
PUBLIC SAFETY

STATUTORY REQUIREMENTS

State of California law requires that a safety element be prepared as part of a General Plan. Government Code §65302(g) stipulates that (excerpts):

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..., and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, peak load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

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.

[**Note:** This provision also applies to Community Plans embedded in a countywide General Plan.]

CONTEXT

The University Community planning area is not generally prone to seismic hazards, and the probability of ground shaking in the region is low. Geologic hazards associated with unstable soils, such as ground subsidence, liquefaction potential, unstable slopes, and expansive soils are considered in building design requirements and site preparation permits, many of which are based on requirements of the California Building Code (Title 24, CCR).

Soil conditions throughout the University Community planning area are not consistent. As development in the University Community planning area continues over time, geologic and soil conditions can vary significantly due to an alteration of topography, an increase of impervious surfaces creating new drainage paths, increased groundwater withdrawal or reduced recharge, unknown seismic faults, and the simple presence of additional people and structures.

The University Community planning area is not prone to hazards associated with 100-year flood plains. However, significant development and construction activity associated with the proposed University Community will be occurring around the Fairfield and Le Grand Canals, which would increase the potential for structural damage to the canals. In addition, development throughout the University Community planning area will create additional impervious surfaces, potentially exacerbating flooding situations.

The University Community planning area has historically been used for agricultural purposes, and there is the potential that the environmental quality of the University Community planning area has been adversely affected by ongoing pesticide and herbicide application or unknown hazardous materials disposal. Soil and/or groundwater at the University Community planning area may be contaminated as a result of past activities, which could create a health hazard during site construction. Hazardous materials and hazardous wastes are regulated at various levels of federal, state, and local governments by numerous agencies.

The University Community planning area is located in a fire environment described by the California Division of Forestry as mixed interface, and is within a State Responsibility Area (SRA), indicating that fire protection responsibilities are through CDF and the Merced County Fire Department. Because the University Community planning area is located within an SRA, in accordance with Public Resources Code 4291, development in the area would be required to comply with fire defensibility measures, such as fire breaks around structures, clearance of combustible vegetation, and roadway standards to ensure emergency access and egress.

OVERVIEW

Social sustainability demands a baseline level of public safety to prevent injury to the physical well-being of a population by seismic activity, geologic instability, flooding, or exposure to hazardous materials. Measures to provide public safety for the protection of the community from unreasonable risks will be implemented on hazards, such as seismic, geologic, flooding, and hazardous materials. Geological and seismic hazards will be mitigated through sites studies to determine the characteristics of soils and geology and engineering design of structures in response to these. Flooding policies address the integrity of levees

along Fairfield and Le Grand Canals to protect the new Community by strengthening the levees if necessary and by respecting existing MID easements along the canals.

Because public safety risks could be related to historical use of hazardous agricultural chemicals, a preliminary site investigation and construction observation measures will seek to identify and remediate any residual chemicals if present in the soil. A Hazardous Materials Management Plan will identify measures to reduce incidences exposing residents and workers for various land uses and transportation conditions. The Plan will reflect federal and state law and conform to the County's existing environmental health policies programs. Adequate hazardous materials policies will be adopted to ensure protection of residents.

GOALS, OBJECTIVES, AND POLICIES

The following section presents the goals, objectives, policies, and implementation programs for seismic, geologic, flooding, and hazardous materials concerns at the University Community planning area.

PROTECTING THE COMMUNITY FROM GEOLOGIC AND SOILS RISKS

Goal

Ensure that the University Community complies with, at minimum, the soil investigation and building design requirements of the California Building Standards Code (California Code of Regulations, Title 24), and follows a common grading plan that will conserve soils resources and not affect off-site resources.

Objective

S 1.0

Ensure that on-site geotechnical investigations are performed prior to development, this information is available to the public, and used in the design of the project.

Policies

S 1.1

Require that a site-specific soil and geotechnical investigation be performed prior to development for individual construction projects to determine the classification and engineering capabilities and constraints of the soil at each building site. The standards used

during the site investigation shall be, at minimum, the California Building Standards Code, and any other applicable professional standards and Uniform Codes. *(Imp 2.5, 2.7, 2.8)*

S 1.2

Require development applications to include a report detailing the types of soil and locations, erosion potential or soil engineering constraints/opportunities, and erosion control options. Mitigation plans must address methods to be used during all phases of site development, implementation, and operation. *(Imp 2.5, 2.7, 2.8)*

S 1.3

Make site-specific soil and geotechnical information available to the public, developers, and consultants. *(Imp 2.7, 2.8)*

PROTECTING THE COMMUNITY FROM FLOOD HAZARDS

Goal

Protection of the University Community from potential flood hazards associated with the Fairfield Canals and Grand Canals.

Objective

S 2.0

To protect the University Community from levee failure and flooding through reinforcement of the canals and establishing a development setback.

Policies

S 2.1

Ensure that the structural integrity of the on-site irrigation canals is adequate to support projected water flows within the canals. If necessary, concrete liners can be installed in the canals, or the banks of the canal can be fortified or raised. A qualified engineer should perform structural stability investigations, and make recommendations regarding reinforcement options. This should be completed in concert with the stormwater drainage system design. *(Imp 2.8, 3.3)*

S 2.2

Development at the University Community should not occur within an agreed-upon distance (County and Merced Irrigation District to decide) from the toe of the

canal's levee in order to protect the structural integrity of the canal system. MID currently maintains a 150-foot-wide easement along the Le Grand Canal, a 100-foot-wide easement along the Fairfield Canal, and a 60-foot-wide easement along the Fairfield Lateral "A" and the Dunn Lateral. *(Imp 2.5, 2.8, 3.3)*

S 2.3

Work with MID to identify appropriate landscape and development plans for MID canal corridors through the University Community, in order to ensure the long-term operational viability of the canals as irrigation water conveyance facilities. In particular, ensure that trees and other landscaping do not diminish the structural integrity of the canal levees and do not interfere with regular operation and maintenance. *(Imp 2.5, 2.8, 3.3)*

PROTECTING THE COMMUNITY FROM HAZARDOUS MATERIALS

Goal

Mitigation of any unknown hazardous materials that would be a hazard to public health and safety and the environment.

Objective

S 3.0

To identify the potential for soil or groundwater contamination at the University Community area.

Policies

S 3.1

Conduct a preliminary site investigation in accordance with ASTM Standard Practice E 1527-00 (or the most current site assessment standard) by an environmental professional to determine the potential for on- and off-site hazardous materials contamination, prior to site preparation and construction activities. *(Imp 2.7, 2.8)*

S 3.2

If, during the preliminary site investigation, or during construction activities following completion of the site investigation, evidence of hazardous materials contamination is observed or suspected through either obvious or implied measures (i.e., stained or odorous soil, or oily or discolored water), construction activities shall cease in the affected area and an environmental professional shall assess the situation. If necessary, the

environmental professional shall prepare a sampling plan to collect soil and/or groundwater samples to determine whether or not the site has been adversely affected by past activities. The samples shall be analyzed for the contaminants determined to be a potential health concern by the environmental professional. Depending on the nature of the contamination (if any), the Merced County Division of Environmental Health and appropriate federal and state agencies shall be notified. *(Imp 2.7, 2.8)*

Goal

The proper use, transport, storage, and disposal of hazardous materials and wastes in accordance with federal, state, and County regulations.

Objective

S 4.0

To provide the residents of the University Community with information necessary to safely manage hazardous materials.

Policies

S 4.1

Prepare a "Hazardous Materials Management Plan" to provide residential, commercial, and industrial properties with necessary information regarding the use, transportation, storage, and disposal of hazardous materials and hazardous wastes within the University Community and Merced County. *(Imp 5.1)*

S 4.2

Require that all projects within the University Community comply with the Hazardous Materials Management Plan and the programs established by the Merced County Division of Environmental Health. *(Imp 2.5, 2.7)*

PROTECTING THE COMMUNITY FROM WILDLAND FIRE RISKS

The Merced County General Plan in its wildland fire policy section (Public Safety Chapter, Goal 5) incorporates policies to minimize the risk of injury and property damage resulting from wildland and urban fires. These policies include establishing water supplies for firefighting, installing sprinkler systems where applicable, providing adequate access to rural areas, and maintaining "clear zones" around new and existing residential structures. These shall be applicable to the University Community.

Goal

A Community that is protected from the risks of wildland fires.

Objective

S 5.0

To establish programs for brush clearance, use of building materials and landscape, and other techniques to reduce the risks of wildland fires.

Policies

S 5.1

Implement brush clearing and other fire suppression programs in adjacent lands, thereby reducing the possibility for the encroachment of wildland fires onto inhabited areas (consistent with maintenance programs for important plant and animal habitats). (Imp 2.5, 2.7, 5.1, 5.3)

S 5.2

Encourage the use of non-combustible roofing materials within 200 feet from an area designated a very high hazard severity zone. (Imp 2.5, 2.6)

S 5.3

Prohibit the planting of “highly combustible” landscape materials, such as pines or eucalyptus trees, along the University Community’s border within a very high severity zone for brush fires. (Imp 2.5, 2.7)

NOISE

STATUTORY REQUIREMENTS

California Government Code (§65302(f)) mandates that each General Plan include a noise element as follows [Note: Excerpts only; noise sources not applicable to the planning area have been deleted such as railroads and airports]:

A noise element that shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable...current and projected noise levels for...highways and freeways, primary arterials and major local streets, local industrial plants, including, but not limited to, railroad classification yards, and other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of these sources... The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise. The noise element shall

include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state’s noise insulation standards.

The County General Plan includes a Noise Chapter that identifies current and projected noise levels for the noise sources in Merced County as specified by the Government Code. The Noise Chapter is the planning document that provides goals, objectives, and policies to ensure that future noise and land use conflicts are minimized through application of land use compatibility criteria and participation in the discretionary review process. The Land Use Compatibility Guidelines (Figure IV-2 of the Noise Chapter) identify the noise levels that would be acceptable for planned land uses and specify the level of analysis necessary to identify noise reduction requirements. These guidelines would be applied on a project-by-project basis through discretionary review. The established and adopted goals, objectives, policies, and implementation strategies of the Noise Chapter are the basis for the components of the University Community Plan.