7

HEALTH & SAFETY

Introduction

In order to maintain a high quality of life for Lake County residents, the County must minimize natural hazard risks (e.g., earthquakes, wildfire, flooding) as well as manmade hazards and nuisances (e.g., noise, poor air quality, hazardous materials). The Safety Element contains goal, policies, and implementation measures designed to protect the public health, safety, and welfare of the community from any unreasonable risks while minimizing damage to structures, property, and infrastructure resulting from natural and man-made hazards. Development in hazardous areas not only exposes land owners to unreasonable safety risks, but can also result in rescue workers being placed in unnecessary, dangerous situations.

Topic areas covered in this element are:

- General (Section 7.1),
- Geologic and Seismic Hazards (Section 7.2),
- Air Quality (Section 7.3),
- Airport Hazards (Section 7.4),
- Hazardous Materials (Section 7.5),
- Flood Hazards (Section 7.6),

- Urban and Wildland Fire Hazards (Section 7.7),
- Emergency Response (Section 7.8), and
- Implementation Measures (Section 7.9).

Key Terms

Alquist-Priolo Fault Zone. The Alquist-Priolo Earthquake Fault Zoning Act, passed in 1972, requires the State Geologist to identify zones of special study around active faults.

Critical Facilities and Infrastructure. Systems or facilities whose incapacity or destruction would have a debilitating impact on the County's ability to protect and serve the public health and safety. Applicable facilities include: telecommunications infrastructure, electric power systems, gas or oil facilities, banking and finance institutions, transportation networks, water supply systems, government services, and medical and emergency services.

Fault. A fault is a fracture in the Earth's crust that is accompanied by displacement between the two sides of the fault. An active fault is defined as a fault that has moved in the last 10,000 to 12,000 years (Holocene time). A potentially active fault is one that has been active in the past 1.6 million years (Quaternary period).

Federal Emergency Management Agency (FEMA). FEMA is the federal agency designated to plan for and respond to emergencies, both natural and man-made. A key role performed by the agency is the designation of floodplains and management of the federal flood insurance program.

Floodplain. The area adjacent to a stream, slough, river, lake or other water course that is inundated during a 100-year storm event as mapped by the Federal Emergency Management Agency (FEMA),

Geotechnical Engineering Study. A geotechnical report is a report prepared by a certified engineering geologist or a civil engineer practicing within the area of his or her competence, which identifies geologic and seismic hazards and recommends mitigation measures to reduce the risk of seismic hazard to acceptable levels.

Hazardous Materials. A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10).

Hazardous Wastes. Similarly, hazardous wastes are defined as materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal and have the characteristics of a hazardous material. According to Title 22 of the CCR, hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter 11, Article 3).

Induced Seismicity. Induced seismicity refers to seismic events that are caused by human activities, such as fluid injection into and production from energy reservoirs, which alter the stresses and strains in the Earth's crust.

Liquefaction. During seismic events, liquefaction of fine-grained, unconsolidated sediments can be a serious hazard to structures built on these surfaces. Liquefaction frequently occurs in deposits where sediments are laid down in a quiet or calm water environment, such as historic lakebeds or inland sea areas. These deposits have a loose structure because undrained water remains between the pores of the sediments (the spaces between soil grains, usually filled with air or water), and groundshaking from earthquakes may trigger rapid consolidation of the soils, resulting in a complete loss of strength.

Magnitude. Earthquake magnitude is measured by the Richter scale, indicated as a series of Arabic numbers with no theoretical maximum magnitude. The greater the energy released from the fault rupture, the higher the magnitude of the earthquake. Magnitude increases logarithmically in the Richter scale; thus, an earthquake of magnitude 7.0 is thirty times stronger than one of magnitude 6.0. Earthquake energy is most intense at the point of fault slippage, which is called the epicenter because the energy radiates from that point in a circular wave pattern; the farther an area is from an earthquake's epicenter, the less likely it is that groundshaking will occur.

Naturally Occurring Asbestos (NOA). Geologic deposits or naturally occurring earth materials including rock and soils with an asbestos concentration of 0.25% or greater as determined by ARB Test Method 435 or other ARB approved test method or as shown on the Ultramafic and Serpentine Rock and Soils Map for Lake County.

Naturally Occurring Asbestos Area (NOAA). A geographic area mapped on the Ultramafic and Serpentine Rock and Soils Map for Lake County as containing ultramafic rocks, ultrabasic rocks, serpentine, or soils derived from those materials, or any other area where NOA has been identified in the rocks or soil, unless the Air Pollution Control Officer (APCO) has granted an exemption in response to a geologic evaluation as provided for in the asbestos ATCM.

7.1 General

Goal HS-1	To ensure the County is protected from injury and damage resulting from natural catastrophes, man-made events, and hazardous conditions.

Policy HS-1.1 ***Development Constraints***
The County shall permit development only in areas where the potential danger to the health and safety of people can be mitigated to an acceptable level.

Policy HS-1.2 ***Maintain Emergency Public Services***
The County shall ensure that during natural catastrophes and emergency situations, the County can continue to provide essential emergency services.

Policy HS-1.3 ***Building and Fire Codes***
The County shall ensure all buildings for human habitation are designed in compliance with the Uniform Building Code and other requirements based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).

Policy HS-1.4 ***Hazard Awareness and Public Education***
The County shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, Naturally Occurring Asbestos and fire hazards, and emergency procedures.

Policy HS-1.5 ***Interagency Coordination***
The County shall work with other federal, state and local agencies to assure the continued presence and operation of services essential to public health and safety during times of emergency.

Policy HS-1.6 ***Serpentine Dust Mitigation***
The County shall continue to implement its comprehensive grading ordinance in order to address dust mitigation including special mitigation for development within Naturally Occurring Asbestos areas.

7.2 Geologic and Seismic Hazards

Goal HS-2	To reduce the risk to life and property and increased governmental costs from seismic and geologic hazards.

Known seismic hazard areas are illustrated on Figure 7-1.

Figure 7-1. Known Seismic Hazard Areas

Figure 7-1, BACK

Policy HS-2.1 Hillside Development

Areas in excess of 30 percent slope or in mapped naturally occurring asbestos areas may require submittal of engineered plans for all construction and grading, at the discretion of the Community Development Department. These plans shall address roads, utility corridors, and similar off-site improvements as well as erosion and dust control. Development in other areas possessing potential landslide risk, regardless of slope, shall require engineered plans and/or geotechnical study prior to discretionary approval or approval of grading or building permits.

Policy HS-2.2 Development Near Fault Zones

The siting of residential, commercial, recreational, or industrial structures on or adjacent to known active or potentially active fault zones should be avoided.

In areas of known seismic hazards, building intensity should be dictated by a scale of acceptable risks as shown in Table 7-1.

Policy HS-2.3 Landslide Areas

The County shall not allow development on existing unconsolidated landslide debris.

Policy HS-2.4 State and Federal Seismicity Studies

The County shall encourage continued studies by the appropriate state and federal agencies on fault location, activity, and seismicity (including induced seismicity) within the County.

Policy HS-2.5 Continued Evaluation of Earthquake Risks

The County should continue to evaluate areas to determine levels of earthquake risk.

Policy HS-2.6 Development Criteria

The County should consider geologic and seismic criteria in its permitting authority, and in determination of land use policies and development decisions, particularly in identified study areas.

Policy HS-2.7 Seismic Safety of Public Buildings

Public facilities, particularly critical facilities, should be upgraded to meet the risk requirements for seismic safety and be periodically reviewed to determine if and when upgrading is necessary.

Table 7-1. Scale of Acceptable Seismic Risks

Level of Acceptable Risk	Reason for Risk Level	Kinds of Structure
Extremely low	Failure of a single structure may affect substantial populations.	Structures whose continued functioning is critical, or whose failure might be catastrophic; nuclear reactors, large dams, power intertie systems, plants manufacturing or storing explosives or toxic materials.
Slightly higher than the above case	Failure of a single structure may affect substantial populations.	Structures whose use is critically needed after a disaster: important utility centers; hospitals, fire, police, and emergency communication facilities; fire stations; and certain bridges and overpasses that are part of a critical transportation element; also smaller dams.
Lowest possible risk to occupants of the structure	Failure of a single structure would affect primarily only the occupants.	Structures of high occupancy, or whose use after a disaster would be particularly convenient: schools, churches, theaters, large hotels, and other high-rise buildings housing large numbers of people, other places normally attracting large concentrations of people, civic buildings, secondary utility structures, extremely large commercial enterprises, most roads, alternative or non-critical bridges and overpasses.
An "ordinary" level of risk to occupants of the structures	Resist minor earthquakes without damage; resist moderate earthquakes without structural damage, but with some non-structural damage; resist major earthquakes of the intensity of severity of the strongest experienced in California, without collapse, but with some structural as well as non-structural damage.	The vast majority of structures: most commercial and industrial buildings, small hotels and apartment buildings, and single-family residences.

Source: Meeting the Earthquake Challenge, Final Report to the Legislature, State of California, by the Joint committee on Seismic Safety, January 1974. Part One: A Comprehensive Approach to Seismic Safety, p.9.

Policy HS-2.8 Financial Assistance for Seismic Upgrades

The County should consider requesting federal or state financial assistance to implement corrective seismic safety measures required for existing buildings.

Policy HS-2.9 Seismic Upgrading for Streets and Highways

Selected streets and highways vital to the functioning of emergency services and critical facilities should be evaluated and upgraded to an acceptable degree of safety that considers potential earthquake effects.

Policy HS-2.10 Limit Roadway Development in Fault Areas

The County shall limit construction of critical transportation structures across the trace of a known active or potentially active fault to those which can not be reasonably constructed at another location.

Policy HS-2.11 Design and Construction of Critical Facilities and Utilities

The County shall require that critical facilities be designed and constructed to remain functioning after the Maximum Probable Earthquake and to resist collapse in the event of the Maximum Credible Earthquake as specified in a detailed Geologic/Seismic report based on a site-specific investigation. An example includes designing utilities crossing fault zones to minimize damage by utilizing such measures as flexible units, valving, redundant lines, or automatic valves operated by differential pressure.

Policy HS-2.12 Seismic Standards for Dams

The County shall continue to meet seismic standards of dam safety as promulgated by the State Division of Safety of Dams as applicable to new and existing structures.

Policy HS-2.13 Prohibit Critical Facilities in Seismic Fault Areas

The County shall prohibit construction of critical facilities in proximity or along known active or potentially active faults.

See also Goal GR-2 in the Geothermal Resources Element, Section 10

7.3 Air Quality

Goal HS-3	To reduce the generation of air pollutants and promote non-polluting activities to minimize impacts to human health and the economy of the County.

Policy HS-3.1 Monitoring of Point and Area Sources

New and existing point sources of air pollution should be monitored for compliance with County, State, and Federal air quality regulations and standards.

Policy HS-3.2 Best Available Air Pollution Control Technologies

The County shall require the use of the best available air pollution control technologies to maintain healthful air quality and high visibility standards, along with continuing compliance with State and Federal Ambient Air Quality Standards.

Policy HS-3.3 Transportation and Air Quality

To reduce the number of vehicle trips and miles traveled, residential development should be in close proximity to places of shopping, play, and employment. Where feasible walking and bicycle trails, and cluster development should be considered.

Policy HS-3.4 Paving or Treatment of Roadways for Reduced Air Emissions

As unpaved roads are a major source of the County's particulate emissions, the County should require that all new roads and driveways for new projects that are in close proximity to adjacent residences or the public be paved or treated to reduce dust generation where feasible. Unpaved roads, driveways

and parking areas should be considered for surfacing improvements when permits are granted for expanded use.

Policy HS-3.5 Cooperation with Local and Regional Agencies

The County shall cooperate with other agencies in developing an effective approach to regional air quality planning management.

Policy HS-3.6 Regional Agency Review of Development Proposals

The County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality. The County shall continue to submit development proposals to the Lake County Air Quality Management District for review and comment, in compliance with the California Environmental Quality Act (CEQA) prior to consideration by the County.

Policy HS-3.7 Development Requirements

The County shall require developments to be located, designed, and constructed in a manner that would minimize the production of air pollutants.

Policy HS-3.8 County Review of Development Proposals

The County shall require consideration of alternatives or amendments that reduce emissions of air pollutants when reviewing project applications.

Policy HS-3.9 Air Quality Analysis

The County may require an analysis of potential air quality impacts associated with significant new developments through the environmental review process, and identification of appropriate mitigation measures prior to approval of any major development project.

Policy HS-3.10 Dust Suppression During Construction

The County shall require dust-suppression measures for grading activities, and asbestos dust hazard mitigation plans for projects located in Naturally Occurring Asbestos Areas.

Policy HS-3.11 Asbestos Inspection During Construction

The County shall require that all projects requiring a grading permit or a building permit that would result in earth disturbance, in areas likely to contain naturally occurring asbestos, utilize approved asbestos dust mitigation measures as required by the LCAQMD, CARB and the Lake County Community Development Department.

Policy HS-3.12 Establish Disclosure Program

The County shall adopt a mandatory disclosure program, where potential buyers and sellers of real property in all areas likely to contain naturally occurring asbestos are provided information regarding the potential presence of asbestos subject to sale. Information shall include potential for exposure from access roads and from disturbance activities (e.g., landscaping), and shall also include typical mitigation measures and legal requirements.

7.4 Airport Hazards

Goal HS-4	To minimize the possibility of the loss of life, injury, or damage to property as a result of airport hazards.

Policy HS-4.1 ***Airport Land Use Compatibility Plan***

The County shall require that development around the Lampson Field Airport be consistent with the safety policies and land use compatibility guidelines contained in the adopted Lake County Airport Land Use Compatibility Plan.

Policy HS-4.2 ***Compliance with FAA Regulations***

The County shall ensure that development within the airport approach and departure zones are in compliance with Part 77 of the Federal Aviation Administration Regulations (FAA regulations that address objects affecting navigable airspace).

See also airport noise policies in the Noise Element, Section 8

7.5 Hazardous Materials

Goal HS-5	To protect residents, visitors, and property from hazardous materials through their safe use, transport, and disposal.

Policy HS-5.1 ***Transporting Hazardous Materials***

The County shall strive to ensure that hazardous materials are used, transported, and disposed within the County in a safe manner and in compliance with local, state, and federal safety standards. Investigations and enforcement action shall be taken as necessary for any illegal hazardous waste disposal or other violations of federal, state, or local hazardous materials laws and regulations.

Policy HS-5.2 ***Designated Routes for Hazardous Materials***

The County shall work with Caltrans and the Highway Patrol to ensure that hazardous materials transported within the County are restricted to routes that have been designated for such transport.

Policy HS-5.3 ***Establishment of Procedures to Transport Hazardous Wastes***

The County shall continue to cooperate with the Highway Patrol to establish procedures for the movement of hazardous wastes within the County.

Policy HS-5.4 ***Hazardous Waste Disposal Needs of Local Enterprises***

The County should investigate the anticipated hazardous waste disposal needs of local enterprises including agricultural, geothermal, and mining industries to ensure that safe and adequate disposal sites are carefully planned.

Policy HS-5.5 ***Incompatible Land Uses***
The County shall prevent incompatible land uses within close proximity to hazardous waste properties.

Policy HS-5.6 ***Contamination Prevention***
The County shall review new development proposals to ensure that soils, surface water and groundwater are protected from contamination.

Policy HS-5.7 ***Increase Public Awareness***
The County will work to educate the public as to the types of household hazardous waste and the proper method of disposal.

Policy HS-5.8 ***Household Hazardous Waste***
The County shall encourage household hazardous waste to be disposed of properly.

Policy HS-5.10 ***Inspection of Hazardous Material Handlers and Waste Generators***
The County shall inspect hazardous material handlers and hazardous waste generators to ensure full compliance with laws and regulations.

Policy HS-5.11 ***Phase I and II Environmental Site Assessments***
The County shall require that developers have Phase I or Phase II environmental site assessments performed during the design phase on sites known to contain hazardous materials or which had previously been utilized for the handling or storage of hazardous materials.

7.6 Flood Hazards

Goal HS-6	To minimize the possibility of the loss of life, injury, or damage to property as a result of flood hazards.

Policy HS-6.1 ***Development Compliance with Federal, State, and Local Regulations***
All development within the designated floodway or floodplain zones shall conform to Federal Emergency Management Administration regulations and the Lake County Flood Plain Management Plan.

Policy HS-6.2 ***Development in Floodplain Zones***
The 100-year floodplain zones (as designated on maps prepared by the Federal Emergency Management Administration, refer to Figure 7-2) should be protected and maintained through strict limitation on land use. To carry out this policy, the following guidelines on development should be observed:

- Critical facilities (those facilities which should be open and accessible during emergencies) should not be permitted.
- Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible.

(This policy is continued on Page 7-15.)

Figure 7-2. Flood Hazards Map

Figure 7-2, BACK

- New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, risk to infrastructure, and ensure safe access during flood conditions.
- The County shall impose stringent controls on approvals of septic systems where there is a substantial likelihood of infiltration of floodwater into the systems, and/or the discharge from the systems into floodwaters.

Policy HS-6.3 Flood Control Measures

Flood control measures should be considered as part of an overall community development plan, and should advance the goals of recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes.

Policy HS-6.4 Development in Dam Inundation Zones

Projects proposed within potential dam zones should be reviewed by the Director of the County Office of Emergency Services and checked against evacuation plans on file for the area. If a project presents a direct threat to human life, appropriate mitigatory actions should be taken, including restriction of development in the subject area.

Policy HS-6.5 Multipurpose Flood Control Projects

The County shall encourage the development of multipurpose flood control projects when economically feasible.

Policy HS-6.6 Impacts to Downstream Properties

Prior to the approval of urban development project sites and projects within floodplain areas, the project applicant shall demonstrate that such development will not adversely impact downstream properties or contribute to flooding hazards.

Policy HS-6.7 Participation in Federal Flood Insurance Program

The County shall continue to participate in the National Flood Insurance Program (NFIP).

Policy HS-6.8 Mapping of Flood Hazard Areas

The County shall require that tentative and final subdivision maps and approved site plans delineate areas subject to flooding during a 100-year flood event.

7.7 Urban and Wildland Fire Hazards

Goal HS-7	To minimize the possibility of the loss of life, injury, or damage to property as a result of urban and wildland fire hazards.

Policy HS-7.1 ***Consultation with Fire Service Districts***

The County shall consult with the appropriate fire service district or California Division of Forestry in areas designated as high and extreme fire hazard, for particular regulations or design requirements prior to issuance of a building permit or approval of subdivisions (refer to Figure 7-3).

Policy HS-7.2 ***Encourage Cluster Development***

In areas designated as high or extreme fire hazard, the County should encourage cluster developments to provide for more localized and effective fire protection measures such as consolidations of fuel build-up abatement, firebreak maintenance, fire fighting equipment access, and water service provision.

Policy HS-7.3 ***Fuel Modification Programs***

The County shall actively support fuel modification and reduction programs on public and private lands throughout the County, and shall encourage methods other than burning in order to minimize air quality impacts.

Policy HS-7.4 ***Wildland Fire Management Plans***

The County shall require the development of wildland fire management plans for projects adjoining significant areas of open space that may have high fuel loads.

Policy HS-7.5 ***Fuel Breaks***

Fuel breaks of at least 30 feet should be maintained around all structures. Additional fuel breaks or fuel modifications up to 100 feet around structures should be required when the fire officials find that extra hazardous conditions exist. Secondary fuel breaks up to 200 feet in width should be required when the fire authority finds that additional precautions are necessary. Fire buffers should be created along heavily traveled roads within high and extreme hazard areas by thinning, discing, or controlled burning. Parks, golf courses, utility corridors, roads, and greenbelts should be located so that they may serve a double function as fuel breaks.

Figure 7-3. Fire Severity Map

Figure 7-3, BACK

Policy HS-7.6 ***Development Guidelines***

The County should consider fire hazards in evaluating development proposals. Within designated areas where population or residential building densities may be inappropriate to the hazards present, measures should be developed and adopted to mitigate risk to life and property loss. Lands designated as having high and extreme wildfire hazards may be developed provided that the following guidelines are satisfied:

- Development should be limited to Rural Residential or Rural lands only; and cluster development is encouraged.
- Developers and/or subsequent owners must assume responsibility for ongoing fire prevention maintenance activities for the project, including; abatement of fuel buildup, fire break maintenance, access provision, and provision of adequate water supply to meet fire flow.
- Separately developed dwellings with an individual private water supply shall provide an acceptable guaranteed minimum supply of water, in addition to the amount required for domestic needs.

Policy HS-7.7 ***Fire Resistant Building Materials***

The exterior of residential units should be composed of fire resistant materials and designed to reduce fire vulnerability within high and extreme fire hazard areas.

7.8 Emergency Response

Goal HS-8	To ensure the maintenance of the Emergency Operations Plan in order to maintain its effectiveness in preparing and responding to a natural or human-made disaster.

Policy HS-8.1 ***Coordinate Emergency Response Services with Local Agencies***

The County should coordinate with all other local, state, and federal governmental agencies charged with disaster and emergency preparedness responsibilities.

Policy HS-8.2 ***Emergency Response Exercises***

The County should continue to conduct periodic emergency response exercises to insure that all County departments respond efficiently and that emergency communications and other systems are properly maintained.

Policy HS-8.3 ***Maintain Emergency Evacuation Plans***

The County should continue to maintain emergency evacuation plans for identified potential flooding areas downstream of dams.

Policy HS-8.4 ***Develop Interim Disaster Plans***

The County should develop interim disaster plans assuming many bridges and highway overpasses will not be functional following a major earthquake due to collapse and the roads and highways in hillside areas will be blocked.

Policy HS-8.5 Earthquake Emergency Procedures

The County should begin formulation of procedures to be followed in the event earthquake prediction becomes a reality, such as determining the agency from which predictions would be accepted (tentatively, the Governor).

Policy HS-8.6 Insurance Provisions

The County should encourage the lending and insurance industries to advise fire and homeowner policy holders of insurance provisions related to earthquakes, floods, and mudslides.

Policy HS-8.7 Emergency Operations Plan

The County shall ensure that the Emergency Operations Plan continues to meet current federal and state emergency requirements through periodic updating.

Policy HS-8.8 Coordinate with Cities and Other Local Agencies

The County will work with other local agencies, including cities within the County, to develop coordinated geographical information systems (GIS) planning for emergency response services.

Policy HS-8.9 Emergency Centers

The County should require emergency centers, such as hospitals, to have alternate independent drinking water systems, cooling water systems for electric generators, and alternate generators for power.

Policy HS-8.10 Mutual Aid Agreement

The County shall maintain current and effective mutual aid or Joint Power Agreements (JPA) for fire, police, medical response, hazardous materials, mass care, heavy rescue or other functions as appropriate.

Policy HS-8.11 Critical Facilities

The County shall identify and map the location of all critical facilities. Contingency plans for disaster response and recovery should incorporate these facilities.

7.9 Implementation Measures

Table 7-2, Health and Safety Implementation Measures, identifies the implementation measures the County should take to implement the goals and policies of this element. The table lists each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.

Table 7-2. Health and Safety Implementation Measures

	Implementation Measure	Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2023-2028	On-going
1.0	The County shall work with the state to prepare maps of active faults in the County and designate Alquist-Priolo Special Study Zones as appropriate.	HS-2.2 HS-2.4	Community Development Department		■			
2.0	Structures in the Alquist-Priolo Special Studies Zones shall be set back 50 feet from each side of a mapped active fault or fault zone except as provided in state statute. The setback may be reduced based upon a geologic fault report that includes fault trenching.	HS-2.2 HS-2.6	Community Development Department					■
3.0	Development on lands having soils sensitive to seismic activity should be permitted only after adequate site analysis and appropriate siting and design of structure and foundation.	HS-2.2	Community Development Department					■
4.0	The County should not allow the siting of critical facilities in areas within Alquist-Priolo Special Studies Zones, in mapped Naturally Occurring Asbestos Areas, in areas subject to seiches, liquefaction, in areas with a high landslide risk, or on seismically unstable soils, unless a geologic/seismic hazards geotechnical engineering study shall be performed to identify potential impacts and engineering recommendations prior to siting or site acquisition. Critical facilities include: ▪ schools, ▪ hospitals, ▪ day-care and senior citizen centers, ▪ hazardous industrial facilities, ▪ government operations/communications centers, ▪ police and fire stations, ▪ emergency shelters, ▪ lifeline utility infrastructure.	HS-2.2 HS-2.11	Community Development Department					■

Implementation Measure		Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2023-2028	On-going
5.0	The County should adopt development standards to ensure adequate public health and safety upon delineation of Special Study Zones by state geologists as required by the Alquist-Priolo Act, and local and state asbestos air toxic control measures for Naturally Occurring Asbestos.	HS-2.6	Community Development Department		■			
6.0	Existing buildings, particularly critical facilities, that do not meet requirements for seismic safety should be strengthened, abated, or downgraded in use in an orderly manner. Priorities for seismic upgrading or phasing out of existing seismically unsafe buildings should be based on hazard to life, occupancy, and the capability of the structure to resist anticipated earthquake effects.	HS-2.7 HS-2.11	Community Development Department					■
7.0	The County shall conduct a structural review of all County critical facilities and include a detailed geologic/seismic site investigation and, if necessary, a review of access roads and utilities serving the sites. Require upgrading as determined by the reviews.	HS-2.7 HS-2.11	Community Development Department					■
8.0	The County should work with private developers to support the seismic upgrades to existing facilities.	HS-2.8 HS-2.9	Fire Dept. Community Development			■		
9.0	In order to reduce the dust impacts of new development on adjoining residences, paving or treatment of roads should be required in the development, subdivision, use permit, grading or air quality permit process. Existing roads may be resurfaced through capital improvement plans, redevelopment plans, special assessment districts, County Service Area Zones of Benefit, or as part of existing County road maintenance activities.	HS-3.4	Community Development Department, Planning Commission, Air Quality Management District, Public Works Department					■

	Implementation Measure	Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2023-2028	On-going
10.0	The County shall encourage large development projects (hospitals, schools, high-occupancy public facilities, and industrial/commercial facilities over 20,000 square feet) to mitigate air quality impacts from increased traffic. Mitigations may include, but is not limited to the following: ▪ providing bicycle access and parking facilities, ▪ provide preferential parking for high-occupancy vehicles and car pools, and ▪ establishing telecommuting programs or satellite work centers.	HS-3.7 HS-3.9	Community Development Department					■
11.0	The County shall require contractors to implement dust suppression measures during excavation, grading, and site preparation activities. Techniques may include, but are not limited to the following: ▪ site watering or application of dust suppressants, ▪ phasing or extension of grading operations, ▪ covering of stockpiles, ▪ suspension of grading activities during high wind periods (typically winds greater than 25 miles per hour), and ▪ revegetation of graded site.	HS-3.10	Community Development Department					■
12.0	The County shall develop an educational outreach program designed to educate citizens on serpentine soils and dust mitigation.	HS-3.12	Air Quality Management District, Community Development Department	■				
13.0	The County shall conduct a study to determine the needs for hazardous waste disposal sites and update the County's solid waste management plan.	HS-5.3	Public Services, Environmental Health Division, Planning Commission, Board of Supervisors		■			
14.0	The County should develop regulations for the placement of hazardous waste sites, and develop standards for types of uses which would be compatible. Existing hazardous waste development requirements shall be enforced.	HS-5.3	Environmental Health Division, Planning Commission, Board of Supervisors					■

Implementation Measure		Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2023-2028	On-going
15.0	The County should develop standards for the type, location, and intensity of development adjacent to sites and facilities for the production, use, storage, and disposal of toxic and hazardous materials.	HS-5.3	Environmental Health Division, Planning Commission, Board of Supervisors		■			
16.0	All development shall be required to conform to the "FF" zoning combining district when applicable. Review by Floodplain Manager, or his designee, for compliance with the County's Floodplain Management Ordinance (Chapter 25 of the County Code) shall also be required.	HS-6.1	Community Development Department, Public Works Department					■
17.0	New development proposals shall be reviewed to determine if they are within a FEMA mapped floodplain. New development and divisions of land, especially residential subdivisions, within FEMA mapped floodplains shall be developed to minimize flood risk to structures, risk to infrastructure, and ensure safe access during flood conditions.	HS-6.2	Lake County Water Resources Division, Public Works Department					■
18.0	Riparian areas and drainages and areas defined as 100-year floodplains are to be kept free from development that would adversely impact floodway capacity or characteristics, natural/riparian areas, or natural groundwater recharge areas.	HS-6.3 HS-6.6 HS-6.7	Community Development Department, Public Works Department					■
19.0	Public and private development projects will be evaluated to determine the effects of the project's on-site and downstream drainage patterns and associated ecological systems as part of the CEQA review process.	HS-6.6 HS-6.7	Community Development Department, Lake County Water Resources Division, Public Works Department					■
20.0	During review of development proposals, the County shall require appropriate building setbacks and fuel modification requirements within fire hazard zones, as appropriate to the specific hazard zones.	HS-7.1 HS-7.5 HS-7.6	Fire Department, Community Development Department					■
21.0	The County shall review all development plans and subdivision maps to provide recommendations for fire prevention and protection, including but not limited to safe circulation, ingress and egress, sprinkler requirements, storage and flows, and water pressure requirements.	HS-7.1 HS-7.5 HS-7.6 HS-7.7 HS-7.8	CDF Fire Department, Community Development Department					■

	Implementation Measure	Policy	Who is Responsible	Timeframe				
				2008-2012	2013-2017	2018-2022	2023-2028	On-going
22.0	The County shall maintain a current copy of a fire hazard severity map based on inputs from the CDF and local fire districts within the County.	HS-7.1	Fire Department					
23.0	The County shall develop and implement a program for training staff in disaster preparedness and response.	HS-8.2 HS-8.3 HS-8.5	Fire Department, Community Development Department			■		
24.0	The County shall conduct training programs for the public in disaster preparations. At a minimum these programs should include: ▪ existence and locations of areas susceptible to geologic hazards (faults, liquefaction, etc.), ▪ evacuation procedures, and, ▪ self-sufficiency procedures (i.e. supplies, etc.)	HS-8.2 HS-8.3	Fire Department, Sheriff's Department Community Development Department					■
25.0	The County shall review and update the Emergency Response Plan a minimum of every 5 years.	HS-8.7	Fire Departments, Sheriff's Department					■

Please see the next page.