



Technical Background Report to the Safety Element of the General Plan City of Glendale, California

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Introduction to the Technical Background Report of the Safety Element for the City of Glendale

Welcome! The Safety Element of the General Plan is the disaster mitigation plan for Glendale. Its ultimate goal is to improve the safety of the community. However, for appropriate hazard management, including effective emergency preparedness and response, communities need to know in advance what are the potentially hazardous conditions specific to their area. A major part of this knowledge base is based on maps that identify the vulnerable areas in the community. This is covered in the Technical Background Report of the Safety Element.

Therefore, in this report you are going to read about your City. Natural geologic processes are responsible for much of the natural beauty that makes Glendale such a special place to live and work. Unfortunately, many of these processes are not gradual, but rather, are sudden and often violent. Periodic large earthquakes are responsible for the uplift and continued growth of the San Gabriel Mountains that form the spectacular backdrop to Glendale, and the steep bedrock highlands, such as the Verdugo Mountains and the San Rafael Hills, right in the heart of the City. Flooding, erosion, and sediment transport are responsible for forming the broad sloping surfaces in the Crescenta and San Fernando Valleys, as well as for carving the impressive Verdugo Canyon that connects the northern and southern portions of the City. When these geologic processes occur within an urban environment, they become hazards, and when they do occur, they can create a disaster for those impacted by them.

Most of the hazards covered in this report are “natural” hazards, such as earthquakes (Chapter 1), landslides (Chapter 2), floods (Chapter 3), and fire (Chapter 4). In reality, however, these natural conditions do not pose a hazard in the wild, and it is only when they interact with the built environment that they become an issue. For example, a landslide in an undeveloped area is just a landslide, no buildings or structures are damaged, and no one is hurt or killed. But when a landslide occurs in a developed residential area, it has the potential to cause extensive damage and monetary losses, frequently never recovered by the victims. This does not need to happen though. From past experience, we have learned how to correct slope instability, how to measure and contain flood waters, and how to design earthquake and fire resistant structures. We have also learned that avoidance is sometimes the best defense.

The last two chapters of this report cover other safety issues that are not “natural.” Chapter 5 discusses ways to reduce the harmful effects to our environment posed by many of the substances that we depend on for our every day comfort – substances such as gasoline, herbicides, fertilizers, and chemical compounds used to manufacture an amazing array of objects and products. Chapter 6 discusses crime, terrorism, and civil unrest and other safety issues of this type.

So, what is the best way to use this report? As the saying goes, “a picture is worth a thousand words.” Thus, we recommend that you first refer to the maps that accompany this report. If you are like almost everybody else, you will want to look for the area where you live or work, or where you are thinking of moving. These maps will show you at a glance whether the area you are interested in is located, for example, on or near an earthquake fault, an area susceptible to ground failure, or a highly hazardous fire area. Keep in mind, however, maps are by necessity

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generalized, and therefore, the boundaries shown on the map are only approximate – you do not want to be lulled into a false sense of security because your lot is across the street from where we have placed a contact between a hazardous and a non-hazardous zone. Or, alternatively, decide to move because you are currently living in an area zoned as hazardous. This is where reading the text comes in. Read about the specific hazards that you are concerned with, then apply that knowledge to your lot and house. How old is your house? Is it tied down to its foundation? Does it have a fire-resistant roof? There are specific actions that you can take to make your house specifically, or Glendale in general, a safer place.

Key paragraphs or sections in the text of special interest are identified with symbols along the right-hand margin of the pages. The three symbols used, and their significance, are as follows:

Datum of general interest -



Datum of interest to the City of Glendale -



Mitigation measures that could be implemented -
to reduce a given hazard



The primary point of this document is to educate and inform the citizens, workers, and officials of Glendale of the potential hazards in the community. By doing so, you can take action to reduce the hazards specific to your area to a level that you, your family and your community are comfortable with. Through appropriate action, the hazard does not need to become a disaster.

Glendale is a relatively mature city; many areas of the City are fully developed, and in these areas, nearly all mitigation will be through redevelopment. As a result, disaster mitigation in these sections of the City will require decades to complete. Other areas, primarily in or adjacent to the hillsides, are still in a fairly natural state, but slated for future development. In these areas, there are opportunities to develop sensibly, avoiding some hazards altogether, like active faults, and implementing mitigation measures to reduce other hazards to acceptable levels. Although hazard reduction is a moving target, it must be accomplished. Government is tasked with the responsibility for citizen health, safety, and welfare. In the end though, all mitigation is local. Without the support of the citizens of Glendale, no governmental programs will be successful. It is hoped that this document will assist you in understanding the issues and the risks you and Glendale face. Through such an understanding you will be ready to support and implement the programs necessary to reduce your risk to community-accepted levels.

We hope that you enjoy reading this document, and that the data presented herein provides you with the impetus to demand action of yourself and others in Glendale to make it an even safer City to live and work in.

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