Agenda Report

TO: City Council **DATE:** October 14, 2002

FROM: City Manager

SUBJECT: Revision of General Plan Safety Element

RECOMMENDATION:

It is recommended that the City Council following a public hearing:

1. Approve the Initial Environmental Study and Negative Declaration and make the appropriate findings (Attachment 1);
2. Approve the De Minimis Impact Finding on the State Fish and Wildlife Habitat (Attachment 2);
3. Receive the Technical Background Report to the Safety Element of the General Plan (Attachment 6) as the basis of the updated Safety Element;
4. Approve the updated Safety Element (i.e., the Goals, Policies, and Programs Report) (Attachment 7);
5. Approve a Resolution (Attachment 4) adopting the updated Safety Element (i.e., the Goals, Policies, and Program report); and
6. Direct the City Clerk to file a Notice of Determination (Attachment 3) and a Certificate of Fee Exemption for the California Department of Fish and Game, with the Los Angeles County Recorder.

PLANNING COMMISSION RECOMMENDATION:

The Planning Commission reviewed the draft Safety Element at its regular meeting of August 28, 2002, and voted unanimously to recommend approval of the updated Safety Element of the General Plan.

EXECUTIVE SUMMARY:

The Safety Element is one of seven general plan elements that are required by State law. The Safety Element update addresses concerns of hazards such as seismic,

geologic activity, fire, flood and hazardous materials in the City. Two reports have been prepared to update the Element: a) The Technical Background Report that identifies and addresses those features or characteristics existing in or near the City, which represent a potential hazard to the community's citizens, site and structures, public facilities and infrastructure; b) The Goals, Policies, and Programs Implementation Report that establishes policies to minimize the dangers to residents, workers, and visitors while identifying actions needed to manage hazardous situations such as earthquakes, geologic activity, flood, fires, and hazard materials. The City's existing Public Safety and Seismic Safety Element of the General Plan was adopted in September 1975 and has not been updated since. Details of the existing and proposed goals, policies, and programs of the Safety Element are shown in Attachment 5 of this report. Existing goals, policies, and programs are carried forward as part of the updated Element, as well as those that are proposed.

COMMUNITY OUTREACH:

On July 2, 2002, a community workshop was held to solicit input about the Safety Element. Staff notified businesses and all neighborhood associations about this workshop. In addition, staff offered to conduct presentations to neighborhood associations if requested. Background information was presented to the Planning Commission on July 14, 2002, and to the Joint Planning Commission/Transportation Advisory Commission/Community Development Subcommittee for the Zoning Code Revision/Central District Specific Plan/Five-Year General Plan Update/Citywide Design Guidelines during preparation of the Element. Changes recommended at these meetings were incorporated into the Element.

Staff also held meetings with the Board of Realtors and Huntington Memorial Hospital to discuss specific programs recommended by the Element.

A representative from the United States Geological Survey, participated and assisted staff in revising the Safety Element.

BACKGROUND:

The Safety Element is "for the protection of the community from any unreasonable risks" associated with seismic, fire, flooding, and other geological conditions. The Safety Element is required by State law (California Government Code Section 65302 (g)), which sets forth a list of hazards that the Element must cover, if they pertain to conditions in the city. The list includes: 1) Seismically induced conditions including ground shaking, surface rupture, ground failure, tsunami, seiche, and dam failure; 2) Slope instability leading to mudslides and landslides; 3) Subsidence, liquefaction, and other geologic hazards; 4) Flooding; and 5) Wildland and urban fires. The Element may also address safety issues related to hazardous materials. The Element should include mapping of known seismic and other geologic hazards, and contain general hazard and risk reduction strategies with policies supporting hazard mitigation measures.

Since the adoption of the 1975 City's Public Safety and Seismic Safety Element: 1) Several earthquakes have shaken the City and new seismology data has been published; 2) The City was legally mapped for seismically-induced liquefaction and

landslides by the California Geological Survey (CGS); 3) The Uniform Building Code was completely revised and re-chaptered; and 4) Senate Bill 547 was enacted to require all cities and counties located in a certain seismic zone to identify potentially hazardous buildings and establish a mitigation program for those building (Government Code section 8875 et. Seq., also known as the Unreinforced Masonry Building Law).

The updated Seismic and Safety Element will: a) Incorporate newly published legal maps for liquefaction and landslides, new seismology data, and the new building code requirements; b) Reference and incorporate where appropriate the policies and programs adopted by the City to satisfy the state-mandated mitigation requirements of Senate Bill 547; c) Make it internally consistent with the General Plan's newer elements; and d) incorporate new policies and programs in the updated Safety Element (Attachment 5).

The Safety Element update is proceeding within the larger context of the Land Use and Mobility Elements updates, the Zoning Code revision, the Citywide Design Guidelines, the Central District Specific Plan, and the Noise Element update. The Safety Element will complement these efforts by providing data regarding hazards in the City, formulating policies that take into account seismic, geologic, fire, flood, and hazardous materials management, and reducing the impacts caused by these hazards.
As required by State law, the updated draft Safety Element and the Technical Background Report was sent to the California Geological Survey (CGS) of the Department of Conservation for review. The CGS will review the Element for adequacy on the seismic and other geologic hazard information.

Earth Consultant Inc. assisted staff with the preparation of the updated Element.

SAFETY ELEMENT DOCUMENTS:

The Technical Background Report (Attachment 6) presents the existing natural hazards as background information for the Safety Element. The Safety Element Goals, Policies, and Programs implementation report (Attachment 7) contains measures directed at reducing hazards in the City. The goals, policies, and implementation programs are the result of technical analysis and evaluation of natural hazards that are specific to Pasadena.

Upon City Council approval, the latter document (Attachment 7) will be reformatted to become the updated Safety Element.

ANALYSIS:

The Safety Element is intended to provide broad general direction, with more detailed implementing regulations contained in the City's municipal code and the 1998 California Building Code (based on the 1998 Uniform Building Code).

Below is a brief summary of the primary hazards that are identified in Attachment 6 and the program measures outlined in Attachment 7 that are intended to address these issues:

Seismic

The City of Pasadena is located between two active fault systems: the Sierra Madre fault along its northern limits, and the Raymond Fault along its southern boundaries. A fault hazard management zone has been defined around each of these faults. The Raymond fault is zoned under the Alquist-Priolo Earthquake Fault Zoning, so geological evaluations are mandated by State law if development is proposed within this zone. In addition to these faults, the Elysian Park, Verdugo and Hollywood fault zones are likely sources of earthquakes that may impact the City.

A number of historic earthquakes have caused significant ground shaking in Pasadena. The Whittier Narrows earthquake of 1987 and the Sierra Madre earthquake of 1991 both caused damage within the City. Thus, the 1997 Uniform Building Code requires that near-source factors (seismic analysis) be incorporated into design of new buildings.

The Goals, Policies, and Program report identifies means to minimize the effects of seismic hazards. For example, Program S-1.2 requires geological studies, such as fault-trenching of the defined traces of the Sierra Madre and Raymond faults for development and redevelopment of residential, commercial or industrial parcels or tracts that amounts to 5,000 square feet or more. Program S-2.3 reaffirms the City's requirement for geological and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental and development process. Program S-3.2 will require the City to identify un-retrofitted buildings, including tilt-up construction, non-ductile reinforced concrete, and tuck-under parking and other soft-story construction. This is in addition to the recently completed City program for retrofitting of unreinforced masonry building, in accordance with the Ctiy's URM ordinance.

Geologic

The City's hillsides are vulnerable to slope instability due primarily to the fractured, crushed and weathered condition of the bedrock, and the steep terrain. The probability of large bedrock landslides occurring in the City is relatively low. The source of potential losses due to slope instability arises primarily from the occurrence of smaller slope failures in the form of small slides, soil slips, debris flows and rockfalls. The initiation of such failures is generally tied to a preceding event, such as wildfire, heavy winter storms, seismic, or man-made activities.

To minimize geologic hazards, programs were developed in the Safety Element. In areas susceptible to slope instability, Program G-1.1 require geotechnical investigations that include engineering analysis of slope stability, and detailed design for fill placement and excavation. Program G-1.5 will not permit the reconstruction of structures that were damaged or destroyed by failed slopes unless remedial measures are proposed.

Flood (Dam Inundation)

Two major stream channels transect the City: the Arroyo Seco on the west and Eaton Wash on the east. Flood control dams have modified both drainages and both have been confined to man-made channels or storm drains. The City is not currently

vulnerable to flooding associated with the Arroyo Seco and Eaton Canyon. However, the possibility exists if any of the dams fail due to earthquakes. If the Devil's Gate Reservoir fails, most of the water will be confined to the Arroyo Seco Channel, but inundation would impact the Rose Bowl and other developed areas both north and south of the 210 Freeway. Since this area is largely undeveloped, and used for recreational purposes, the risk is low. If Eaton Wash Dam fails, inundation would impact developed areas located downstream of the dam, north of the 210 Freeway. Both dams, Devil's Gate and Eaton Wash, are owned by Los Angeles County Department of Public Works (LACDPW). As required by State law, the LACDPW is required to prepare and submit emergency response plans to the State Office of Emergency Services. The City is also required by State law to have in place emergency procedures for the evacuation of populated areas within the limits of dam inundation areas.

Policy and programs that have been developed to minimize risks from flooding inundation are indicated in Policy F-1.1 and Program F-1.3 (Attachment 7). This policy and program will discourage development of critical facilities (i.e., hospitals, fire stations, communication centers) in flood inundation areas and will continue to encourage the development of parks and recreational facilities in the Arroyo Seco area. Program F-1.2 calls for the City in cooperation with the Los Angeles County Flood Control District to conduct studies of drainage and dam improvements at the base area of the San Gabriel Mountains and the San Rafael Hills.

Currently, the Army Corps of Engineers is studying the potential removal of the concrete flood control channel along the Arroyo Seco. The Corps of Engineers would need to develop flood control alternatives that address both public safety and aesthetics concerns. The City will be working closely with this agency to ensure that technical studies adequately address these concerns.

Fire

The portions of the San Rafael Hills and the San Gabriel Mountains within City limits have been designated as fire hazard zones due to the steep topography and the presence of flammable vegetation. Some of these areas are under Federal jurisdiction (Very High Fire Hazard Severity Zones), and some are under State jurisdiction (State Responsibility Areas) (Attachment 6, Plate 4-1). Residents in these areas need to recognize that they live in a hazardous area, and that they are responsible for maintaining their properties.

To minimize fire hazards, Program R-2.1 encourages residents to plant and maintain drought-resistant, fire-retardant landscape species on slopes to reduce the risk of brush fire and soil erosion. Program R-2.2 reaffirms that the City will continue to enforce the Weed Abatement Program in high fire risk area.

Hazardous Materials

There is one large-quantity and more than two hundred small-quantity generators of hazardous materials in the City. There are four sites at or near the City that have released hazardous materials into the air – the Environmental Protection Agency (EPA)

monitors these facilities closely to reduce the potential of future emissions at concentrations above the acceptable limits. Of these, Jet Propulsion Laboratory (JPL), just outside the City boundaries, is located within the recommended fault hazard management zone for the Sierra Madre, and within a wildfire hazard area. None of the significant hazardous sites are located within or adjacent to a liquefaction area, or an unstable slope area. Furthermore, none of the sites are located within or adjacent to a dam inundation area.

Policy H-1.4 will help in minimizing hazardous materials in the City, by requiring that new facilities involved in the production, use storage, transport or disposal be located a safe distance from land uses that may be impacted by such activity, and conversely, that new sensitive facilities not be allowed to be located near existing sites.

ENVIRONMENTAL DETERMINATION:

An Initial Environmental Study was prepared for the updated Safety Element in conformance with the requirements of the California Environmental Quality Act (CEQA). It was found that the proposal would not have a significant effect on the environment and a Negative Declaration has been prepared. In addition, there will be no impact on fish and wildlife and staff is recommending the adoption of a Negative Declaration.

CHILDREN, YOUTH, AND FAMILY IMPACT:

The updated Safety Element includes objectives, policies, and programs that commit the City to minimize injuries and loss of life that could result from seismic, geologic, fire, and flood hazards. The management of these hazards through policies and programs recommended in the updated Safety Element will create a safer environment for children, families, and all residents in the community.

FISCAL IMPACT:

The updated Safety Element includes goals, policies, and programs that commit the City to minimize the risks created by natural hazards. Recommended programs, such as cataloguing of hazardous buildings (i.e. tilt-up construction, building with tucked-under parking) and planning for their retrofit will result in an increased staff workload. At the time these programs are formulated, it will be determined whether existing staff could absorb the additional workload or if additional resources may be needed.

Respectfully submitted,

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Attachments:

Attachment 1 – Initial Environmental Study, Negative Declaration, and CEQA Findings
Attachment 2 – De Minimis Impact Finding
Attachment 3 – Notice of Determination
Attachment 4 – Resolution Adopting Updated Safety Element
Attachment 5 – Existing and Proposed Goals, Policies, and Programs of the Safety Element
Attachment 6 – Technical Background Report to the Safety Element
Attachment 7 – Safety Element Goals/Policies/Programs Implementation Report