service coordination preparedness/mutual aid and multi-jurisdictional fire service agreements.  Yes  Partial  No

**Recommendation:** Adopt the Standardized Emergency Management Systems for responding to large scale disasters requiring a multi-agency response. Ensure and review mutual aid/automatic aid and other cooperative agreements with adjoining emergency service providers.

**Priority:**  High  Medium  Low  N/A

**Additional Wildfire Protection Planning Recommendations:**

- 1.1) Incorporate **or provide reference to** the local CALFIRE San Benito Monterey Unit Strategic Fire Plan and The Monterey County Community Wildfire Protection Plan into the Safety Element (SE), so that an overall regional collaborated effort can be made to reduce the risk of wildfire. These plans identify local stakeholders, discuss the local fire environment, evaluate assets at risk, and identify priority fuel treatment areas.
- 1.2) The City's Fire Department website states the location of each fire station with assigned apparatus, however the Safety Element needs updating to reflect these changes. Consider a map overlay of essential services (Police, Fire, EMS, etc...) and their relation to natural hazard zone areas such as fire severity, flood, tsunami and seismic. A map with this information will set the ground work for contingency planning should any of the facilities are compromised by a natural disaster, and provide a visual aide for future growth and it's relation to essential services as stated in the Public Facilities Element Goal a.

Also, create a policy that will support the training needs of the fire department to maintain and improve upon current industry standards of emergency response, such as maintaining current membership in the Monterey County Fire Training Officers Association or similar organization that fulfills the training/education of the ever evolving field of fire and rescue.

**2.0 Land Use:**

- 2.1 Disclose wildland urban interface hazards including Fire Hazard Severity Zones designations and other vulnerable areas as determined by CAL FIRE or fire prevention organizations. Describe or map any Firewise Communities or other firesafe communities as determined by the National Fire Protection Association, Fire Safe Council, or other organizations.  
 Yes  Partial  No

**Recommendation:** Specify whether the entity has a Very High Fire Hazard Severity Zones (VHFHSZ) designation pursuant GC 51175 and include a map of the zones that clearly indicates any area designated VHFHSZ.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Adopt CAL FIRE recommended Fire Hazard Severity Zones including model ordinances developed by the Office of the State Fire Marshal for establishing VHFHSZ areas.

**Priority:**  High  Medium  Low  N/A

2.2 Goals and policies include mitigation of fire hazard for future development.  Yes  Partial  No

**Recommendation:** Adopt fire safe development codes to be used as standards for fire protection for new development in Very High Fire Hazard Severity Zones (VHFHSZ) within the entity's jurisdiction that meet or exceed statewide standards in 14 California Code of Regulations Section 1270 et seq and have them certified by the Board of Forestry.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Establish goals and policies for specific ordinances, or specify the current existing ordinances, code sections, or regulations, that address evacuation and emergency vehicle access; water supplies and fire flow; fuel modification for defensible space; and home addressing and signing.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Consider mitigation of previously developed areas that do not meet Title 14 California Code of Regulations Section 1270 et seq. or equivalent local ordinance.

**Priority:**  High  Medium  Low  N/A

2.3 The design and location of new development provides for adequate infrastructure for the safe ingress of emergency response vehicles and simultaneously allows civilian egress during an emergency:  Yes  Partial  No

**Recommendation:** Develop pre-plans for fire prone areas that address civilian evacuations to temporary safety locations.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Develop a policy that approval of parcel maps and tentative maps is conditional based on meeting regulations adopted pursuant to §4290 and 4291 of the Public Resources Code, particularly those regarding road standards for ingress, egress, and fire equipment access.

**Priority:**  High  Medium  Low  N/A

2.4 Fire suppression defense zones.  Yes  Partial  No

**Recommendation:** Establish goals and policies that create wildfire defense zones for emergency services, including fuel breaks or other staging areas where WUI firefighting tactics could be most effectively deployed.

**Priority:**  High  Medium  Low  N/A

2.5 Prioritizing asset protection from fire when faced with a lack of suppression forces.

Yes  Partial  No

**Recommendation:** Identify and prioritize protection needs for assets at risk in the absence of response forces.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Establish fire defense strategies (such as fire ignition resistant areas) that provide adequate fire protection without dependency on fire resources (both air and ground) and could serve as safety zones for the public or emergency support personnel.

**Priority:**  High  Medium  Low  N/A

**Additional Land Use Planning Recommendations:**

2.1) The adoption of the LRA VHFHSZ map has given The City of Monterey a local awareness of the wildland fire threat, however adoption and participation of the Monterey County Community Wildfire Protection Plan will provide a regional awareness to the wildfire threat that can impact The City of Monterey from beyond its borders.

2.2) Understanding that the city is built out, ensure that any annexation of lands with a VHFHSZ will have the applicable fire safe development codes applied by means of goals, programs and policies. Implementing Government Code (GC) 66474.02 will denote the applicable codes as well The California Building Code Chapter 7A that apply in the VHFHSZ. BOF certification of The City of Monterey's codes is not applicable.

2.3) Determine if the current evacuation map should first route civilians to evacuation centers located within the city where Community Emergency Response Team members can assist with logistic needs, accountability of citizens, information dissemination, Or to a secondary location beyond the city's borders should a large scale event warrant. If possible refrain from using evacuation routes through VHFHSZ, if that is not possible then ensure routes through the VHFHSZ have a roadway fuel management program that will serve the following purposes; protect civilians during their egress, reduce roadway ignitions or fire intensity until suppression forces arrive, and further reduce fuel continuity.

**3.0 Housing:**

3.1 Incorporation of current fire safe building codes.  Yes  Partial  No

**Recommendation:** Adopt building codes for new development in State Responsibility Areas

or incorporated areas with VHFHSZ that are based on those established by the Office of the State Fire Marshal in Title 19 and Title 24 CCR, referred to as the “Wildland Urban Interface Building Codes.”

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Ensure new development proposals contain specific fire protection plans, actions, and codes for fire engineering features for structures in VHFHSZ. Examples include codes requiring automatic sprinklers in VHFHSZ.

**Priority:**  High  Medium  Low  N/A

3.2 Consideration of diverse occupancies and their effects on wildfire protection.

Yes  Partial  No

**Recommendation:** Ensure risks to uniquely occupied structures, such as seasonally occupied homes, multiple dwelling structures, or other unique structures/owners, are considered for appropriate wildfire protection needs.

**Priority:**  High  Medium  Low  N/A

3.3 Fuel modification around homes.  Yes  Partial  No

**Recommendation:** Establish ordinances in VHFHSZ for vegetation fire hazard reduction around structures that meet or exceed the Board of Forestry and Fire Protection's Defensible Space Guidelines for SRA and the Very High Fire Hazard severity zones, including vacant lots. See [http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9\\_29\\_06.pdf](http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_06.pdf)

**Establish or identify local ordinance regarding Fuel modification or property clearance requirements similar to the PRC 4291 requirements.**

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Reduce fuel around **proposed and existing** communities and subdivisions, considering fuels, topography, weather (prevailing winds and wind event specific to the area), fire ignitions and fire history.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Include policies and recommendations that incorporate fire safe buffers and greenbelts as part of the development planning. Ensure that land uses designated near high or very fire hazard severity zones are compatible with wildland fire protection strategies/capabilities.

**Priority:**  High  Medium  Low  N/A

3.4 Identification and actions for substandard fire safe housing and neighborhoods relative to fire hazard area.  Yes  Partial  No

**Recommendation:** Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative

hazards in VHFHSZ or SRA by fire hazard zone designation.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Identify plans and actions to improve substandard housing structures and neighborhoods. Plans and actions should include structural rehabilitation, occupancy reduction, demolition, reconstruction, neighborhood-wide fuels hazard reduction projects, community education, and other community based solutions.

**Priority:**  High  Medium  Low  N/A

3.5 Assessment and projection of future emergency service needs.  Yes  Partial  No

**Recommendation:** Ensure new development includes appropriate facilities, equipment, personnel and capacity to assist and support wildfire suppression emergency service needs. Future emergency service needs should be:

- Established consistent with state or national standards.
- Developed based on criteria for determining suppression resource allocation that includes elements such as identified values and assets at risk, ignition density, vegetation type and condition, as well as local weather and topography.
- Local Agency Formation municipal services reviews for evaluating level of service, response times, equipment condition levels and other relevant emergency service information.

**Priority:**  High  Medium  Low  N/A

**Additional Housing/Structures and Neighborhoods Recommendations:**

3.2) Identification of these occupancies will aide in a similar manner related to recommendation 2.5 of the Land Use Section.

3.3) Consult with your local fire expert and urban forester to determine advantageous locations and mitigation measure to implement fire safe buffers. Also, should annexation take place in the VHFHSZ and development ensues consider reinstating Program c.1.1. of the Housing Element and restating it to include subdivisions. Coordinate the locations of open spaces with your local fire expert for the purposes of fire buffers, safe refuge areas or strategic fire attack points.

3.4) During the process of conducting hazardous fuel reduction compliance inspections(PRC 4291), also identify existing nonconforming building construction specific to codes that apply in the VHFHSZ, this is an opportunity to educate the property owner to current building standard requirements due to their location in the VHFHSZ. Also, determine if Housing Element Program d.1.2. would be available to those property owners for rehabilitation loans or grants that do not meet code. Restate Program d.2.4. of the Housing Element to include brush clearance in the VHFHSZ as required by Public Resource Code 4291.

**4.0 Conservation and Open Space:**

4.1 Identification of critical natural resource values relative to fire hazard areas.  Yes  Partial  No

**Recommendation:** Identify critical natural resources and other “open space” values within the geographic scope of the General Plan.

**Priority:**  High  Medium  Low  N/A

4.2 Inclusion of resource management activities to enhance protection of open space and natural resource values.  Yes  Partial  No

**Recommendation:** Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Establish goals and policies for reducing the wildland fire hazards within the entity’s boundaries and, with the relevant partners, on adjacent private wildlands, federal lands, vacant residential lots, and greenbelts with fire hazards that threaten the entity’s jurisdiction.

**Priority:**  High  Medium  Low  N/A

4.3 Integration of open space into fire safety effectiveness.  Yes  Partial  No

**Recommendation:** Establish goals and policies for incorporating systematic fire protection improvements for open space. Specifics policies should address fire mitigation planning with agencies/private landowners managing open space adjacent to the General Plan area, water sources for fire suppression, and other fire prevention and suppression needs.

**Priority:**  High  Medium  Low  N/A

**Additional Conservation and Open Space Recommendations:**

4.1) Determine the location of natural resources mentioned in Policies d.3 through Program d.6.3 of the Conservation Element and their relation to the VHFHSZ, and create a policy or a referenced separate document that can address protection from wildfire, if feasible, or the rehabilitation of sensitive habitats.

4.2) 90% of wildland fires are human caused. Continued defensible space inspections will aide in reducing unwanted fires that extended from a structure to open spaces. Also, create a policy that will support the rotating greenbelt maintenance program that is mentioned on the city’s Trees & Urban Forestry page.

4.3) See comments for recommendation 3.3 of the Housing Section.

**5.0 Circulation:**

5.1 Adequate access to high hazard wildland/open space areas. Yes Partial No

**Recommendation:** Establish goals and policies for adequate access in Very High Fire Hazard Severity Zones that meet or exceed standards in Title 14 CCR 1270 for lands with no structures, and maintain conditions of access in a suitable fashion for suppression access or public evacuation.

**Priority:** High  Medium  Low N/A

5.2 Incorporate a policy that provides for a fuel maintenance program along roadways and **identify the agency having jurisdiction**. Yes Partial No

**Recommendation:** Develop an adaptive vegetation management plan that considers fuels, topography, weather (prevailing winds and wind event specific to the area), fire ignitions and fire history.

**Priority:** High  Medium  Low N/A

5.3 Emergency response barriers. Yes Partial No

**Recommendation:** Identify goals and policies that address vital access routes that if removed would prevent fire fighter access (bridges, dams, etc.). Develop an alternative emergency access plan for these areas.

**Priority:** High  Medium  Low N/A

5.4 Adequacy of existing and future transportation system to incorporate fire infrastructure elements. Yes Partial No

**Recommendation:** Establish goals and policies for proposed and existing transportation systems to facilitate fire infrastructure elements such as turnouts, helispots and safety zones.

**Priority:** High  Medium  Low N/A

**Additional Circulation and Access Recommendations:**

5.1) All Open Spaces within the city boundaries are surrounded by a road network.

5.3) When feasible with new development require the connecting of adjacent dead-end roads to create secondary ingress and egress points for responders and evacuees.

**6.0 Post Fire Safety, Recovery and Maintenance:**

The post fire recommendations address an opportunity for the community and landowners to re-evaluate land uses and practices that affect future wildfire hazards and risk. They also provide for immediate post-fire life and safety considerations to mitigate potential losses to life, human assets and critical natural resources.

6.1 Develop post-fire priorities and goals for the recovery of the built and natural environments.  Yes  Partial  No

**Recommendation:** Reevaluate hazardous conditions and provide for future fire safe conditions. Evaluate redevelopment in high or very high fire hazard severity zones.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Restore sustainable landscapes and restore functioning ecosystems. Incorporate wildlife habitat/endangered species considerations.

**Priority:**  High  Medium  Low  N/A

**Recommendation:** Provide polices and goals for maintenance of the post-fire-recovery projects, activities, or infrastructure.

**Priority:**  High  Medium  Low  N/A

6.2 Post fire life and safety assessments.  Yes  Partial  No

**Recommendation:** Develop frameworks for rapid post-fire assessment and project implementation to minimize flooding, protect water quality, limit sediment flows and reduce other risks on all land ownerships impacted by wildland fire.

**Priority:**  High  Medium  Low  N/A

**Additional Post Fire Safety, Recovery and Maintenance Recommendations:**

6.2) Ensure that plans take into account the steep slopes of the adjacent study area depicted in Map 12 of the General Plan that are adjacent to the city's boundaries.

**Additional Recommendations:**

Just as GC 51175 states that wildfires ignore civil boundaries, the topic of wildfire is not confined to the Safety Element. Upon the next amendment or update to the Safety Element create references to the other elements of the General Plan that relate to wildfire, this will ensure internal consistency among the elements without having to dedicate a large portion of the Safety Element to the topic of wildfire. Additionally, incorporate by reference other documents that address wildfire into the Safety Element such as a Local Hazard Mitigation Plan or fire department operations guides that discuss prevention and suppression measures.

Also, include the information requested of GC 65302(g) (3) (A thru D).

# Safety Element

## Introduction

The purposes of the Safety Element are: (1) identify and describe the nature of potential hazards within the planning area, and (2) streamline the environmental impact reporting process by using this element as a guide to the level of detail and types of environmental data needed. The pertinent areas examined in this element are: seismic, geologic, flood, fire, aircraft, criminal, and emergency preparedness.

There is no such thing as a hazard-free environment. Natural and man-made hazards of some kind and degree are always present. Efforts can be undertaken, however, to reduce the consequences of known hazards and to minimize injury and damage to property. Appropriate land use planning policies for potential environmental hazards will have a strong emphasis on personal safety and judgments of how much risk or damage to property is acceptable. The first step is recognizing the presence of potential hazards. The second step is evaluating the severity and frequency, as well as the characteristics of the area involved. This evaluation may require considerable effort and should also take into account the cost/benefit ratio of reducing or minimizing the hazard.

## Goals and Policies

### a. Seismic Hazards

Earthquake activity can be expected in the future from active or potentially active faults. The State General Plan Guidelines recommend that the City review a number of data sources prior to preparing the Safety Element. The 1972 Alquist-Priolo Earthquake Fault Zoning Act maps do not identify any hazard area within the City.

The geology report for the 1983 General Plan identified portions of the potentially active Navy, Berwick Canyon, and Chupines faults within the City's planning area. Geologic reports for the 2000 Monterey County General Plan update show only the Chupines Fault. There is another study underway sponsored by USGS investigating the San Gregorio fault partially located within the Monterey Bay. 1994 maps prepared for the National Earthquake Hazards Reduction Program show a series of potential faults.

The State Geologist is currently preparing maps to identify hazards from potential ground shaking, liquefaction, earthquake-triggered landslide and other identifiable earthquake related hazards in compliance with the Seismic Hazards Mapping Act. These are expected to be the definitive seismic maps, but they have not yet been published for Monterey. The General Plan policies anticipate the final adoption of the Seismic Hazards Mapping Act maps and subsequent mapping.

Unreinforced masonry buildings (generally brick, adobe, stone, and concrete buildings without reinforcement) are a potential hazard in an earthquake. The City has adopted a seismic retrofit ordinance requiring a report on all identified unreinforced masonry buildings. The City has worked with owners to achieve seismic strengthening, and many unreinforced masonry buildings have now been reinforced. Several historic buildings have been reinforced using the City's historic grants program. This ordinance does not absolutely require reinforcement because an

inflexible requirement has led to demolition of historic buildings in other cities.

The 1994 maps show a potential fault under the Highway 1/Holman Highway interchange, raising the issue that an earthquake could damage one of the two access routes to the Community Hospital of the Monterey Peninsula.

**Goal a.** Evaluate seismic safety when reviewing development applications and land uses.

**Policy a.1.** Potentially active faults should be treated the same as active faults until detailed geotechnical data is submitted demonstrating to the City's satisfaction that a fault is not active.

**Policy a.2.** Engineering and geologic investigations should be undertaken for proposed projects within high and moderate seismic hazard zones before approval is given by the City. The entire City is currently within seismic hazard zone IV and these studies are required for almost all new construction except very minor additions.

**Policy a.3.** Lands within 660' of identified faults should be treated as having high seismic hazard until an acceptable geotechnical investigation indicates they should be treated otherwise.

**Policy a.4.** Structures for human occupancy and critical facilities should be set back a safe distance (as determined by geotechnical analysis) from precisely located active and potentially active faults.

**Policy a.5.** Consider combining hazard areas with other areas not suitable for development and incorporating them into an open space system for public enjoyment.

**Policy a.6.** Continue seismic retrofit of unreinforced masonry buildings.

**Policy a.7.** Investigate, provide, and improve alternative routes for access to the Community Hospital of the Monterey Peninsula.

**b. Geological Hazards**

Landslides are the major geologic hazard in the planning area. This type of hazard occurs mostly in steep hillside areas. Damage to structures from landslides can range from slight to total destruction. Damage can be reduced by such alternatives as avoidance, removal, or permanent stabilization of slide masses. Landslide damage can be avoided by simply leaving hazardous areas undeveloped. Small landslides may also be totally removed with the soil used elsewhere as compacted fill.

**Goal b.** Minimize landslide hazards by locating development away from steep slopes and by requiring excellent grading practices.

**Policy b.1.**

- A) Prohibit development on slopes over 25% on new lots that are created to provide new building sites.
- B) Prohibit new development on slopes over 25% grade on existing lots of record and only allow minimal encroachment into 25% or greater slope as determined by the Planning Commission. Discourage and only consider such development when it is designed and

located to minimize impacts to adjoining property and public right-of-way that could occur due to inadequate grading and drainage control, visual appearance and removal of trees and vegetation. The Planning Commission shall determine that the amount and location of 25% slope area so severely restricts the development potential of the lot that prohibiting development on 25% slope deprives such property of privileges enjoyed by other similar property that an exception to this prohibition is warranted.

- C) Development is prohibited within active landslide areas unless proven safe or desirable to the City's satisfaction.

**Policy b.2.** Minimize grading in hillside areas.

**Program b.2.1.** Limit permits for major grading operations until development plans have been approved by the City and improvement bonds have been posted.

**Program b.2.2.** Permit grading operations only in areas scheduled for immediate construction or paving.

**Policy b.3.** Minimize cutting and removal of vegetation during grading operations.

**Policy b.4.** Require developers to submit slope stabilization plans along with any required grading plans. These slope stabilization plans shall include a complete description of the existing vegetation, the vegetation to be removed and the method of its disposal, the vegetation to be planted, and slope stabilization measures.

**Policy b.5.** Plant and protect all manufactured slopes, other than those constructed in rock, from the effects of storm runoff erosion within 30 days of the completion of final grading.

**Policy b.6.** Provide drainage and soil protection for all exposed soil and partially completed roads between October 15 and April 15.

**c. Flood Hazards**

Storms in the planning area have brought flooding, landslides, gale winds, high seas, falling trees and limbs, and power blackouts. These occurrences are not annual and are usually no more than a nuisance.

**Goal c.** Protect against flood hazards from the bay, lakes, and streams.

**Policy c.1.** Consider and mitigate the potential hazards from storm waves, tsunamis, high tidal conditions and flooding for projects along the bay shoreline.

**Program c.1.a.** Review all development proposals planned for areas within a 100-year flood hazard zone consistent with FEMA National Flood Insurance Program (NFIP) standards. Development proposed within these areas must be mitigated as needed to ensure conformance with NFIP standards.

**Policy c.2.** Design storm drainage systems to accommodate projected uses before those uses are developed.

**Policy c.3.** Protect and maintain drainage channels to keep them clear of silt and debris while protecting habitat as much as possible.

**Policy c.4.** Design projects to: (1) maximize the amount of natural drainage that can be percolated into the soil, and (2) minimize direct overland runoff onto adjoining properties, water courses, and streets. This approach to handling stormwater reduces the need for costly storm drainage improvements, which are often miles downstream. Building coverage and paved surfaces must be minimized and incorporated within a system of porous pavements, ponding areas, and siltation basins.

**d. Fire**

Fire, regardless of size or location, presents a threat to life and property until it is confined or extinguished. Confinement of the fire is most effectively achieved by using built-in fire protection (i.e., automatic sprinklers, limitation of structural areas, use of fire retardant materials, and limitation of fire fuel quantity). In addition, it is necessary to provide clear and safe access for emergency vehicles.

**Goal d.** Minimize the loss of life and property from fire.

**Policy d.1.** Achieve the greatest practical level of built-in fire protection to confine fires.

**Policy d.2.** Achieve effective emergency access to all developments, installations, and fire protection equipment for emergency apparatus and for evacuation.

**Program d.2.1.** Discourage all dead end roads and cul-de-sacs longer than 700 feet.

**Program d.2.2.** Encourage alternative second access roads as emergency access for roads greater than 700 feet in length.

**Program d.2.3.** Locate all installations or processes considered hazardous in the safest possible areas or on individual parcels.

**Program d.2.4.** In hazardous fire areas, require fire retardant roofing and access to steep lots, and consider brush clearance and planting of non-flammable vegetation.

**Policy d.3.** Maintain a cost-effective, high level of fire protection service.

**Policy d.4.** Continue to work with fire protection agencies that provide fire service to unincorporated areas through mutual aid. Encourage those areas that desire fire protection services which are beyond “outside legitimate mutual aid” to annex to the City of Monterey for fire protection services instead of using contractual or automatic aid agreements.

**Policy d.5.** Cooperate with fire protection agencies to obtain and maintain mutual aid agreements that will augment the City’s fire protection services. Continue mutual aid with the California Department of Forestry that obtain adequate aid for larger, open-range type fires involving brush, trees and grass that require specialized tactics and equipment.

**Policy d.6.** Work with Cal-Am to ensure adequate water pressure for fire fighting.

**e. Airport**

The risk of aircraft accidents is an important consideration in planning around the Monterey Peninsula Airport. The areas of greatest concern are the areas under the approaches to the runways.

**Goal e.** Maximize aviation safety on and adjacent to the Monterey Airport.

**Policy e.1.** Support safety improvements to the Monterey Peninsula Airport and adjacent areas.

**Program e.1.1.** Review proposed buildings to ensure compliance with Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace.

**Policy e.2.** Continue to work with the airport district through a fire mutual aid agreement.

**Policy e.3.** Require clean up of groundwater contamination from Airport properties.

**Policy e.4.** In collaboration with the Monterey Peninsula Airport District, review projects that may pose risks to the safe operation of the Monterey Peninsula Airport and mitigate such impacts through the development review process.

**Policy e.5.** Develop airport compatibility policies.

**Policy e.6.** Promote compatible land uses around the airport consistent with the airport safety zones.

**f. Crime**

Areas of high crime potential, such as parking lots, outdoor recreation spaces, elevator lobbies, and stairways should be identified and designed for maximum visual exposure when not conflicting with urban design policies on the screening of areas such as parking lots.

**Goal f.** Maintain a high level of police protection in keeping with the City's needs.

**Policy f.1.** Encourage project designers to provide adequate sight lines into residential areas often susceptible to criminal activity while maintaining a high aesthetic quality and neighborhood compatibility.

**Policy f.2.** Encourage occupants in residential areas to organize Neighborhood Watches to prevent crimes against neighbors, and to institute rapid reporting procedures.

**Policy f.3.** Continue to cooperate and coordinate with county and state agencies in providing police services within the community.

**g. Hazardous Materials**

**Goal g.** Review all applications for discretionary projects to evaluate proposed uses of hazardous materials. Require that projects which propose the use, handling, storage, transportation, and/or disposal of hazardous material incorporate actions to minimize hazards to public health and

safety from such use and conform to the County of Monterey Environmental Health Department requirements for reporting and management of such materials.

**h. Emergency Preparedness**

The City has developed a broad-based program to respond to potential emergencies, including training for City staff and residents so that each neighborhood may have trained emergency response personnel.

**Goal h.** Ensure prompt and effective services to cope with local emergencies.

**Policy h.1.** Continue to provide high quality fire, police, and emergency medical services.

**Policy h.2.** Continue to develop emergency plans to respond to large-scale natural or man-made disasters, such as fires, earthquakes, floods, nuclear attack, terrorist attack, or releases of hazardous materials.

**Policy h.3.** Continue emergency planning and preparation in cooperation with Monterey County, neighboring cities, and other agencies.

**Policy h.4.** Work with the Presidio of Monterey to allow emergency access through the Presidio. This access should include both emergency vehicles and resident evacuation.

**Policy h.5.** Continue to work with Monterey citizens in the Community Emergency Response Team (CERT) program to maintain citizen readiness in an emergency.

**Policy h.6.** Maintain community evacuation shelter and emergency plans.

**Figure 11, Showing Seismic Hazards**

**Figure 12, Showing Steep Slopes**

**Figure 13, Showing Flood Zones**

**Figure 14, Showing Fire Hazards**

**Figure 15, Showing Evacuation Routes**

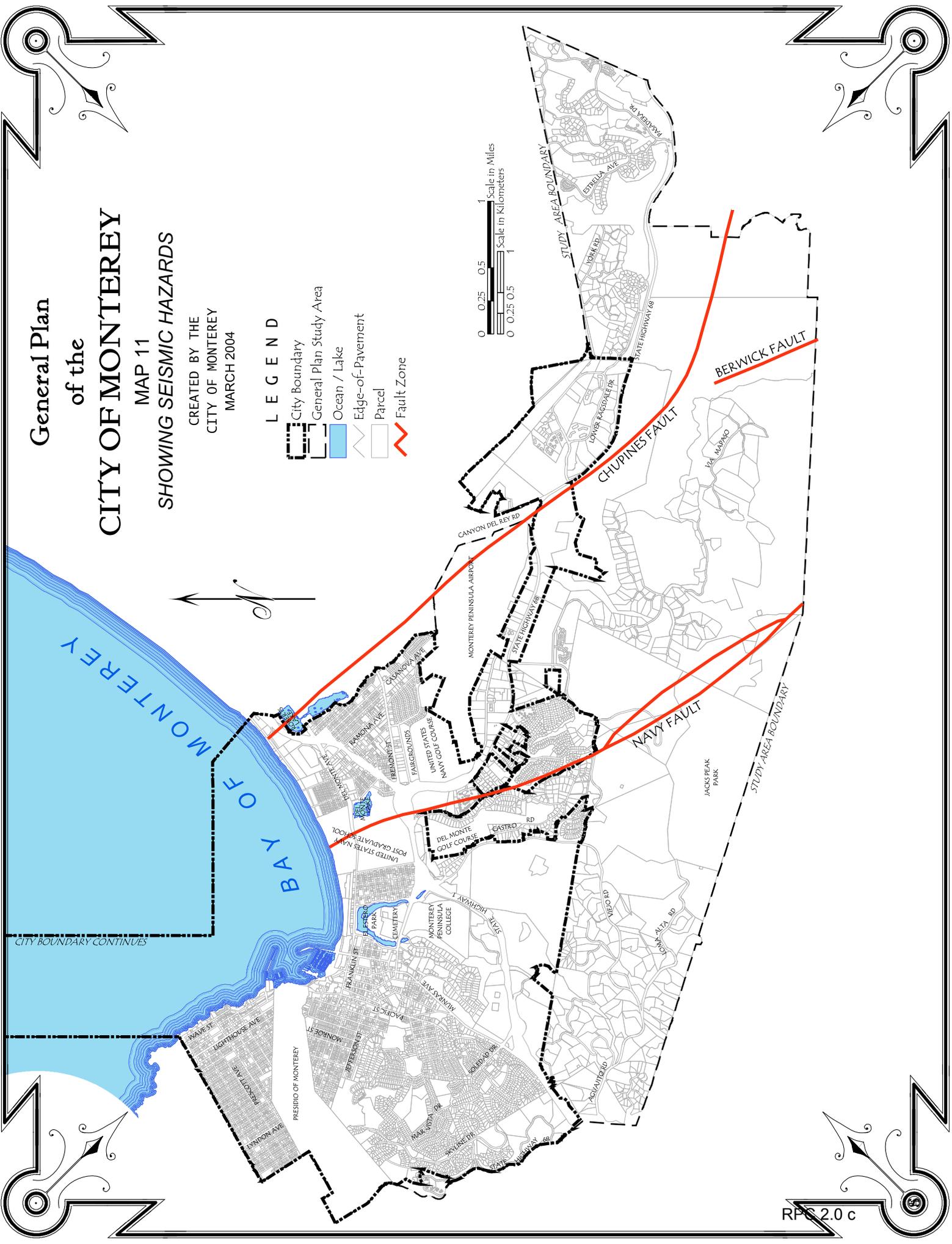
# General Plan of the CITY OF MONTEREY

## MAP 11 SHOWING SEISMIC HAZARDS

CREATED BY THE  
CITY OF MONTEREY  
MARCH 2004

### LEGEND

-  City Boundary
-  General Plan Study Area
-  Ocean / Lake
-  Edge-of-Pavement
-  Parcel
-  Fault Zone





# General Plan of the CITY OF MONTEREY

## Map 13

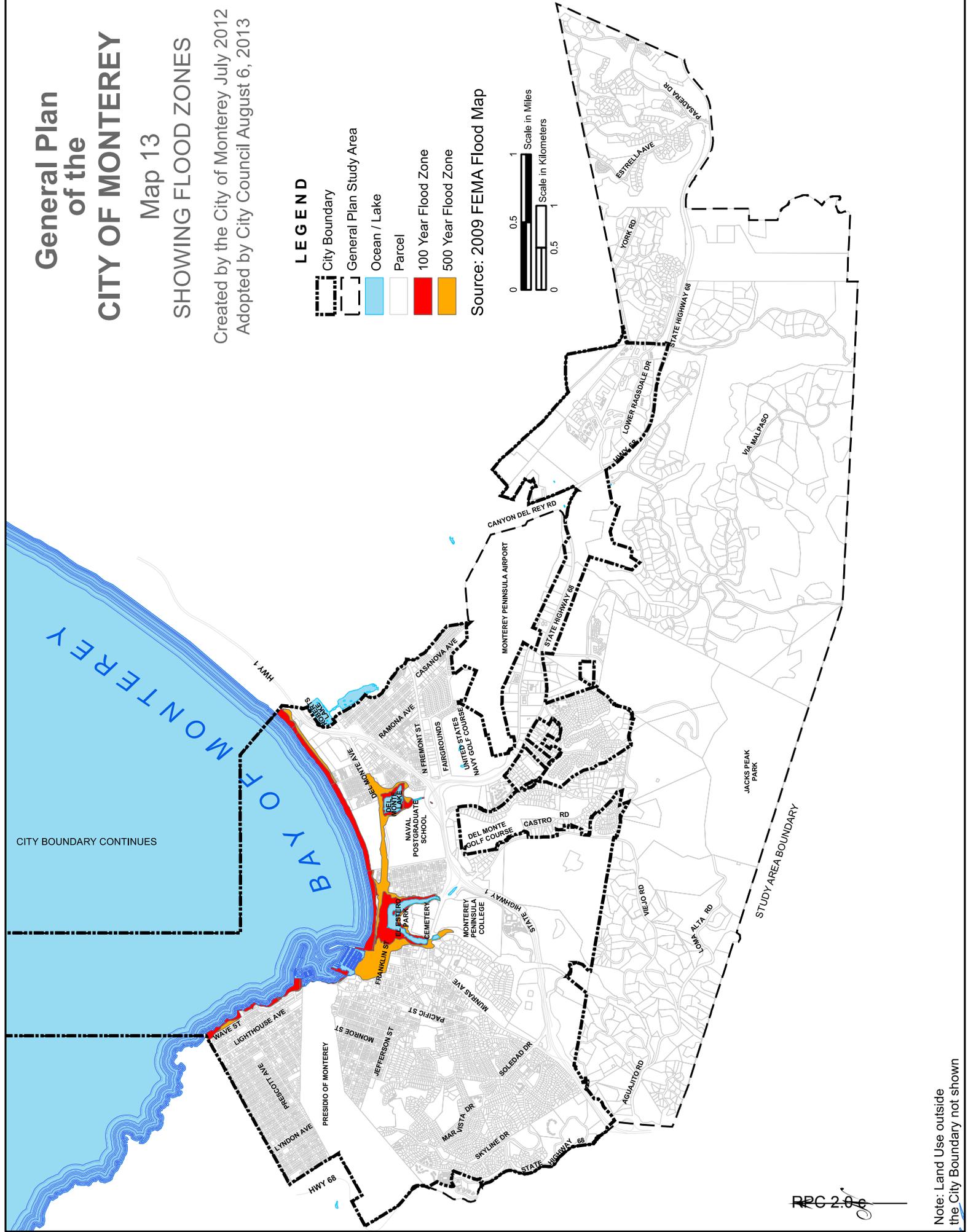
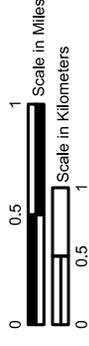
### SHOWING FLOOD ZONES

Created by the City of Monterey July 2012  
Adopted by City Council August 6, 2013

#### LEGEND

-  City Boundary
-  General Plan Study Area
-  Ocean / Lake
-  Parcel
-  100 Year Flood Zone
-  500 Year Flood Zone

Source: 2009 FEMA Flood Map



RPC 2.06

Note: Land Use outside the City Boundary not shown

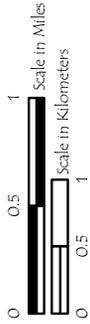
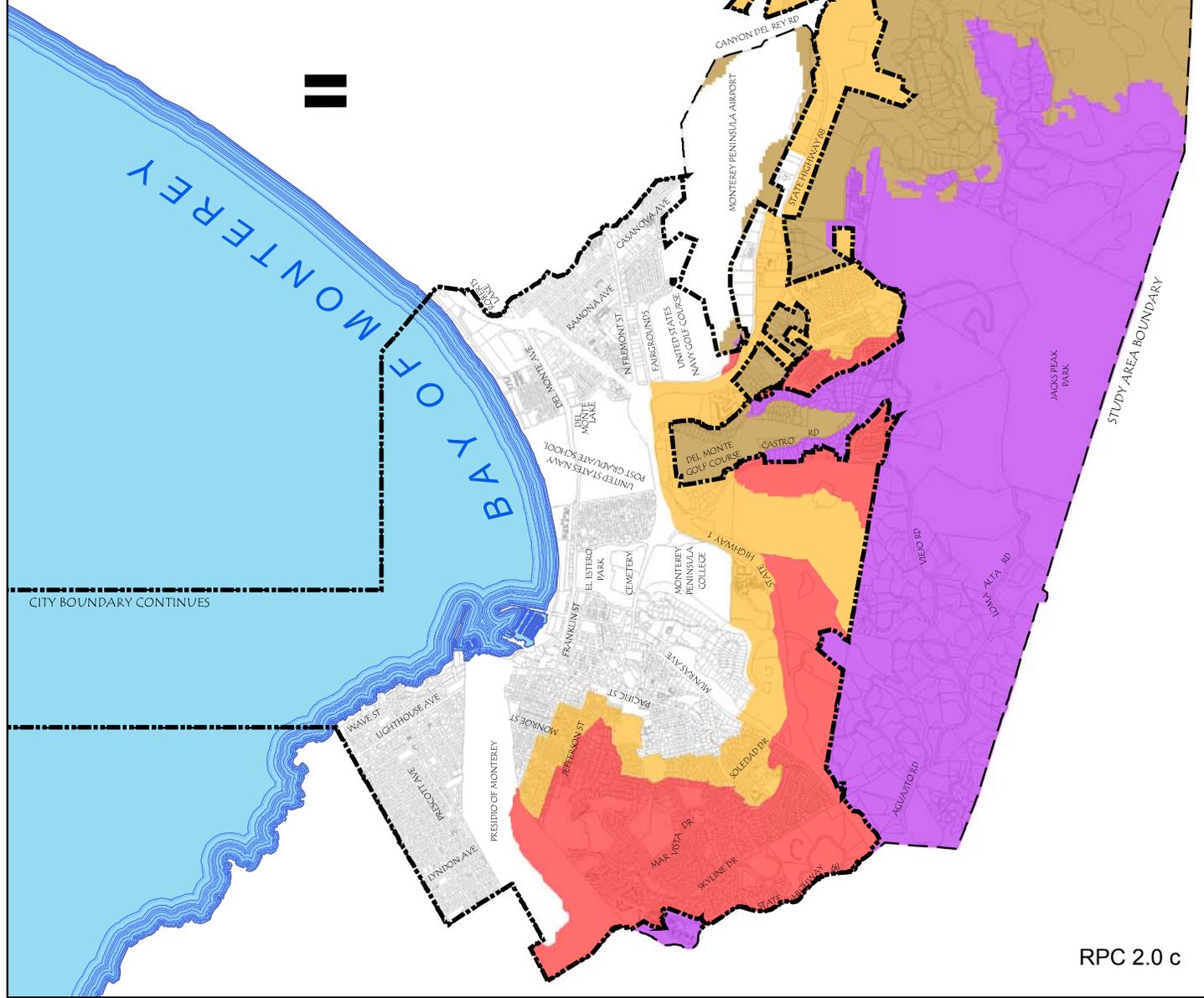
# General Plan of the CITY OF MONTEREY

## Map 14 SHOWING FIRE HAZARD SEVERITY ZONES

Created by the  
CITY OF MONTEREY  
March 2009

### LEGEND

-  City Boundary
-  General Plan Study Area
-  Ocean / Lake
-  Parcel
-  High Hazard
-  Very High Hazard
-  Outside City High Hazard
-  Outside City Very High Hazard



General Plan  
of the  
**CITY OF MONTEREY**

MAP 15  
SHOWING EVACUATION ROUTES

CREATED BY THE  
CITY OF MONTEREY  
MARCH 2004

Evacuation Plan 1: Highway 1 Northbound  
Evacuation Plan 2: Highway 68 Eastbound (Garden Rd. or Agujito Rd access to Hwy. 68)  
Evacuation Plan 3: Highway 1 Southbound to Carmel Valley Road  
Evacuation Plan 4: Highway 1 Southbound to Cambria

**LEGEND**

- City Boundary
- General Plan Study Area
- Ocean / Lake
- All other values
- Access to Evacuation Route
- Edge-of-Pavement
- Parcel

