

## ***AB 162 and SB 1241 Amendment to the Safety Element***

*New sections are underlined, deleted sections are shown as ~~struckthrough~~ and the ... denotes text remaining in place.*

### **VI. SAFETY ELEMENT**

#### **I. INTRODUCTION**

##### **A. PURPOSE**

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##### **B. AUTHORITY**

###### **1. Safety**

Government Code Section 65302: ~~(e)~~

(1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland ~~fires~~ and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards. ~~Prior to the period review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the Division of Mines and Geology of the Department of Conservation and the Office of Emergency Services for the purpose of including information known by and available to the department and the office required by this subdivision.~~

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

- (i) Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency (FEMA). The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.
- (ii) National Flood Insurance Program maps published by FEMA.
- (iii) Information about flood hazards that is available from the United States Army Corps of Engineers.
- (iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.
- (v) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

- (vi) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.
  - (vii) Maps of levee protection zones.
  - (viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.
  - (ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.
  - (x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.
  - (xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.
- (B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:
- (i) Avoiding or minimizing the risks of flooding to new development.
  - (ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.
  - (iii) Maintaining the structural and operational integrity of essential public facilities during flooding.
  - (iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.
  - (v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.
- (C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) Upon the next revision of the housing element on or after January 1, 2014, the safety element shall be reviewed and updated as necessary to address the risk of fire for land classified as state responsibility areas, as defined in Section 4102 of the Public Resources Code, and land classified as very high fire hazard severity zones, as defined in Section 51177. This review shall consider the advice included in the Office of Planning and Research's most recent publication of "Fire Hazard Planning, General Technical Advice Series" and shall also include all of the following:

- (A) Information regarding fire hazards, including, but not limited to, all of the following:
  - (i) Fire hazard severity zone maps available from the Department of Forestry and Fire Protection.
  - (ii) Any historical data on wildfires available from local agencies or a reference to where the data can be found.
  - (iii) Information about wildfire hazard areas that may be available from the United States Geological Survey.
  - (iv) General location and distribution of existing and planned uses of land in very high fire hazard severity zones and in state responsibility areas, including

structures, roads, utilities, and essential public facilities. The location and distribution of planned uses of land shall not require defensible space compliance measures required by state law or local ordinance to occur on publicly owned lands or open space designations of homeowner associations.

(v) Local, state, and federal agencies with responsibility for fire protection, including special districts and local offices of emergency services.

(B) A set of goals, policies, and objectives based on the information identified pursuant to subparagraph (A) for the protection of the community from the unreasonable risk of wildfire.

(C) A set of feasible implementation measures designed to carry out the goals, policies, and objectives based on the information identified pursuant to subparagraph (B) including, but not limited to, all of the following:

(i) Avoiding or minimizing the wildfire hazards associated with new uses of land.

(ii) Locating, when feasible, new essential public facilities outside of high fire risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in a state responsibility area or very high fire hazard severity zone.

(iii) Designing adequate infrastructure if a new development is located in a state responsibility area or in a very high fire hazard severity zone, including safe access for emergency response vehicles, visible street signs, and water supplies for structural fire suppression.

(iv) Working cooperatively with public agencies with responsibility for fire protection.

(D) If a city or county has adopted a fire safety plan or document separate from the general plan, an attachment of, or reference to, a city or county's adopted fire safety plan or document that fulfills commensurate goals and objectives and contains information required pursuant to this paragraph.

(4) After the initial revision of the safety element pursuant to paragraphs (2) and (3), upon each revision of the housing element, the planning agency shall review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

(5) Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met.

(6) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the agency, and the board required by this subdivision.

To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

~~At least 45 days prior to adoption or amendment of the safety element, each county and city shall submit to the Division of Mines and Geology of the Department of Conservation one copy of a draft of the safety element or amendment and any technical studies used for developing the safety element. The division may review drafts submitted to it to determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to this subdivision. The legislative body shall consider the division's findings prior to final adoption of the safety element or amendment unless the division's findings are not available within the above prescribed time limits or unless the division has indicated to the city or county that the division will not review the safety element. If the division's findings are not available within those prescribed time limits, the legislative body may take the division's findings into consideration at the time it considers future amendments to the safety element. Each county and city shall provide the division with a copy of its adopted safety element or amendments. The division may review adopted safety elements or amendments and report its findings. All findings made by the division shall be advisory to the planning agency and legislative body.~~

## 2. Seismic Safety

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## II. EXISTING CONDITIONS

### A. GEOLOGY

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### B. SEISMIC HAZARDS

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### C. GEOLOGICAL HAZARDS

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### S-1 Figure 1: Baymud

### D. FIRE HAZARDS

The major fire hazard areas within Hercules are the open space areas [directly adjacent to homes](#). The open spaces include brush and grass covered hills and forested areas. The blue gum Eucalyptus trees are particularly flammable. ~~As the City grows and develops with more open spaces, the~~

potential for wildland fires will increase. The City works with the local Hercules-Rodeo Fire District to assist with annual maintenance to reduce local fire hazards.

The California Department of Forestry and Fire Protection (CAL FIRE) maps areas of significant fire hazards in the state. These areas are identified based on weather, topography, fuels, and other factors. Fire hazards are greatest in areas with steep slopes, volatile vegetation, and windy conditions.

Figure S-2 (Fire Hazard Areas) shows fire hazard severity zones in the vicinity of Hercules. Land adjacent to the City limits and some land located within the City's Sphere of Influence are designated with a high fire hazard severity zone in the State Responsibility Area (SRA). No land within the incorporated areas of the City has been identified within Local or State Responsibility Areas for fire hazards.

Limited active uses are located within these designated areas. Most of the area is preserved as open space used for cattle grazing. A small portion of the area contains limited industrial uses associated with a carbon factory.

## **1. Fire Service**

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## E. LAND USE AND CIRCULATION

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## F. FLOOD HAZARDS

Potential causes of flooding in the City include:

- High tides and storm waves
- Creek overflows
- Standing water from excess rainfall

### 1. High Tides and Storm Waves

The City's northwest land area is adjacent to San Pablo Bay. Potential flood hazards associated with high tides and storm waves are concentrated at the confluence of the Bay and two creeks, Pinole Creek and Refugio Creek.

Pinole Creek, between San Pablo Avenue and the Bay is a tidal waterway ~~which has been~~ that was improved channelized and realigned by the U.S. Army Corps of Engineers in 1965. The Pinole Creek Watershed Vision Plan was prepared in 2014 to document the vision for restoration of the creek to a more natural state. A portion of the Vision Plan was implemented in 2010, with the Pinole Creek Habitat Restoration demonstration project, located between the Pinole Creek mouth and Interstate-80. The City of Hercules also plans to restore the Chelsea Wetlands, adjacent to Pinole Creek comprised of five acres of degraded seasonal wetlands, into functioning tidal wetlands. These improvement projects are intended to both restore wetland aquatic and transitional habitat while preserving and expanding flood conveyance and water storage capacity.

A large portion of Refugio Creek nearest San Pablo Bay has not been improved, thus remaining susceptible to flooding. High tides and storm-driven waves occurring together could overtop embankments and flood low-lying coastal areas. To address this issue, restoration of Refugio Creek from its confluence with San Pablo Bay to approximately 1,500 feet upstream is anticipated to begin in 2015. As part of the work associated with construction of the Bayfront Bridge/Intermodal Transit Center, Refugio Creek is being realigned and the creek channel into San Pablo Bay will be dredged to improve flow during heavy rain events and high tides.

### 2. Creek Overflows

When the surface runoff exceeds the capacity of the creek channel to carry the flow, creek overflows result. Pinole and Rodeo Creeks drain relatively small portions of the City while the drainage basin of Refugio Creek covers most of the City and extends well beyond the City boundary to the east. Pinole and Rodeo Creeks are adjacent to the northern and southern City boundaries and drain the neighboring communities of Pinole and Rodeo.

Flood Insurance Rate Maps (FIRMs), which are prepared by the Federal Emergency Management Agency (FEMA), identify potential flood zones (Figure S-3). Flood hazards related to storm events generally are described in terms of a 100-year or 500-year flood. A 100-year flood is defined as a major flood event that has a one percent or greater chance of occurring during any one year. Flood hazard planning practices address such storms, as well as 500-year events. These floods are considered severe; however, such flood events can be reasonably predicted and therefore reasonably mitigated. No areas with the City or Sphere of Influence have been identified within 500-year flood hazard areas. However, certain areas of the city (generally adjacent to creeks) have been identified to be within the 100-year flood zones. These areas have a one-percent chance of inundation at varying depths.

The lower channel of Refugio Creek ~~is inadequate with~~ has had a history of overflowing. The upper channel is on a slumping of slide slopes. Improvements to the lower channel in recent years have reduced the potential for flooding both upstream and downstream. Approximately 2,500 linear feet of Refugio Creek adjacent the Bayside subdivision was realigned and restored in 2004. As part of the restoration, the creek was relocated to a new 180-foot wide channel to convey flood flows. Areas of 100-year flooding can be seen in Figure S-3. For specific elevations of flooding, please see the Flood Insurance Rate map (Community Panel Number 0604340008B and 0604340009B) on file with the City of Hercules ~~or the~~ Official Flood Insurance Rate Maps online at FEMA's mapping website: <https://msc.fema.gov/>

### 3. Standing Water from Excess Rainfall

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## III. SAFETY GOALS, OBJECTIVES, AND POLICIES

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### **Program 1A.7 Location of New Essential Public Facilities**

Locate, when feasible, new essential public facilities outside of flood and fire hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities. When such location is necessary, identify construction methods or other methods to minimize damage to such facilities.

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### **Program 3B.1**

Subdivision and planned development plan applications shall include measures to promote fire safety. These measures shall be evaluated during application review and implemented through adoption as conditions of approval for the project including:

- 1) Road circulation for fire and emergency vehicle access.
- 2) Access to structures and open spaces
- 3) Fire flow needs and other peakload water flow needs for emergencies

- 4) Landscape design
- 5) Visible street signs

# City of Hercules General Plan

## Figure S-3: Floodprone Areas

Flood Zone	Description
 Zone A	Areas subject to inundation by 1% annual-chance flood event generally determined using approximate methodologies.
 Zone AE	Areas subject to inundation by 1% annual-chance flood event determined by detailed methods. Base Flood Elevations are shown.
 Zone AO	Areas subject to inundation by 1% annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet.
 Zone VE	Areas subject to inundation by 1% annual-chance flood event with additional hazards due to storm-induced velocity wave action.
	Creek Drainages
	City Boundary
	Sphere of Influence

