9 Safety and Noise

Safety is a basic human need and is required for a community to thrive. The goals and policies in this element are designed to protect and enhance public health and safety of Folsom residents, property, and environment. Folsom is susceptible to several kinds of hazards, and the policies in this element are intended to address these hazards. This element also protects the community from the unwanted impacts of excessive noise.

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Emergency Preparedness

A community with a plan of action in case of emergency can better respond to disasters and more quickly recover from them. Folsom faces potential hazards in the form of earthquakes, liquefaction, flooding, wildfires, hazardous materials, and noise. Policies in this section ensure that Folsom is adequately prepared for any type of foreseeable hazard or emergency.

Goal SN 1.1

Maintain an effective response to emergencies, provide support and aid in a crisis, and repair and rebuild after a crisis.

SN 1.1.1 **Emergency Operations Plan**

Develop, maintain, and implement an Emergency Operations Plan that addresses life and safety protection, medical care, incident stabilization, property conservation, evacuation, escape routes (including back-up escape routes), mutual aid agreements, temporary housing, and communications. MPSP

SN 1.1.2 **Evacuation Route Assessment**

Periodically analyze the capacity, safety, and viability of the City's evacuation routes under a range of emergency scenarios during updates to the City's Evacuation Plan included in the City's Emergency Operations Plan. MPSP

SN 1.1.3 **Access Roads**

Require development to provide additional access roads where feasible to provide for safe access of emergency equipment and civilian evacuation concurrently. The width, surface, grade, radius, turnarounds, turnouts, bridge construction, and lengths of fire apparatus access roads shall meet the requirements of the State and existing City requirements. RDR

SN 1.1.4 **Community Emergency Response Team**

Support the Community Emergency Response Team program to train and prepare residents to mobilize in the event of a disaster. MPSP

SN 1.1.5 **Cooperation**

Coordinate with emergency response agencies, school districts, utilities, relevant nonprofits, and business interests to ensure a coordinated response to and recovery from a disaster. IGC JP

SN 1.1.6 **Multi-Hazard Mitigation Plan**

Maintain on-going hazard assessment as part of the Sacramento County Multi-Hazard Mitigation Plan within the city. MPSP

SN 1.1.7 **Climate Change Response Capacity Assessment**

Maintain the City's capacity to respond to hazards by assessing future increases in the severity and frequency of these events and increase capacity as needed to adequately respond to future hazard impacts. MPSP FB

Geologic and Seismic Hazards

California is a geologic and seismically active state. No major faults cross Folsom, but nearby faults could create hazardous conditions for Folsom residents. If not adequately prepared, buildings, roads, bridges, utility lines, and other infrastructure could be damaged or destroyed. Policies in this section require Folsom to prepare for geologic and seismic hazards and their impacts.

Goal SN 2.1

Reduce risks and minimize impacts to the community from earthquakes and geologic hazards.

SN 2.1.1 **Requirements**

Develop, maintain, and implement land use planning, building construction, and retrofitting requirements consistent with State standards to reduce risk associated with geologic and seismic hazards. MPSP

SN 2.1.2 **Roads, Bridges, and Utility Lines**

Ensure that the design and engineering of new roads, bridges, and utility lines can withstand movement or ground failure associated with the seismic risk in Folsom consistent with State standards. SO

SN 2.1.3 **Asbestos**

Require new development projects in areas containing naturally-occurring asbestos to reduce the hazards associated with asbestos consistent with State law. MPSP

SN 2.1.4 **Dredge Tailings**

Require new development on dredge tailings to conform to the guidelines and regulations of the California Geological Survey. RDR

Flood Hazards

Folsom is bisected by the American River, as well as smaller streams. The city also shares borders with Lake Natoma and Folsom Lake. These bodies of water create an environment where flooding is a possibility, particularly in the small streams that wind through Folsom. Policies in this section seek to prepare Folsom for flooding and minimize the risk to residents and property.

Goal SN 3.1

Minimize the risk of flooding hazards to people, property, and the environment.

SN 3.1.1 **200-Year Floodway**

Regulate new development or construction within the 200-year floodway to assure that the water flows upstream and downstream from the new development or construction will not be altered from existing levels. RDR

SN 3.1.2 **Development within the Inundation Boundary**

Coordinate with the U.S. Army Corps of Engineers in developing standards for development within the inundation boundary resulting from a failure of Folsom Dam or the dikes retaining Folsom Lake. IGC

SN 3.1.3 **Public Facilities**

Require that new critical facilities (e.g., hospitals, emergency command centers, communication facilities, fire stations, police stations) are located outside of 100- and 200-year floodplains, or where such location is not feasible; design the facilities to mitigate potential flood risk to ensure functional operation during a flood event. SO

SN 3.1.4 **Flood Control Costs**

Minimize new development in the 200-year floodway to reduce the long-term public costs of building and maintaining flood control improvements, as required by FEMA and State law. RDR

SN 3.1.5 **Agency Coordination**

Coordinate with local, regional, State, and Federal agencies with responsibility for flood management to minimize flood hazards and improve safety. IGC

SN 3.1.6 **Climate Change Informed Flood Standards**

Update and maintain the City's design standards related to stormwater and flood management based on the best available data regarding the increased intensity, duration, and frequency of future flood events. RDR

Wildfire Hazards

Significant parts of Folsom fall within moderate or high wildfire risk areas, particularly along the American River and near the Folsom-El Dorado Hills border. The region's hot, dry summers create an annual wildfire threat. Policies in this section aim at minimizing the risk of wildfires and preparing Folsom for wildfires.

Goal SN 4.1

Minimize the adverse impacts resulting from wildfires.

SN 4.1.1 **Defensible Space**

Require development in the urban-wildland interface to use "defensible space" design and maintenance to protect lives and property from the risk associated with wildfires. Defensible space techniques include planting fewer flammable species around buildings, such as fire resistant native and adapted species, and the use of mulch to prevent erosion on bare soil. RDR

SN 4.1.2 **Coordination**

Coordinate with fire protection and emergency service providers to assess wildfire hazards before and after wildfire events. Providers should coordinate efforts to effectively address any wildfire threat. IGC

SN 4.1.3 **Community Wildfire Preparedness Plan**

Maintain the City of Folsom Community Wildfire Preparedness Plan (CWPP) to help reduce the risk of catastrophic wildfires in the community. MPSP

SN 4.1.4 **Wildland Fire Risk Reduction**

To reduce the risk of wildland fire, continue to implement Wildland-Urban Interface Building Standards, vegetative fuels management, evacuation planning, and public education. Ensure that there is adequate water flow to combat structural and wildland fires to protect existing and future development. RDR MPSP PI

SN 4.1.5 **Wildfire Smoke Education**

Educate the City's population about the health impacts from poor air quality from wildfire smoke through education and outreach, focusing on protection of vulnerable populations including youth and seniors. PI

Hazardous Materials

Hazardous materials include a wide variety of substances found in homes as well as in industry. Used motor oil, paint, solvents, gasoline, and refrigerants are only a small list of the substances considered potentially hazardous to humans and the environment. Policies in this section support Folsom's hazardous materials programs to minimize the risk of hazardous materials.

Goal SN 5.1

Protect the health and welfare of the residents of Folsom through the management and regulation of hazardous materials in a manner that focuses on preventing problems.

SN 5.1.1 Hazardous Materials Management System

Coordinate with industry, community groups, and government agencies to maintain and implement an effective, workable, and fair hazardous materials management system. IGC JP

SN 5.1.2 Hazardous Materials Education

Educate the general public and interested parties on the technical and administrative developments in the field of hazardous materials management. PI

SN 5.1.3 Workplace Safety

Encourage the effective implementation of workplace safety regulations and assure that hazardous material information is available to users and employees. RDR

SN 5.1.4 Transport of Hazardous Materials

Strive to protect residents and sensitive facilities from avoidable incidents in the transportation of hazardous materials in the county. MPSP

Noise

Unwanted noise can be a nuisance that impacts quality of life. In extreme cases excessive noise can cause health problems. Vehicle traffic on freeways and major roadways, aircraft fly-overs, industrial activities, and outdoor recreation venues are sources of noise that affect the city. Policies in this section propose mitigation measures to address the harmful effects of noise.

Goal SN 6.1

Protect the citizens of Folsom from the harmful effects of exposure to excessive noise and to protect the economic base of Folsom by preventing the encroachment of incompatible land uses within areas affected by existing noise-producing uses.

SN 6.1.1 Noise Mitigation Strategies

Develop, maintain, and implement strategies to abate and avoid excessive noise exposure in the city by requiring that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses. MPSP

SN 6.1.2 Noise Mitigation Measures

Require effective noise mitigation for new development of residential or other noise sensitive land uses to reduce noise levels as follows:

1. For noise due to traffic on public roadways, railroad line operations, and aircraft: achieve compliance with the performance standards within Table SN-1.
2. For non-transportation-related noise sources: achieve compliance with the performance standards contained within Table SN-2.
3. If compliance with the adopted standards and policies of the Safety and Noise Element will not be achieved even with feasible mitigation measures, a statement of overriding considerations for the project must be provided. RDR

SN 6.1.3 Acoustical Analysis

Require an Acoustical Analysis prior to approval of proposed development of residential or other noise-sensitive land uses in a noise-impacted area. RDR

SN 6.1.4 Noise and Project Review

Develop, maintain, and implement procedures to ensure that requirements imposed pursuant to the findings of an acoustical analysis are implemented as part of the project review and building permit processes. The appropriate time for requiring an acoustical analysis would be as early in the project review process as possible so that noise mitigation may be an integral part of the project design. RDR

SN 6.1.5 Automobile Noise

Encourage the enforcement of the existing section of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems. RDR

SN 6.1.6 Aircraft Noise

Strive to reduce noise from aircraft travel over Folsom. IGC

SN 6.1.7 Noise Barriers

If noise barriers are required to achieve the noise level standards contained within this Element, the City shall encourage the use of these standards:

1. Noise barriers exceeding six feet in height relative to the roadway should incorporate an earth berm so that the total height of the solid portion of the barrier (such as masonry or concrete) does not exceed six feet.
2. The total height of a noise barrier above roadway elevation should normally be limited to 12 feet.
3. The noise barriers should be designed so that their appearance is consistent with other noise barriers in the project vicinity. RDR

SN 6.1.8 Vibration Standards

Require construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise-sensitive uses based on Federal Transit Administration criteria as shown in Table SN-3 (Groundborne Vibration Impact Criteria for General Assessment). RDR

Table SN-1: Noise Compatibility Standards

Land Use	Exterior Noise Level Standard for Outdoor Activity Areas[a]	Interior Noise Level Standard	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq}, dB[b]
Residential (Low Density Residential, Duplex, Mobile Homes)	60[c]	45	N/A
Residential (Multi Family)	65[d]	45	N/A
Transient Lodging (Motels/Hotels)	65[d]	45	N/A
Mixed-Use Developments	70	45	N/A
Schools, Libraries, Churches, Hospitals, Nursing Homes, Museums	70	45	N/A
Theaters, Auditoriums	70	N/A	35
Playgrounds, Neighborhood Parks	70	N/A	N/A
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75	N/A	N/A
Office Buildings, Business Commercial and Professional	70	N/A	45
Industrial, Manufacturing, and Utilities	75	N/A	45

Where a proposed use is not specifically listed on this table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the Community Development Department.

a) *Outdoor activity areas for residential developments are considered to be the back yard patios or decks of single-family residential units, and the patios or common areas where people generally congregate for multifamily development. Outdoor activity areas for nonresidential developments are considered to be those common areas where people generally congregate, including outdoor seating areas. Where the location of outdoor activity areas is unknown, the exterior noise standard shall be applied to the property line of the receiving land use.*

b) As determined for a typical worst-case hour during periods of use.

c) Where it is not possible to reduce noise in outdoor activity areas to 60 dB, L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 65 dB, L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

d) Where it is not possible to reduce noise in outdoor activity areas to 65 dB, L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 70 dB, L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table SN-2: Noise Level Standards from Stationary Sources

Noise Level Descriptor	Daytime (7:00 A.M. to 10:00 P.M.)	Nighttime (10:00 P.M. to 7:00 A.M.)
Hourly L_{eq}, dB	55	45
Maximum level, dB	70	65

Noise levels are measured at the property line of the noise-sensitive use.

Table SN-3: Groundborne Vibration Impact Criteria for General Assessment

Land Use Category	Impact Levels (VdB)		
	Frequent Events[a]	**Occasional Events[b]**	**Infrequent Events[c]**
Category 1: Buildings where vibration would interfere with interior operations	65[d]	65[d]	65[d]
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

Source: Federal Transit Administration, Transit Noise Impact and Vibration Assessment, May 2006.

Vibration levels are measured in or near the vibration-sensitive use.

a) *"Frequent Events" is defined as more than 70 vibration events of the same source per day.*

b) *"Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.*

c) *"Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.*

d) *This criterion limit is based on levels that are acceptable for most moderately-sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.*

Extreme Heat

Extreme heat events are projected to become more intense and frequent. Vulnerable populations including youth, seniors, and individuals with existing cardiovascular and respiratory health conditions are particularly vulnerable to heat wave events. The increased frequency and severity of extreme heat events are also projected to degrade the lifespan of important infrastructure such as roadways as well as increase energy demand for cooling, placing increased stress on the electricity grid.

Goal SN 7.1

Protect the City's critical infrastructure and citizens from the most severe effects of extreme heat events with an increased focus on protecting vulnerable populations including youth, seniors, and individuals with underlying health conditions.

SN 7.1.1 **Upgrading Heat Sensitive Infrastructure**

Upgrade existing heat-sensitive infrastructure and design new infrastructure to withstand the future intensity and frequency of extreme heat events. SO

SN 7.1.2 **Comprehensive Cool City Strategy**

Develop and implement a Cool City Strategy, in coordination with the Sacramento Metropolitan Air Quality Management District, to reduce the impacts of the Urban Heat Island effect through various measures including increasing the urban tree canopy and use of cool roofs and cool pavements as well as increasing green space in the city. MPSP IGC

SN 7.1.3 **Heat-Sensitive Populations**

Educate the community to help protect vulnerable populations from the increasing intensity of extreme heat events. PI

SN 7.1.4 **Climate-Smart Electricity Grid**

Work with the Sacramento Municipal Utility District (SMUD) to promote and help educate residents about SMUD's time-of-day energy rates and the cost benefits of reducing electricity use during peak demand periods. IGC PI