



# COMPREHENSIVE PLAN UPDATE CITIZENS ADVISORY COMMITTEE SUBCOMMITTEE SAFETY ELEMENT

**September 27, 2016**

Downtown Library – Community Meeting Room  
270 Forest Avenue, First Floor  
Palo Alto, CA 94301  
1:00 PM to 4:00 PM

**TITLE:** Safety Element Subcommittee Discussion  
**FROM:** Elena Lee, Interim Planning Manager,  
Planning & Community Environment Department

## Background

This will be the first subcommittee meeting on the Safety Element. It is a joint meeting of the Safety and Sustainability subcommittees.

This meeting will identify issues for further discussion at the first meeting of the full CAC on the Safety Element, to be held on October 18, 2016. Following this meeting, City staff and the consultants will prepare a staff report for the October 18 CAC meeting that summarizes the subcommittee discussion and outlines the issues on which the CAC may choose to focus.

You will notice that the attached policy framework already reflects extensive changes. This is due to the fact that the Safety Element (which is currently part of the Natural Environment Element) has been the focus of several important legislative changes relating to General Plan law over the past ten to fifteen years, as well as the focus on numerous related City initiatives such as emergency preparedness and hazard mitigation. To prepare for this subcommittee meeting, staff and consultants started from the existing Natural Environment Element and added revisions from the following sources:

- **Council direction** from their December 14, 2015 motion (Attachment B). The Council provided direction on the vision, goals, and organization of the existing Natural Environment Element, including adding a Goal on Climate Change and Climate Adaption and moving Natural Hazards (Goal N-10), Hazardous Waste (Goal N-6) and Solid Waste (Goal N-7) to a new Safety Element.
- **PTC revisions.** In the case of the Natural Environment Element, the PTC made substantial recommendations to incorporate staff input from the numerous City departments involved in protecting Palo Alto's natural environment and avoiding or responding to hazards. PTC input also captured a number of changes needed to make the element more current in response to recent legislation, incorporated City documents (such as the Urban Forest Master Plan), and

emerging planning trends. For these reasons, a greater number of PTC revisions have been brought forward for CAC consideration and discussion than was the case with prior elements.

- **Staff comments** from Public Works, Utilities, and Office of Emergency Services (OES) reviewers.
- **Draft S/CAP.** Both the S/CAP and the Safety Element address solid waste, water resources, and other topics.
- **EIR mitigation measures,** re-worded to be consistent with the tone and level of detail of other Comprehensive Plan policies and programs. Where the EIR identified that specific policies or programs should be included in the Comp Plan, those appear in the attached draft of the Safety Element policy framework.
- **State legal requirements** for planning for flood hazards, fire hazards, and sea level rise.
  - **Flood.** [Government Code 65007\(d\)](#) establishes the definition of a “flood hazard zone,” areas to which support policies and FEMA assistance are directed. [Government Code 65302\(d\)](#) states that portions of the conservation element, including flood management, shall be developed in coordination with any countywide water agency and with all district and City agencies. City staff will coordinate accordingly. AB 162 requires the conservation element of the general plan to identify rivers, creeks, streams, flood corridors, riparian habitat, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.
  - **Fire.** According to [Government Code 65302\(g\)](#), the Safety Element must 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 includes policies and programs to protect the community from the risk of wildfire.
  - **Sea Level Rise.** Policies related to sea level rise must respond to [Senate Bill 379](#), passed in October 2015, which requires climate adaptation and resiliency strategies in the Safety Elements of their general plans, including policies that are based on the most current information available regarding climate change adaptation and resiliency. In addition, according to [Government Code 65302.10\(a\)](#), as of January 1, 2009, cities shall include consideration of the effects of sea level rise when amending the appropriate elements of its general plan.
- Deleted programs that have been completed and policies that have been accomplished or are no longer applicable.

## What to Expect at the Meeting

At the outset of the meeting, time will be given over to public comment from members of the community. Speakers will be allowed up to three minutes to share their thoughts on issues addressed in the Safety Element. Time limits are necessary to ensure that there is an opportunity for members of the public to express their opinions, while also ensuring that the subcommittee can complete the agenda set out for the meeting.

The Safety Element is critical and contains a number of topics of great interest to CAC members and the community. At this first meeting on the Element, we suggest that the two subcommittees take advantage of the joint meeting format to review each goal/topic and daylight high-level ideas or areas for further discussion, rather than delving into specific policy or program wording. The Safety subcommittee is scheduled to have two further meetings for more in-depth discussion.

**Meeting 1:** Natural Hazards and Infrastructure

**Meeting 2:** Hazardous Materials and Community Safety and Emergency Management

The full CAC is scheduled to discuss the Safety Element at its October 18, November 15, and December 13 meetings. Future Safety subcommittee meeting dates are not yet set but will be held before the full CAC meets.

## **Topics for Discussion**

### **Organization**

One of the most significant topics to include in the new Safety Element is infrastructure. Currently, infrastructure is not prominently or consistently addressed in the Comp Plan. However, in the past several years, maintaining and upgrading Palo Alto's infrastructure has become a top concern for the community and a priority for the City Council. The Comp Plan Update is an important opportunity to reflect this priority, and the connections between natural hazards, community safety, and adequate, reliable infrastructure make the Safety Element a logical location.

At the September 20 meeting, the full CAC provided direction on a recommended organization provided by staff and consultants. Based on that feedback, the organization of the Natural Environment and Safety Elements would be:

## **Natural Environment Element**

### **Land**

- Foothills Open Space, Bay Open Space, and Urban Parks
- Creeks and Riparian Areas
- Urban Forest
- Soil

### **Water Resources**

- Groundwater Quality
- Surface Water Quality
- Watershed Management
- Recycled Water

### **Air Quality**

### **Noise**

### **Light Pollution**

### **Energy**

- Including alternative/ renewable energy

### **Climate Change and Climate Adaptation**

- GHGs
- Sea level rise
- Ecological resilience

## **Safety Element**

### **Natural Hazards (or Threats)**

- Ground shaking
- Flood
- Fire
- Drought

### **Hazardous Materials**

- Including household hazardous materials

### **Community Safety and Emergency Management**

- General Safety Measures
- Emergency Management
- Man-made Threats (including civil rights and privacy, terrorism, safe water supply, crime)
- Critical Facilities (including Public Safety Building)

### **Infrastructure**

- Water Supply and Conservation (including graywater)
- Wastewater Treatment and Recycled Water
- Storm Water Management
- Solid Waste and Recycling (including electronics recycling)
- Telecommunications (including digital/ Connected City)

## Information in the EIR

The EIR [\[link\]](#) contains extensive background information on existing conditions and regulatory documents relevant to the Safety Element (including infrastructure). We recommend reviewing these sections, if possible, before the subcommittee meeting. Specifically:

EIR CHAPTER	SAFETY ELEMENT TOPICS COVERED
<a href="#">4.5 Geology, Soils, and Seismicity [link]</a>	Seismic hazards Landslide hazards Liquefaction hazards
<a href="#">4.7 Hazards and Hazardous Materials [link]</a>	Hazardous materials sites, users, transportation Groundwater contamination Airport hazards Wildfire hazards Emergency response and evacuation
<a href="#">4.8 Hydrology and Water Quality [link]</a>	Surface water drainage Groundwater Water quality/contamination Flooding Sea level rise Dam inundation Tsunami
<a href="#">4.14 Utilities and Service Systems [link]</a>	Water supply Wastewater Solid waste Energy Telecommunications

## Relevant City Plans, Studies, and Policy Documents

The policy direction and findings of the following plans and studies, either adopted or underway, must be considered in the development of a coordinated, effective Safety Element. Relevant links are provided in each bullet heading.

### Safety

- [Local Hazard Mitigations Plan \(LHMP\) \[link\]](#)**. Palo Alto’s Office of Emergency Services (OES) is currently developing a city-specific version of Santa Clara County’s LHMP, a plan required by federal Disaster Mitigation Act of 2000 that will update the City’s 2012 “annex” of the County LHMP [\[link\]](#). The LHMP describes broad community goals and actions to mitigate the highest-priority hazards facing Palo Alto. The Plan will build on a comprehensive vulnerability/risk assessment to develop a series of policies and actions to mitigate the city’s top hazards of earthquake, flood, sea-level rise, wildfire, drought and extreme heat.
- Vulnerability Assessment**. Recent legislation, notably Senate Bill 379 (2015), requires that local climate adaptation and safety policy be based on a formal vulnerability assessment. As noted below, the City’s Local Hazard Mitigation Plan, currently being prepared, is based on such an assessment. Throughout 2016, the LHMP team has identified and assessed top city hazards, inventoried its major assets and established a community risk profile. Although the vulnerability

assessment has not yet been published, Planning staff are coordinating with staff from the City's [Office of Emergency Services \(OES\) \[link\]](#) that are responsible for the vulnerability assessment and LHMP.

- [Threat Hazard Identification and Risk Assessment \(THIRA\) \[link\]](#). A THIRA is a 4-step planning tool that the Department of Homeland Security requires of states and “high-threat, high-density urban areas,” including Palo Alto, to prepare. The THIRA covers natural hazards, technological hazards, and human-caused threats and lays out a framework “to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.” Through the THIRA process, the City identified a range of potential hazards and prioritized the greatest risks, ranging from earthquake and flood to airplane accidents or cyber-attacks. [SAFER Bay Levee Improvements. \[link\]](#) The San Francisquito Creek JPA is currently conducting a levee improvement design project for the Bayfront levees between San Francisquito Creek and the Palo Alto/Mountain View border. The *Strategy to Advance Flood protection, Ecosystems and Recreation* or “SAFER Bay” will develop a Bayfront levee system design that provides 1% (100-year) protection from tidal flooding, assuming three feet of seal level rise over the next five decades. Palo Alto is participating in a feasibility study to identify potential alternative methods and alignments for levee improvements, estimated project costs, and preliminary environmental impacts, mitigation measures, and permitting requirements.
- [Foothills Fire Management Plan \(FFMP\) \[link\]](#). The goal of this 2009 management plan is to reduce losses from wildland fire in Palo Alto's Wildland Urban Interface area, including the foothill areas within the City limits west of I-280. The majority of this area is covered by the Pearson-Arastradero Preserve, Foothills Open Space Preserve, and Monte Bello Open Space Preserve. In 2012, the City entered into a multi-year agreement with the Santa Clara FireSafe Council to implement the FFMP and to provide additional community education and outreach to the residents of the Wildland Urban Interface area within the city. The FireSafe Council is currently in the process of preparing a [Community Wildfire Protection Plan \[link\]](#) that includes a [Palo Alto annex \[link\]](#).

## Infrastructure

As noted above, infrastructure is a key new topic proposed for addition to the Safety Element. The Comp Plan should provide policies and programs that support the City's need for safe, efficient, reliable, adaptable infrastructure to serve existing and future residents and businesses. Like most other topics in the Comp Plan, the details of infrastructure maintenance, expansion, and regulation are addressed in detail in various master plans, Municipal Code sections, and the annual [Capital Improvement Program \[link\]](#). The section below presents some of the most relevant plans; additional detail is available in the Draft EIR, as noted above.

- [Infrastructure Blue Ribbon Committee \[link\]](#): In 2010 the City Council created a commission of 17 citizens and commissioners to provide a recommendation on infrastructure needs, priorities, projects and associated funding mechanisms to address the infrastructure backlog and future needs. The IBRC considered these questions over a 25-year time horizon and made specific recommendations to “catch up” (address deferred maintenance) and “keep up” (conduct routine maintenance and plan head for systematic repairs), as well as plan for new or rehabilitated facilities. The IBRC final report contains 20 specific recommendations, including a new system for monitoring infrastructure; building a new Public Safety Building; and approaches to financing infrastructure investments. The IBRC concluded their work in 2011.

- [Urban Water Management Plan \(UWMP\) \[link\]](#). As required by the Urban Water Management Planning Act, all cities are required to update their UWMP every five years and submit it to the California Department of Water Resources for review and approval. The 2015 UWMP, adopted by the City Council in May 2016, includes an assessment of the reliability of the City’s water sources, an analysis of water demand and alternative water supply sources, a description of water conservation efforts, and a water shortage contingency plan.
- [Water Integrated Resources Plan \(WIRP\) \[link\]](#). Originally adopted in 2003 and updated in 2016, the WIRP discusses the variety of potable water supply resources and planning. It includes an assessment of alternative potable water supplies, and assesses recycled water as a tool to reduce potable water demand.
- [Recycled Water \[link\]](#): The City owns and operates the Palo Alto Regional Water Quality Control Plant (RWQCP), a wastewater treatment plant, for the East Palo Alto Sanitary District, Los Altos, Los Altos Hills, Mountain View, Palo Alto, and Stanford University. Wastewater from the City and these communities is treated by the RWQCP prior to discharge to the Bay. The RWQCP currently produces recycled water in excess of the current demand; therefore staff is working to expand the recycled water demand and distribution system. The City certified an [EIR \[link\]](#) on September 28, 2015, to expand recycled water through South Palo Alto to Stanford Research Park and is currently working on updating the 1992 Recycled Water Master Plan. To improve the quality of recycled water and reduce its salinity/total dissolved solids (TDS), the City is initiating a jointly funded feasibility study (with SCVWD and Mountain View) on the installation of an advanced water purification system (AWPS) at RWQCP ([link to CMR here](#)).
- [Sewer System Management Plan \[link\]](#): The Sewer System Management Plan documents the proper operation and maintenance of CPAU’s sanitary sewer system, including capacity management and system audits. In addition, the Municipal Code includes the [Sewer Use Ordinance \[link\]](#) to prevent and control pollution and protect and foster human and environmental health and the [Private Sewage Disposal Systems Code \[link\]](#), which prohibits the installation of private sewage disposal systems or septic systems in subdivisions, except where installation of public sanitary sewerage facilities is clearly not feasible.
- [Storm Drain Master Plan \[link\]](#): The City prepared a *Storm Drain Master Plan Update* in June 2015. The Master Plan Update re-examined and reprioritized the storm drain improvements needed to increase the capacity of the City’s storm drain system to bring it into conformance with current design standards. More recently, an 11-member Storm Drain Blue Ribbon Committee concluded its work and forwarded recommendations to Council for future storm drain funding. The Blue Ribbon Committee suggested a shift to using the term “stormwater management” and recommended that the City emphasize green storm water infrastructure planning and implementation in its future storm water program and City-wide capital improvement program scoping and budgeting. The shift toward green infrastructure is consistent with new mandates from the San Francisco Bay Regional Water Quality Control Board to develop a Green Storm Water Infrastructure Plan. ([Council staff report and complete recommendations here](#))
- **Technology and Telecommunications:** The City of Palo Alto operates its own fiber optic utility. City of Palo Alto Utilities (CPAU) has the day-to-day responsibility for operating, maintaining, and marketing a 41-mile dark fiber optic backbone system (“fiber system”) that passes key City facilities, business parks, and commercial areas. CPAU licenses “dark fiber” for commercial purposes. Customers pay a one-time construction fee to connect to the fiber system and then pay a monthly recurring charge to license the use of the dark fiber. In 2015 the City completed a

Fiber to the Premises (FTTP) Master Plan and a Wireless Network Plan. The key recommendations from the FTTP Master Plan suggested that the City explore a public-private partnership to develop an FTTP network (as a complement to the existing dark fiber network) and offer retail FTTP services. The Wireless Network Plan recommends expanding the City's existing Wi-Fi coverage to additional City facilities and adjoining public areas such as parks; installing dedicated wireless facilities to address the needs of the City's first responders and Utilities; and considering a citywide broadband wireless network for use by the general public. ([Staff report and both Master Plans here](#))

## **New Issues Brought Up at the CAC**

The CAC discussion on September 20 raised several new issues not currently covered in the existing Natural Environment Element. Staff and consultants will need to develop draft policies and programs covering these new topics for the subcommittee and the CAC to respond to. The subcommittee may wish to provide initial input and ideas regarding these topics:

### **Natural Hazards:**

- Add Drought

### **Community Safety and Emergency Management:**

- Add Crime
- Add Train Safety or Train and Transit Safety
- Add Tree Roots or Pedestrian Safety
- Add Privacy
- Add something about the Public Safety Building; this addition is reflected under the broader topic Critical Facilities, which is the terminology used in the LHMP.

### **Infrastructure:**

- Add Recycling under Solid Waste, including electronics recycling
- Add Telecommunications and/or a "Connected City"

## **Next Steps**

The Safety Element policy framework will be revised in response to subcommittee comments and will be brought forward to the full CAC in the packet for the October 18 meeting. The Safety subcommittee will have two further meetings in October and November to review the policy framework in depth before a Draft Element is developed for consideration in December.

## **Attachments**

A: Safety Element Policy Framework

B: Council motion