

CHAPTER 5 • SAFETY ELEMENT

INTRODUCTION

The Safety Element is one of seven State-mandated elements of a city's General Plan. Section 65302(g) of the Government Code requires cities to develop, adopt, and implement a Safety Element as follows:

The General Plan shall include 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 and other geologic hazards known to the legislative body; flooding; and wildland and urban fires.

Following accidents and disasters, citizens are sometimes heard to ask, "How did this happen?" or "How can this be prevented from happening again?" or perhaps most importantly, "What is the government's policy to prevent or respond to such emergencies?" The Safety Element in itself can not prevent natural disasters; however, it can provide standards that may help minimize the impacts of disasters on the human population and structural improvements in the area. It will also provide additional standards for planning structures that may be located in areas where there is a higher probability, or risk, of a disaster occurring.

Safety of the citizens of Kerman must be uppermost in the minds of the local decision-makers. This Element will provide a guideline towards developing a safer environment for the community. Local decisions related to zoning, subdivisions, entitlement permits and the like should be tied to this Element's identification of such hazards.

THE ELEMENT

The Safety Element is the primary vehicle for relating local safety planning to City land use decisions. The Element's main purpose is to reduce death, injuries, property damage and the economic and social dislocation resulting from natural hazards. In 1975, the Legislature adopted SB 271, which made the safety element a mandatory part of the General Plan. At that time, the element was required to include policies relating to fire safety, flooding, and geologic hazards.

In 1984, the Legislature adopted AB 2038, which requires that the list of mandatory safety element issues be expanded to include seismic safety. Essentially, the Legislature took the issues previously considered in the seismic safety element and made them safety element requirements.

While the focus of the safety element is on fire, flooding, seismic and geologic hazards, it may also address locally relevant safety issues such as vehicle accidents, crime, power failures, and hazardous material spills.

SAFETY ELEMENT ORGANIZATION

The Kerman Safety Element contains three primary components:

- 1) existing conditions;
- 2) community goals; and
- 3) issues, policies, and action programs.

EXISTING CONDITIONS

Kerman is located on the floor of the central San Joaquin Valley approximately 15 miles west of Fresno. The mountains of the Coast Range and the Sierra Nevada are roughly equidistant from Kerman, about 35 miles to the southwest and northeast, respectively. The topography in and around Kerman is very level with a gentle, imperceptible slope to the southwest. Elevations in the planning area vary from about 210 feet to 225 feet. There are no natural waterways in the planning area. The largest nearby waterway of consequence is the San Joaquin River, about ten miles north. However, there are several irrigation canals that traverse the planning area.

Briefly discussed below are existing conditions pertaining to specific issues relating to safety in the City of Kerman. These issues include: seismicity, public safety, fire, flooding, and hazardous land use relationships. A more detailed description of these issues and additional background information on Kerman is found in Part 2 of this document.

Seismic Safety

Fresno County is comprised of nine seismic zones, as defined in the Five County Seismic Safety Element (FCSSE). These zones are differentiated by the level of ground motion that can reasonably be anticipated from earthquakes on the principal fault systems affecting the five county area. The generalized location of these zones is shown on Map

14. This map shows that Kerman is located within the V1 zone. The FCSSE states that the V1 zone:

Includes most of the eastern San Joaquin Valley, and is characterized by a relatively thin section of sedimentary rock overlying a granitic basement. Amplification of shaking that would affect low to medium-rise buildings is relatively high, but the distance to either of the faults that are the expected sources of the shaking is sufficiently great that the effects should be minimal. The requirements of Zone II of the Uniform Building Code should be adequate for normal facilities.

This data indicates that Kerman is located in a lower risk area in terms of earthquake activity. Building standards contained in the Uniform Building Code for Zone II should be adequate for protection from earthquake events in Kerman.

Earthquakes

Although Fresno County does not have any major faults within its boundaries, Kerman has been affected by earthquakes in the past. The most notable earthquake in the area occurred in May, 1983. An earthquake with a measured magnitude of 6.7 on the Richter scale (Rs) occurred near the City of Coalinga about 45 miles southwest of Kerman. The earthquake produced a ground motion which caused widespread damage to the City of Coalinga. Although no damage was reported in Kerman, the quake was strongly felt by local residents. The Coalinga earthquake and aftershocks were not associated with the San Andreas Fault as most people believed, but rather, occurred in the deeply buried Sierran Block Boundary zone, which is thought to be made up of complex thrust fault systems.

Studies for the Chem Waste Kettleman Hills hazardous waste facility determined that the thrust fault poses the greatest seismic threat to the region. Maximum credible earthquakes (MCE's) from this fault have been predicted to range from 6.5 to 7.0 on the Richter scale. The San Andreas Fault, located further to the west also poses a seismic risk.

As stated above, the City of Kerman is located in the V1 seismic zone, which is characterized by a relatively thin section of sedimentary rock overlying a granitic basement. Ground motion that could result from an earthquake would be high, but the distance to the faults that are the expected sources of the shaking is sufficiently great that the effects should be minimal.

Police Protection

Crime prevention has become the number one issue on the minds of the public. The increases in robbery, gang activity, graffiti, auto-theft, etc. have led the public's request for more police officers on the street. In 2007, Kerman had eighteen full time police officers, or about 1.43 officers per 1,000 persons. The City strives to maintain a target

ratio of 1 officers per 700 residents. In order to maintain this service level for the years 2017 and 2027, Kerman will be required to staff 33 and 58 officers respectively (estimates use high population projections).

Fire Hazards

The planning area is characterized by both the urbanized portions of Kerman and surrounding agricultural fields. The City is served by the North Central Fire Protection District. The District maintains its headquarters on the west side of Kerman. This station is staffed by two full-time personnel and two medical personnel. In 2005, 75 to 82 percent of calls to the fire district consisted of medical emergencies. The urbanized portions of Kerman are served by City water lines for fire suppression and domestic purposes. Water pressure in most areas is about 40-55 pounds per square inch. Further information regarding fire safety is included in Part 2 of the General Plan.

Flooding

The Federal Emergency Management Agency, a federal agency charged with mapping flood prone areas throughout the United States, identifies no area within Kerman as being flood prone - subject to floodwaters from a 100-year intensity storm. However, certain areas within the city are subject to localized flooding and ponding of storm waters. Furthermore, new development, if not designed properly, can magnify drainage problems. New development must conform to standards and plans contained in the Kerman Stormwater Drainage Master Plan. The Plan directs the location of new stormwater drainage lines, mains, and ponding facilities.

Hazardous Land Use Relationships

Identification of existing hazardous land uses is also important to the safety of the citizens of Kerman. There are several uses within the City that generate a "risk" factor. These uses include industrial operations on the south side of the city, the state highways which carry large volumes of truck traffic, the railroad, and the wastewater treatment plant. Relationships between land use types must be considered, especially when locating residential development.

The Land Use Element has eliminated most of the potential land use conflicts associated with the above uses by insuring that surrounding properties are designated for uses that will not conflict with the use. For instance, new industrial development will be permitted only adjacent to, and south of the railroad tracks. This area is downwind of all residential development in Kerman. The industrial area, in turn, provides a buffer between Kerman's residential areas and the wastewater treatment plant, further reducing potential land use conflicts.

A hazardous land use relationship that is more difficult to address involves trucks carrying hazardous materials along the State highways. Kerman has two State highways

(Highways 145 and 180) that carry a large amount of truck traffic. It is difficult to ascertain the number of trucks carrying hazardous waste. The American Avenue landfill lies about seven miles southwest of Kerman. Chemical Waste, Inc. operates a hazardous waste collection facility at Kettleman City, about 55 miles south of Kerman. The Land Use Element has addressed this issue by directing residential development away from the state highways.

COMMUNITY GOALS

The following goals have been used as a guideline in the preparation of this Element:

1. PREVENT THE LOSS OF LIFE AND PERSONAL PROPERTY DUE TO NATURAL AND MAN-MADE HAZARDS, INCLUDING EARTHQUAKES, FLOODS AND FIRES.
2. SAFEGUARD THE ECONOMIC RESOURCES OF THE CITY FROM LOSSES DUE TO NATURAL AND MAN-MADE HAZARDS, INCLUDING EARTHQUAKES, FLOODS AND FIRES.
3. PROMOTE CITIZEN AWARENESS OF THE IMPLICATION OF NATURAL AND MAN-MADE HAZARDS WHICH EXIST IN THE REGION.
4. SAFEGUARD PUBLIC SAFETY AND THE PROTECTION OF PROPERTY BY EDUCATING AND INVOLVING THE PUBLIC IN ALL THE TENETS OF COMMUNITY ORIENTED POLICING AND PROBLEM SOLVING AND THEREBY REDUCING CRIME.

ISSUES, POLICIES, AND ACTION PROGRAMS

This portion of the Element establishes policies and implementing action programs that will implement the Safety Element's goals - a safe environment for the citizens of Kerman.

The first part of the Plan identifies issues relating to safety in the City of Kerman. The second part contains policies that will guide future decisions regarding these issues. The third part consists of an Action Program. These programs will serve to implement the policies. For example, hazards related to substandard buildings are an issue. The action program will provide a program for the targeting of substandard buildings for renovation or removal.

A. SEISMIC AND GEOLOGIC SAFETY

The City of Kerman is located in an area that is seismically active, however, the potential for dangerous seismic activity is slight. The Five Counties Seismic Safety Element recommends that new construction conform to standards for Zone 2, as defined by the Uniform Building Code.

1. POLICY: The City shall insure that all new and rehabilitated structures are constructed to meet adequate building standards.

ACTIONS:

a. *The City of Kerman shall adopt building code standards for Seismic Zone 2 as described in the Uniform Building Code.*

b. *The City shall continue the abatement/rehabilitation of unreinforced masonry buildings. The City shall use funding programs contained in the Housing Element to assist qualified low income families in the process of rehabilitating their homes or renting or purchasing a new dwelling.*

2. POLICY: The City shall review the State Mining and Geology Board's publications which define Special Studies Zones for areas along fault lines.

ACTION: *The Planning Department shall review State Mining and Geology maps as they are updated.*

3. POLICY: The City of Kerman shall continue the abatement/rehabilitation of dangerous buildings as defined by the Uniform Housing Code.

ACTION: *The building department shall identify dangerous buildings and target them for abatement or rehabilitation, through the process outlined in the Uniform Housing Code.*

B. POLICE PROTECTION

Crime prevention and public safety is the most important function of a city to many citizens. Kerman has aimed to maintain a ratio of one police officer per 700 residents. The City has fallen slightly behind this goal recently. Concern has been voiced that new development has not been required to pay its fair share in terms of police services.

1. POLICY: The City shall actively involve citizens in crime prevention and public safety awareness.

ACTION: *The City shall continue operation of the Neighborhood Watch,*

Community Oriented Policing and Problem Solving (COPPS), Problem Oriented Policing (POP), Crime Free Multi-Family Housing (CFMFH) program, and establish the Special Investigations Division (SID) to attack drug abuse and gang issues.

2. POLICY: To ensure that the police department has the depth of personnel to operate the necessary programs (listed above), Kerman should maintain a ratio of one officer per 700 citizens.

ACTION: The City shall increase its sales tax base in order to fund adequate police personnel and equipment. .

C. FIRE SAFETY

Kerman has established a good record in terms of fire safety. The entire planning area is generally located within three minutes of the Kerman station of the North Central Fire District. The City Council recently enacted legislation requiring new or remodeled structures over 5,000 square feet to install fire sprinklers. The City has established Fire Development Impact Fees to fund the potential development of an additional Fire Station and equipment in the Kerman area to address the future impacts of growth.

1. POLICY: The City of Kerman shall coordinate with the North Central Fire District through Kerman's site plan review process and the State's environmental review process to insure that future development does not impose a burden on their services. North Central, with input and review from the City, should establish a 20-year Capital Improvement Plan (CIP) for a fire ladder truck and potential fire station/equipment in the Kerman area. The City should continue to charge Development Impact Fees for new growth to accommodate the CIP.

ACTION: The City of Kerman shall coordinate with the North Central Fire District through Kerman's site plan review process and the State's environmental review process to insure that future development does not impose a burden on their services. North Central with input and review from the City should establish a 20-year Capital improvement plan for a fire ladder truck and potential fire station/equipment in the Kerman area.

2. POLICY: The City of Kerman shall coordinate with North Central Fire District to provide prevention and public education to the residents to reduce the demand for fire protection services.

- ACTION:* *The City shall contact the Fire District to initiate a fire prevention education program with the Kerman-Floyd School District.*
3. POLICY: The City shall require that yards and lots be maintained free of weeds and debris.
- ACTION:* *The North Central Fire District shall send annual abatement letters to property owners who have properties where weed and debris build-up pose a public safety problem.*
4. POLICY: The City shall work to improve the response capabilities of emergency crews.
- ACTION:* *a. During the review of subdivisions, the City shall ensure the new street names are continuations of existing streets for streets that are aligned, and that addresses are logically assigned. The Public Works Department shall periodically check street signs to ensure they are clearly visible and legible.*
- b. During subdivision review the City shall ensure that all subdivisions, except for cul-de-sac streets have a minimum of two egress/ingress points.*
- c. Development impact fees shall be charged on all new development for construction and equipment for a second fire station in the Kerman area to insure a 5 minute response time.*

D. HAZARDOUS LAND USE RELATIONSHIPS

Relationships between land use types should also be considered especially when locating residential development and other sensitive land uses, such as schools, hospitals, and convalescent homes. There are many hazardous uses that would not be appropriate adjacent to sensitive land uses. For example, the Land Use Element will ensure that new residential development is not permitted south of California Avenue. This will prevent conflicts with the industrial uses and commercial service uses and the Southern Pacific Railroad. Residential development will also be discouraged along the state highways in order to reduce exposure to hazardous materials, carried by trucks and excessive noise levels.

1. POLICY: Residential development in close proximity to industrial zones and the wastewater treatment plant shall be avoided. Development adjacent to the wastewater treatment plant shall be limited to industrial uses.

- ACTION: Adoption of the Land Use Element prevents residential development from encroaching too close to industrial zones and limits development adjacent to the wastewater treatment plant to industrial uses.*
2. POLICY: Residential land uses shall be limited adjacent to State Highway 145 and State Highway 180.
- ACTION: Adoption of the Land Use Element and Land Use Map prevents residential development from fronting onto State Highways 180 and 145, south of California and north of Whitesbridge Road.*
3. POLICY: Businesses that use, produce, or generate any type of hazardous materials shall be conducted in a safe manner.
- ACTION: The City shall require that proposals for developments using, producing, or generating hazardous materials, such as cold-storage facilities include an emergency preparedness plan. All new industrial uses shall be required to prepare and file a Business Plan as required by the Fresno County Health Department.*

CONCLUSION

There are a variety of hazards that can adversely affect life and property in Kerman, however, compared to many other communities in California, Kerman is a relatively "safe" place to live. Occurrences of natural disasters such as earthquakes, fires and floods cannot be controlled by the City, however, Kerman can minimize the impacts of these events by preparing for them in advance. Implementation of adequate building standards, appropriate land use designations, adequate fire protection services and preparation of emergency plans are just a few ways in which the City can provide a safer environment for its citizens. Implementation of the Safety Element's policies and action programs will contribute to and maintain the quality of life that exists in the City of Kerman.