



# HEALTH AND SAFETY ELEMENT

## INTRODUCTION

This element provides the policy context for protecting County residents and properties from unreasonable risks associated with hazards. People and communities are subject to potential harm from natural forces, such as flooding and earthquakes, as well as from human-caused hazards such as noise and aviation. Balancing human safety with environmental protection poses an urgent challenge for decision-makers. For example, by directing human activities to areas that are less susceptible to flooding and wildfire, the County can reduce risks to human safety. Similarly, by controlling the extent and intensity of certain land uses and activities in sensitive natural areas, the County can dramatically reduce negative impacts on unique natural resources. Goals and policies in this element are organized under the following headings:

- Geologic and Seismic Hazards
- Flood Hazards
- Fire Hazards
- Airport Safety
- Hazardous Materials
- Adaptation to Climate Change
- Noise
- Environmental Justice

## GEOLOGIC AND SEISMIC HAZARDS

The County has a responsibility to guide the location and type of new development in the County to minimize risks posed by geologic and seismic hazards. As the County moves forward with plans for economic growth and urbanization, concerns for human safety will ensure that the location of new development and improvement of existing facilities minimizes the risk or geologic and seismic hazards. The policies in this section address the geologic and seismic hazards of Merced County.

<b>Goal HS-1</b>	Minimize the loss of life, injury, and property damage of County residents due to seismic and geologic hazards. <i>[Source: New Goal]</i>
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**Policy HS-1.1: Structure Location and Compliance (RDR)**

Require that all new habitable structures be located and designed in compliance with the Alquist-Priolo Special Studies Zone Act and related State earthquake legislation.

*[Source: Existing Merced County GP, Revised Policy SAF.1.1]*

**Policy HS-1.2: Financial Assistance for Seismic Upgrades (RDR/FB)**

Support efforts to obtain financial assistance from Federal and State agencies in order to implement corrective seismic safety measures required for existing County buildings and structures.

*[Source: New Policy, GPU Consultants]*

**Policy HS-1.3: Dam Inundation Areas (RDR)**

Require all new structures located within dam inundation areas to conform to standards of dam safety as required by the State Division of Safety of Dams. *[Source: New Policy, GPU Consultants]*

**Policy HS-1.4: Ensure Earthquake Resistant Design (RDR)**

Require earthquake resistant design for proposed critical structures such as hospitals, fire stations, emergency communication centers, private schools, high occupancy buildings, bridges and freeway overpasses, and dams that are subject to County permitting requirements. *[Source: Existing GP Policy SAF.1.2]*

**Policy HS-1.5: Public Education (RDR)**

Encourage educational programs to inform the public of earthquake dangers in Merced County. *[Source: Existing GP Policy SAF.1.3]*

**Policy HS-1.6: Landslide Areas (RDR)**

Prohibit habitable structures on areas of unconsolidated landslide debris or in areas vulnerable to landslides. *[Source: Existing Merced County GP, Revised Policy SAF.3.1, revised by GPU Consultants]*

**Policy HS-1.7: Hillside Development (RDR)**

Discourage construction and grading on slopes in excess of 30 percent. *[Source: New Policy, GPU Consultants]*

**Policy HS-1.8: Grading Standards (RDR)**

Require that the provisions of the International Building Code be used to regulate projects subject to hazards from slope instability. *[Source: Existing Merced County GP Revised Policy SAF.3.2]*

**Policy HS-1.9: Unstable Soils (RDR)**

Require and enforce all standards contained in the International Building Code related to construction on unstable soils. *[Source: Existing GP Implementation SAF.1.4 and Revised Implementation Program SAF.3.1]*

## FLOOD HAZARDS

Economic growth and prosperity in Merced County is partially dependent upon Federal, State, and local agency cooperation on regional and local flood management systems. Large areas of Merced County continue to be subject to inundation during floods, with approximately 380,010 acres in the FEMA floodplain. The physical risks associated with potential flooding and regulatory requirements for floodplain management are important aspects of future land use decisions throughout the County, and guide the local and community-level emergency response needs.

Recent legislation has strengthened flood protection regulations in California. This legislation requires the California Department of Water Resources and Central Valley Flood Protection Board to prepare and adopt a Central Valley Flood Protection Plan (CVFPP) by 2012. The legislation also establishes certain flood protection requirements for local land use decision-making based on the CVFPP. This law sets a higher standard for flood protection for the San Joaquin Valley area. It sets an urban level of flood protection necessary to withstand a 1 in 200 chance of a flood event occurring in any given year (200-year flood) for areas developed or planned to have a population of at least 10,000. It also requires the County to collaborate with cities to develop a flood emergency response plan. The policies in this section address flooding hazards in Merced County.

### Goal HS-2

Minimize the possibility of loss of life, injury, or damage to property as a result of flood hazards. *[Source: New Goal, GPU Consultants]*

#### **Policy HS-2.1: Floodplain Management Priorities (RDR/MPSP)**

Prepare and adopt a floodplain management program in flood hazard areas that gives priority to regulation of land uses over development of structural controls as a method of reducing flood damage. *[Source: New Policy, GPU Consultants]*

#### **Policy HS-2.2: Countywide Flood Emergency Plan (RDR/MPSP)**

Coordinate with the cities in Merced County to develop a Countywide flood emergency plan that is consistent with city general plans. *[Source: New Policy, GPU Consultants, addresses SB 5]*

#### **Policy HS-2.3: Countywide Flood Control Authority (MPSP/IGC)**

Work with the cities in Merced County to establish a Countywide flood control authority to coordinate efforts and develop opportunities for expanded Federal funding. *[Source: New Policy, Ag Focus Group Comment]*

#### **Policy HS-2.4: Coordination to Improve Flood Control (FB/IGC)**

Coordinate with State and local flood management agencies to develop funding mechanisms to finance the design and construction of flood facilities. *[Source: New Policy, GPU Consultants]*

**Policy HS-2.5: Flood Control Project Funding (FB)**

Support the efforts of local districts and communities in obtaining funding for local flood control projects. *[Source: Existing GP Implementation AG.4.6, revised]*

**Policy HS-2.6: Flood Risk Consideration (RDR)**

Prohibit new development in existing undeveloped areas (i.e., area devoted to agriculture or open space that is not designated for development) protected by a State flood control project without appropriately considering significant known flooding risks and taking reasonable and feasible action to mitigate the potential property damage to the new development resulting from a flood. *[Source: New Policy, GPU Consultants, addresses AB 162]*

**Policy HS-2.7: Finding of Flood Protection for New Development (RDR)**

The County shall not enter into a development agreement, approve any building permit or entitlement, or approve a tentative or parcel map unless it finds one of the following:

- a) The flood control facilities provides 200-year level of protection in urban and non-urban areas consistent with the current Central Valley Flood Protection Plan;
- b) Conditions imposed on the development will protect the property at a 200-year level of protection in urban and non-urban areas consistent with the current Central Valley Flood Protection Plan; or
- c) The local flood management agency has made “adequate progress” on the construction of a flood protection system which will result in protection equal or greater than the 200-year flood event in urban and non-urban areas consistent with the current Central Valley Flood Protection Plan. *[Source: New Policy, GPU Consultants, addresses SB 5]*

**Policy HS-2.8: Floodwater Diversion (RDR)**

Require new flood control projects or developments within areas subject to 100- and 200-year frequency floods are done in a manner that will not cause floodwaters to be diverted onto adjacent property or increase flood hazards to property located elsewhere. *[Source: Existing GP Policy SAF.4.3, revised]*

**Policy HS-2.9: Minimize Public Facility Impacts (RDR/MPSP)**

Encourage all agencies that operate public facilities, such as wastewater treatment plants, gas, electrical, and water systems within areas subject to 100- and 200-year frequency floods to locate and construct facilities to minimize or eliminate potential flood damage. *[Source: Existing GP Policy SAF.4.4]*

**Policy HS-2.10: Essential Facility Location (RDR)**

Prohibit the construction of essential facilities in the 100- and 200-year floodplain, unless it can be demonstrated that the facility can be safely operated and accessed during flood events. *[Source: New Policy, GPU Consultants]*

**Policy HS-2.11: National Flood Insurance Program (SO)**

Continue to participate in the National Flood Insurance Program (NFIP). *[Source: New Policy, GPU Consultants]*

**Policy HS-2.12: Relocation Assistance (IGC)**

Support State and local flood management agencies to provide relocation assistance or other cost-effective strategies for reducing flood risk to existing economically disadvantaged communities located in non-urbanized areas. *[Source: New Policy, GPU Consultants, addresses SB 5]*

**Policy HS-2.13: Open Space Use (RDR)**

Encourage open space uses in flood hazard areas. *[Source: Existing Merced County GP Revised Policy SAF.4.5]*

**Policy HS-2.14: Multi-Purpose Flood Control Projects (RDR)**

Encourage multi-purpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. *[Source: New Policy, GPU Consultants]*

**Policy HS-2.15: Flood Control Design (RDR)**

Encourage flood control designs that respect the natural topography and vegetation of waterways while retaining dynamic flow and functional integrity. *[Source: New Policy, GPU Consultants]*

**Policy HS-2.16: Adapting Infrastructure to Climate Change (RDR/MPSP)**

Encourage increased stormwater and flood protection infrastructure capacity in order to accommodate changes in precipitation and extreme weather events. *[Source: MCGPU Alternatives Report, Policy Option CC-2.f]*

**Policy HS-2.17: Flood Control Facility Construction (RDR)**

Permit the construction of County flood control facilities in existing developments located within flood hazard areas to proceed only after a complete review of the environmental effects and project costs and benefits. *[Source: New Policy, GPU Consultants]*

**Policy HS-2.18: Public Awareness Programs (PI)**

Prepare public awareness programs to inform the general public and potentially affected property owners of flood hazards, potential dam failure inundation, and evacuation plans. *[Source: New Policy, GPU Consultants]*

**Policy HS-2.19: Mutual Aid Resource (RDR)**

Coordinate and use mutual aid resources to augment local resources in order to perform rescue operations, secure utilities and inundated areas, and control traffic in event of dam failure. *[Source: Existing GP Policy SAF.2.2, Existing GP Implementation SAF.2.2]*

**Policy HS-2.20: Multi-Hazard Functional Plan Update (RDR)**

Prepare and include provisions for mutual aid efforts within the County Multi-Hazard Functional Plan. *[Source: Existing GP Policy SAF.2.2, Existing GP Implementation SAF.2.2]*

**FIRE HAZARDS**

Both urban and wildland fire hazards exist in Merced County, creating the potential for injury, loss of life, and property damage. Urban fires primarily involve the uncontrolled burning of residential, commercial, or industrial structures due to human activities. As the County continues to experience increased urbanization through new development and expanded road systems, the need for improved safety planning will intensify. While new development will bring new challenges for fire safety, it will also bring new opportunities to enhance and expand existing services and facilities to serve the County's growing demand for fire protection services. The policies in this section address fire hazards in Merced County.

**Goal HS-3**

Minimize the exposure of County residents and public and private property to the effects of urban and wildland fires. *[Source: New Goal, GPU Consultants]*

**Policy HS-3.1: Adequate Water Supplies for Fire Suppression (RDR)**

Require adequate water supplies be available for fire suppression prior to occupancy of any structure in urban areas where a public water system does not exist prior to occupancy of any structures located in the County. *[Source: Existing Merced County GP, Revised Policy SAF.5.2]*

**Policy HS-3.2: Minimum Peak-load Water Supply Standards (RDR)**

Establish minimum peak-load water supply standards for developments with public water systems. *[Source: Existing GP Policy SAF.5.1]*

**Policy HS-3.3: Sprinkler Systems (RDR)**

Require sprinkler systems in areas where a fire department determines alternate fire protection measures are not adequate or to comply with State law. *[Source: Existing GP Policy SAF.5.3]*

**Policy HS-3.4: Smoke Detectors (RDR)**

Encourage installation and maintenance of smoke detectors in existing residences and commercial facilities that were constructed prior to the requirement for their installation. *[Source: New Policy, GPU Consultants]*

**Policy HS-3.5: Vegetation Clear Zones (RDR)**

Encourage and maintain vegetation "clear zones" around new and existing residential structures in areas designated as having a high or extreme fire hazard severity and assist property owners in identifying how the clear zones should be maintained. *[Source: Existing Merced County GP Revised Policy SAF.5.6 and Existing GP Implementation SAF.5.3]*

**Policy HS-3.6: Weed Abatement (RDR)**

Encourage weed abatement programs throughout the County in order to promote fire safety. *[Source: New Policy, GPU Consultants]*

**Policy HS-3.7: Road Fire Buffers (RDR)**

Encourage fire buffers along heavily traveled roads within high and extreme hazard zones by thinning, disking, or controlled burning. Plan parks, golf courses, utility corridors, roads, and open space areas so they can serve a secondary function as a fuel break. *[Source: New Policy, GPU Consultants]*

**Policy HS-3.8: Cluster Development (RDR)**

Encourage cluster developments in areas identified as subject to high or extreme fire hazard in order to provide for more localized and effective fire protection measures, such as consolidations of fuel build-up abatement, firebreak maintenance, firefighting equipment access, and water service provision. *[Source: New Policy, GPU Consultants]*

**Policy HS-3.9: Building Permit Review (RDR)**

Require all buildings and structures to be constructed to fire safety standards prescribed in the Building Code and the County Fire Prevention Ordinance. Where minimum fire flow water pressure is not available to satisfy Fire Department standards, alternate fire protection measures shall be identified and incorporated into the development. *[Source: Existing GP Implementation SAF.5.1]*

**Policy HS-3.10: Emergency Equipment Access – New Development (RDR)**

Require safe all-weather access for fire and other emergency equipment as part of the subdivisions and building permit application review process. *[Source: Existing GP Policy SAF.5.4]*

**Policy HS-3.11: Emergency Equipment Access – Existing Development (RDR)**

Encourage the construction of safe all-weather access for fire and emergency equipment to serve existing residential uses in areas designated as having a very high fire hazard severity. *[Source: Existing GP Policy SAF.5.5]*

**Policy HS-3.12: Fire-Resistant Vegetation (RDR)**

Require that development in high fire hazard areas have fire-resistant vegetation, cleared fire breaks separating communities or clusters of structures from native vegetation, or a long-term comprehensive vegetation and fuel management program. *[Source: New Policy, GPU Consultants]*

**Policy HS-3.13: Uniform Fire Code (RDR)**

Require the Uniform Fire Code to be used as a guide for project-level fire prevention and suppression activities, including site access, water supply, fire protection systems, and the use of fire resistant building materials. *[Source: New Policy, GPU Consultants]*

## AIRPORT SAFETY

The aviation system of Merced County, consisting of four municipal airports and one County-administered airport, is a vital economic resource to be preserved, maintained,

and enhanced for future generations. While the promotion of compatible land uses around airports is necessary to address safety concerns, it has the added advantage of maintaining or expanding airport capabilities, improving delivery of products and services, and preserving previous investments. Encroachment due to incompatible land use is one of the greatest threats to increasing the capability and capacity of the County’s aviation system. The policies in this section address airport safety in Merced County.

<b>Goal HS-4</b>	Promote the safe operation of airports and the safety of Merced County residents by requiring that any new development within the airport area of influence be consistent with the requirements of the Merced County Airport Land Use Commission’s compatibility plan and compliant with Federal Aviation Administration regulations. <i>[Source: New Goal, GPU Consultants]</i>
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**Policy HS-4.1: Airport Land Use Compatibility Plan (RDR)**

Require that development around airports be consistent with the safety policies and land use compatibility guidelines contained in the Merced County Airport Land Use Commission’s adopted Airport Land Use Compatibility Plan. *[Source: New Policy, GPU Consultants]*

**Policy HS-4.2: Compliance with FAA Regulations (RDR)**

Require that development within the airport approach and departure zones is in compliance with Part 77 of the Federal Aviation Administration Regulations (FAA regulations that address objects affecting navigable airspace). *[Source: New Policy, GPU Consultants]*

## HAZARDOUS MATERIALS AND WASTE

Merced County has an aggressive program of tracking and inspecting hazardous materials and waste. The information about hazardous materials and wastes is important to future land use and growth management decisions. The County tracking system includes the collection of data related to underground storage tanks, hazardous material spill sites, and landfills. The policies in this section address the problem of hazardous materials and wastes, as well as the location, storage, transportation, and safety of such hazardous materials.

<b>Goal HS-5</b>	Protect Merced County residents, visitors, and property through providing for the safe use, storage, transport, and disposal of hazardous materials and wastes. <i>[Source: New Goal, GPU Consultants]</i>
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**Policy HS-5.1: Compliance with Safety Standards (RDR)**

Require that hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards. *[Source: New Policy, GPU Consultants]*

**Policy HS-5.2: Hazardous Material and Waste Transport (IGC)**

Coordinate with the California Highway Patrol to establish procedures for the movement of hazardous wastes and explosives within the County. *[Source: New Policy, GPU Consultants]*

**Policy HS-5.3: Incompatible Land Uses (RDR)**

Prohibit incompatible land uses near properties that produce or store hazardous waste. *[Source: New Policy, GPU Consultants]*

**Policy HS-5.4: Contamination Prevention (RDR)**

Require new development proposals to protect soils, surface water, and groundwater from hazardous materials contamination. *[Source: New Policy, GPU Consultants]*

**Policy HS-5.5: Household Hazardous Waste (PI)**

Continue to administer educational programs to inform the public about household hazardous waste and the proper methods of disposal. *[Source: New Policy, GPU Consultants]*

**Policy HS-5.6: Hazardous Waste Residual Repositories (RDR/MPSP)**

Prohibit hazardous waste residual repositories (as defined by the Merced County Hazardous Waste Management Plan) to be located in significant wetland and threatened species habitats or adjacent to State and Federal wildlife refuges or management areas. *[Source: Existing Merced County GP Revised Policy OS.1.12]*

## ADAPTATION TO CLIMATE CHANGE

Emissions of greenhouse gases into the atmosphere, predominantly as a result of the burning of fossil fuels, is increasing the potency of the greenhouse effect and leading to global climate change. The potential effects of climate change include sea level rise, saltwater intrusion, diminished water supply, increased wildfire risk, increased frequency and magnitude of flooding, habitat loss, and possible impacts to public health and the local economy, including agriculture. The policies in this section seek to protect the County from and facilitate adaptation to the potential effects of climate change.

<b>Goal HS-6</b>	Plan for the eventual impacts of climate change through adaptive management strategies and responses in order to mitigate climate change impacts while protecting the quality of life for current and future County residents. <i>[Source: New Goal, GPU Consultant]</i>
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**Policy HS-6.1: Development Restrictions in High Risk Areas (RDR) 🌐**

Prohibit development in areas that may be more severely impacted by climate change, including areas at high risk of wildfire or flooding, unless proper design mitigation is included in the project. *[Source: New Policy, California Attorney General's Office]*

**Policy HS-6.2: Climate Change Monitoring and Adaptation (RDR) 🌐**

Prepare an analysis that monitors the impacts of climate change and use adaptive management to develop new strategies and modify existing strategies to respond to the impacts of climate change. *[Source: New Policy, California Attorney General's Office]*

**Policy HS-6.3: New Agricultural Crops (RDR/PSR) 🌐**

Coordinate with University of California Cooperative Extension in efforts to identify new agricultural crop choices/varieties that accommodate a longer growing season and are resistant to heat, insects, and disease. Also identify agricultural production methods such as planting dates and irrigation methods to adapt to changes in the climate. *[Source: MCGPU Alternatives Report, Policy Option CC-2.g and CC-2.h, combined]*

**Policy HS-6.4: Public Health Facilities and Program (RDR) 🌐**

Support the expansion of public health facilities and programs that address increases in extreme weather events (e.g., heat waves) and reduced air quality. *[Source: MCGPU Alternatives Report, Policy Option CC-2.l]*

**Policy HS-6.5: Early Warning System (RDR) 🌐**

Prepare and maintain an early warning system for disease outbreaks and extreme heat events. *[Source: MCGPU Alternatives Report, Policy Option CC-2.n]*

**Policy HS-6.6: Emergency Planning (RDR) 🌐**

Support emergency planning for disease outbreaks and extreme weather events. *[Source: MCGPU Alternatives Report, Policy Option CC-2.m]*

**Policy HS-6.7: Public Awareness (PI) 🌐**

Support public awareness of water conservation measures, agricultural changes, storm and flood preparedness, forest/range fire protection, air quality issues, extreme weather events, and disease prevention. *[Source: MCGPU Alternatives Report, Policy Option CC-2.o]*

## NOISE

While most noise is common and frequently an integral part of daily living, exposure to excessive noise is often cited as a health problem in terms of general well-being and contribution to undue stress and annoyance. There are many sources of noise in the County including traffic on Interstate 5; State Routes 33, 59, 99, 140, and 152; local roads; railroad operations; aircraft operations; commercial uses; active recreation areas; and outdoor play areas.

The following noise level standards have been developed in order to quantify noise impacts in the County. Table HS-1 shows the noise level standards for noise-sensitive areas affected by traffic, railroad, or airport noise sources in the County. Table HS-2 shows the interior and exterior noise level standards for noise-sensitive areas affected by existing non-transportation noise sources in the County. In addition to these standards, the policies in this section address ways to reduce or eliminate existing and future conflicts between land uses and noise.

**TABLE HS-1  
Noise Standards for New Uses Affected by Traffic, Railroad, and Airport Noise**

New Land Use	Sensitive <sup>1</sup> Outdoor Area - Ldn	Sensitive Interior <sup>2</sup> Area - Ldn	Notes
All Residential	65	45	3
Transient Lodging	65	45	3,4
Hospitals & Nursing Homes	65	45	3, 4, 5
Theaters & Auditoriums	---	35	4
Churches, Meeting Halls, Schools, Libraries, etc.	65	40	4
	65	40	4
Office Buildings	65	45	4
Commercial Buildings	---	50	4
Playgrounds, Parks, etc.	70	---	
Industry	65	50	4

*Notes:*

1. Sensitive Outdoor Areas include primary outdoor activity areas associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.
2. Sensitive Interior Areas includes any interior area associated with any given land use at which noise-sensitivity exists and the location at which the County's interior noise level standards are applied. Examples of sensitive interior spaces include, but are not limited to, all habitable rooms of residential and transient lodging facilities, hospital rooms, classrooms, library interiors, offices, worship spaces, theaters. Interior noise level standards are applied within noise-sensitive areas of the various land uses with windows and doors in the closed positions.
3. Railroad warning horn usage shall not be included in the computation of Ldn.
4. Only the interior noise level standard shall apply if there are no sensitive exterior spaces proposed for these uses.
5. Since hospitals are often noise-generating uses, the exterior noise level standards are applicable only to clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

<b>TABLE HS-2                      Non-Transportation Noise Standards                      Median (L50) / Maximum (Lmax)<sup>1</sup></b>				
Outdoor Area <sup>2</sup>			Interior <sup>3</sup>	
Receiving Land Use	Daytime	Nighttime	Day or Night	Notes
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	---	35 / 55	4
Hospitals & Nursing Homes	55 / 75	---	35 / 55	5, 6
Theaters & Auditoriums	---	---	30 / 50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	---	35 / 60	6
Office Buildings	60 / 75	---	45 / 65	6
Commercial Buildings	55 / 75	---	45 / 65	6
Playgrounds, Parks, etc.	65 / 75	---	---	6
Industry	60 / 80	---	50 / 70	6

*Notes:*

1. These standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards in this table, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
2. Sensitive Outdoor Areas include primary outdoor activity areas associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.
3. Sensitive Interior Areas includes any interior area associated with any given land use at which noise-sensitivity exists and the location at which the County's interior noise level standards are applied. Examples of sensitive interior spaces include, but are not limited to, all habitable rooms of residential and transient lodging facilities, hospital rooms, classrooms, library interiors, offices, worship spaces, theaters. Interior noise level standards are applied within noise-sensitive areas of the various land uses with windows and doors in the closed positions.
4. Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
5. Since hospitals are often noise-generating uses, the exterior noise level standards are applicable only to clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
6. The outdoor activity areas of these uses (if any) are not typically used during nighttime hours.
7. Where median (L50) noise level data is not available for a particular noise source, average (Leq) values may be substituted for the standards of this table provided the noise source operates for at least 30 minutes. If the source operates less than 30 minutes the maximum noise level standards shown shall apply.

**Goal HS-7**

Protect residents, employees, and visitors from the harmful and annoying effects of exposure to excessive noise. *[Source: New Goal, GPU Consultants]*

**Policy HS-7.1: Noise Standards for New Land Uses (RDR)**

Require new development projects to meet the standards shown in Tables HS-1 and HS-2, at the property line of the proposed use, through either project design or other noise mitigation techniques. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.2: Acoustical Analysis Requirements (RDR)**

Require development project applicants to prepare an acoustical analysis as part of the environmental review process when noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels shown in Tables HS-1 and HS-2. The acoustical analysis shall:

- a) Be the responsibility of the applicant;
- b) Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics;
- c) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions;
- d) Estimate projected future (20 year) noise levels relative to the standards shown in Tables HS-1 and HS-2 at the property line of the proposed use;
- e) Recommend appropriate mitigation to achieve compliance with the adopted policies and standards in this element; and
- f) Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented at the property line. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.3: Existing Rural Sources (RDR)**

Discourage new noise sensitive land uses in rural areas with authorized existing noise generating land uses. *[Source: Existing Merced County GP, Revised Policy NOI.2.4]*

**Policy HS-7.4: New Noise Generating Uses (RDR)**

Require new commercial and industrial uses to minimize encroachment on incompatible noise sensitive land uses. Also consider the potential for encroachment by residential and other noise sensitive land uses on adjacent lands which could significantly impact the viability of the commercial or industrial areas. *[Source: Existing GP Policy NOI.2.2]*

**Policy HS-7.5: Noise Generating Activities (RDR)**

Limit noise generating activities, such as construction, to hours of normal business operation. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.6: Multi-Family Residential Noise Analysis (RDR)**

Require noise analyses be prepared for proposed multi-family, town homes, mixed-use, condominiums, or other residential projects where floor ceiling assemblies or party-walls shall be common to different owners/occupants to assure compliance with the State of California Noise Insulation Standards. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.7: Noise Impacted Residential Area Monitoring (RDR)**

Consider any existing residential area “noise impacted” if the exposure to exterior noise exceeds the standards shown in Table HS-2. Identify and evaluate potential noise impacted areas and identify possible means to correct the identified noise/land use incompatibilities. *[Sources: Existing GP Policy NOI.1.3, GPU Consultants]*

**Policy HS-7.8: Project Design (RDR)**

Require land use projects to comply with adopted noise standards through proper site and building design, such as building orientation, setbacks, natural barriers (e.g., earthen berms, vegetation), and building construction practices. Only consider the use of soundwalls after all design-related noise mitigation measures have been evaluated or integrated into the project or found infeasible. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.9: Transportation Project Construction/Improvements (RDR)**

Require transportation project proponents to prepare all acoustical analysis for all roadway and railway construction projects in accordance with Policy HS-7.2. Consider noise mitigation measures to reduce traffic and/or rail noise levels to comply with Table HS-1 standards if pre-project noise levels already exceed the noise standards of Table HS-1 and the increase is significant. The County defines a significant increase as follows:

<u>Pre-Project Noise Environment (Ldn)</u>	<u>Significant Increase</u>
Less than 60 dB	5+ dB
60 - 65 dB	3+ dB
Greater than 65 dB	1.5+ dB

*[Source: New Policy, GPU Consultants]*

**Policy HS-7.10: Aircraft Noise (RDR)**

Prohibit new noise-sensitive development within the projected future 60 dB Ldn noise contours of any public or private airports. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.11: Train Whistle Noise (IGC)**

Support improvements to at-grade crossings in urban areas in order to eliminate the need for train whistle blasts near or within communities. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.12: New Project Noise Mitigation Requirements (RDR)**

Require new projects to include appropriate noise mitigation measures to reduce noise levels in compliance with the Table HS-2 standards within sensitive areas. If a project includes the creation of new non-transportation noise sources, require the noise generation of those sources to be mitigated so they do not exceed the interior and exterior noise level standards of Table HS-2 at existing noise-sensitive areas in the project vicinity. However, if a noise-generating use is proposed adjacent to lands zoned for residential uses, then the noise generating use shall be responsible for mitigating its noise generation to a state of compliance with the standards shown in Table HS-2 at the property line of the generating use in anticipation of the future residential development. *[Source: New Policy, GPU Consultants]*

**Policy HS-7.13: Noise Exemptions (RDR)**

Support the exemption of the following noise sources from the standards in this element:

- a) Emergency warning devices and equipment operated in conjunction with emergency situations, such as sirens and generators which are activated during power outages. The routine testing of such warning devices and equipment shall also be exempt provided such testing occurs during daytime hours.
- b) Activities at schools, parks, or playgrounds, provided such activities occur during daytime hours.
- c) Activities associated with County-permitted temporary events and festivals. *[Source: New Policy, GPU Consultants]*

**ENVIRONMENTAL JUSTICE**

Merced County is committed to making land use, environmental, and resource protection decisions that are predictable and fair. The policies in this section ensure that Merced County will make decisions that are fair and equitable for every resident, regardless of age, race, culture, or income.

**Goal HS-8**

Ensure the fair treatment of all visitors, residents, employees, and property owners, regardless of age, race, culture, and income with respect to land use and environmental decisions. *[Source: New Goal, GPU Consultants]*

**Policy HS-8.1: Environmental Justice (SO)**

Require the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of land use and environmental laws, regulations, and policies. Ensure that no part of the community suffers disproportionately from adverse human health or environmental effects, and strive to provide all residents to live in a clean and healthy community. *[Source: New Policy, GPU Consultants]*

**Policy HS-8.2: Equal Public Participation (SP)**

Ensure that all community residents have meaningful opportunities to participate in all public decision-making processes, including Planning Commission and Board of Supervisor actions. *[Source: New Policy, GPU Consultants]*

**Policy HS-8.3: Equitable Distribution of New Public Facilities and Services (RDR)**

Promote the equitable distribution of new public facilities and services that increase and enhance the entire community's quality of life. *[Source: New Policy, GPU Consultants]*

## IMPLEMENTATION PROGRAMS

Health and Safety Element Implementation Programs						
		2013-2015	2016-2020	2021-2030	Annual	Ongoing
<b>Program HS-A: Floodplain Mapping (RDR, IGC, PSR)</b> Continue to participate in the Federal Flood Insurance Program and maintain flood hazard maps and other relevant floodplain data and revise/update this information as new State and Federal information becomes available. <i>[Source: New Program, GPU Consultants]</i>		✓				✓
Implements Which Policy	HS-2.11					
Responsible Department	Public Works					
Supporting Department	Planning and Community Development					
<b>Program HS-B: Floodplain Management Ordinance (RDR)</b> Update and periodically review the Special Flood Hazard Areas provisions contained in the County Code to ensure adequate protection for structures located within identified flood zones. <i>[Source: New Program, County Staff]</i>		✓				
Implements Which Policies	HS-2.1 through HS-2.19					
Responsible Department	Planning and Community Development					
Supporting Department	Public Works					
<b>Program HS-C: Countywide Flood Emergency Plan (RDR, MPSP)</b> Prepare, maintain, and implement a Countywide Flood Emergency Plan that is consistent with city adopted general plans. The plan should be prepared in coordination with cities in Merced County and address the requirements of Senate Bill 5. <i>[Source: New Program, GPU Consultants, addresses SB 5]</i>			✓			
Implements Which Policies	HS-2.2					
Responsible Department	Public Works					
Supporting Department	Planning and Community Development					
<b>Program HS-D: Countywide Flood Control Authority (MPSP/IGC)</b> Establish, in coordination with cities in Merced County, a Countywide Flood Control Authority that will be responsible for coordinating local flood control efforts and identifying opportunities for additional Federal funding. <i>[Source: New Program, Ag Focus Group Comment]</i>			✓			
Implements Which Policies	HS-2.3					
Responsible Department	Board of Supervisors					

Health and Safety Element Implementation Programs						
		2013-2015	2016-2020	2021-2030	Annual	Ongoing
Supporting Department	County Administration					
<b>Program HS-E: Dam Failure Evacuation Plan (MSPS)</b> Prepare and implement Dam Failure Evacuation Plan(s) and provide public information on dam failure preparedness. <i>[Source: New Program, GPU Consultants]</i>						
Implements Which Policies	HS-2.18, HS-2.19		✓			
Responsible Department	Fire Departments					
Supporting Department	Planning and Community Development Public Works					
<b>Program HS-F: Critical Area Flooding and Drainage Plan (MSPS)</b> Continue to implement the Critical Area Flooding and Drainage Plan. <i>[Source: New Program, GPU Consultants]</i>						
Implements Which Policies	HS-2.1 through HS-2.19					✓
Responsible Department	Public Works					
Supporting Department	Planning and Community Development					
<b>Program HS-G: Noise Sensitive Land Uses Near Airports (PS, MPSP)</b> The County shall review all noise sensitive land uses, including but not limited to hospitals, schools and residential dwellings, at the building permit or discretionary review stage for compatibility with noise exposure from any public use airport as identified in the current Airport Land Use Compatibility Plan. <i>[Source: Existing Merced County GP, Revised Implementation Program NOI.2.3]</i>						
Implements Which Policies	HS-4.1, HS-4.2, HS-7.1 through HS-7.12					✓
Responsible Department	Planning and Community Development					
Supporting Department	Public Works					
<b>Program HS-H: Household Hazardous Waste (PI)</b> Prepare, maintain, and implement a program to educate the public about household hazardous waste and the proper method of disposal. This can include updates to the County website, newsletters, and other informational materials. <i>[Source: New Program, GPU Consultants]</i>						
Implements Which Policies	HS-5.5		✓			
Responsible Department	Environmental Health Division					
Supporting Department	Planning and Community Development					

Health and Safety Element Implementation Programs						
		2013-2015	2016-2020	2021-2030	Annual	Ongoing
<b>Program HS-I: Climate Change Adaptation Analysis (RDR)</b> Prepare an analysis that monitors the impacts of climate change and use adaptive management to develop new strategies and modify existing strategies to respond to the impacts of climate change. <i>[Source: New Program, GPU Consultants]</i>		✓				
Implements Which Policies	HS-6.2					
Responsible Department	Planning and Community Development					
Supporting Department						
<b>Program HS-J: Agricultural Crop Identification Study (RDR/PSR)</b> Prepare an analysis that identifies new agricultural crop choices and varieties that accommodate a longer growing season and are resistant to heat, insects, and disease. Also identify agricultural production methods such as planting dates and irrigation methods to adapt to changes in the climate and protect the local economy. <i>[Source: New Program, GPU Consultants]</i>		✓				
Implements Which Policies	HS-6.3					
Responsible Department	University of California Cooperative Extension (through a contract with Merced County)					
Supporting Department	Agricultural Commissioner					
<b>Program HS-K: Noise Control Standards (RDR)</b> Update and enforce the Noise Control standards contained in the County Zoning Code as necessary to be consistent with the policies and standards within this element. <i>[Source: New Program, GPU Consultants]</i>						✓
Implements Which Policies	HS-7.1 through HS-7.12					
Responsible Department	Planning and Community Development					
Supporting Department	Environmental Health, Building Division					