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Potential Hazards



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Introduction

Gilroy faces the potential for several types of natural and manmade disasters, in part due to its location. The Bay Area is one of the most earthquake-prone regions in the United States. Severe winter and spring storms can cause landslides in hillside areas and flooding along stream corridors. Dry weather during spring and summer months can create hazardous wildfire conditions. Manmade hazards such as noise and hazardous materials also pose a threat to the well-being of residents.

While it is impossible to completely avoid natural and manmade hazards, the Potential Hazards Element establishes goals, policies, and programs to protect life and minimize property damage during future disasters and emergencies. The goals and policies address regional hazards mitigation, seismic and geologic hazards, flood hazards, wildfires, hazardous materials, and noise.

Emergency Preparedness

Natural disasters can devastate a community. Gilroy faces risks from floods, wildfires, and earthquakes. Preparation and prevention, when possible, can lower the risk of a disaster and reduce damage if a disaster does occur. Policies in this section focus on providing a high level of safety and protection for residents and businesses from natural disasters such as floods, earthquakes, and wildfires.

Goal PH 1

Minimize potential for loss of life, injury, damage to property, and economic and social dislocation due to natural hazards through development controls and emergency preparedness.

PH 1.1 Location of Future Development

Allow development only in those areas where potential danger to the health, safety, and welfare of residents can be adequately mitigated to an acceptable level of risk. This applies to development in areas subject to flood damage, fire damage, or geological hazard due to their location and/or design. **RDR**

PH 1.2 Emergency Services

Prohibit development in areas where emergency services, including fire protection, cannot adequately be provided. **RDR**

PH 1.3 Development Review

Require appropriate studies as part of the development review process to assess potential hazards and assure that potential impacts are adequately mitigated. **RDR**

PH 1.4 Secondary Access

Residential Streets and Developments shall provide secondary access when serving 30 or more single family units or 100 or more multi-family units. The number of units required is subject to review by the Fire Chief. **RDR**

PH 1.5 Building and Fire Codes

Regularly update the building and fire codes to address earthquake, fire, and other hazards. **MPSP**

PH 1.6 Essential Emergency Public Services

Provide essential emergency public services during natural and human caused catastrophes and their aftermath to ensure a rapid recovery. **SO**

PH 1.7 Mutual Aid Agreements

Maintain mutual aid agreements with Santa Clara County, Cal Fire, and nearby cities to ensure adequate response to large-scale emergencies and multiple, simultaneous incidents that might exceed the capabilities of local resources. **IGC**

PH 1.8 Emergency Preparedness Training

Promote emergency preparedness through staff training and planning in cooperation with other public agencies and appropriate public interest organizations. **SO**

PH 1.9 Local Command and Control Facilities

Ensure that essential facilities designated as local command and control centers for emergency/disaster services are designed to withstand a “maximum probable seismic event” and remain operational. Secondary facilities should be identified and equipped as back up. **SO**

PH 1.10 Hazards Maps

Maintain the most current seismic hazards maps for use in development review, in accordance with the State of California’s Seismic Hazards Mapping Act. **MPSP**

PH 1.11 Public Education

Encourage a proactive approach to crime and fire prevention by providing education programs that raise community awareness and promote citizen involvement in crime and hazard prevention activities. **PI**

PH 1.12 Public Information

Provide information through the City’s quarterly newsletter, and through local radio and television, the internet, social media, and reverse 911 directories to educate the public on potential natural hazards and actions they can take to help minimize those hazards. **PI**

PH 1.13 Public Safety Answering Point

Coordinate with local service providers to ensure a backup system is established for telephonic communication with a local public-safety answering point (PSAP).

PH 1.14 Alternative Backup Power Generation

Develop alternative backup power generation capabilities in all city essential facilities, including City Hall, fire stations, senior centers, community meeting facilities and alert and warning facilities.

PH 1.15 Emergency Preparedness Planning

Require new specific plans and City plans and programs to address emergency preparedness.

PH 1.16 Development Tracking System

Consider the feasibility of procuring and implementing a system to track development in hazard prone areas using GIS software or an appropriate substitute.

PH 1.17 Continuity of Operations and Government

Consider development of a Continuity of Operations (COOP) and Continuity of Government (COG) Planning Program for essential functions within the Gilroy governmental operations.

PH 1.18 Address Emergency Preparedness in Plan and Code Updates

Address emergency preparedness during the next update to the Capital Improvement Plan, Storm Water Quality Protection and Discharge Control, and Habitat Conservation Plan provisions in the Municipal Code, or any new storm water management plans in order to reduce natural disasters impacts.

PH 1.19 Plan Maintenance Protocols

Actively participate in the plan maintenance protocols outlined in Volume One of the Santa Clara County Hazard Mitigation Plan.

Geologic and Seismic Hazards

Gilroy is located in a seismically active area. Three major active faults cross Santa Clara County: the San Andreas, Calaveras, and Hayward faults. Each of these faults has generated significant earthquakes throughout recorded history (200 years). Gilroy's risk associated with those faults is minor to moderate. There are liquefaction hazard areas along Uvas Creek and Llagas Creek, as well as small landslide hazard areas in the steep, hilly terrain in the northwestern and southwestern parts of the city. Policies in this section aim to minimize the risk associated with geologic and seismic hazards.

Goal PH 2

Protect life and minimize property damage from potential seismic and geologic hazards.

PH 2.1 Active Faults

Consider all faults in the area to be active faults, unless and until evidence to the contrary is developed through field investigation. **MPSP**

PH 2.2 Site Investigation and Mitigation

Ensure proper soils and geologic site investigation and appropriate mitigation for development proposals in areas of unconsolidated fill, and areas subject to seasonal high groundwater tables or other potentially unstable soils. **RDR**

PH 2.3 Roads, Bridges, and Utility Lines

Ensure that the design and engineering of new roads, bridges and utility lines (public and private) that cross active or potentially active fault traces, streams, or other areas of high seismic risk are resilient to the potential hazards posed by ground movement along these corridors. **SO RDR**

PH 2.4 Slope Restrictions

Restrict development on steep slopes and on slopes susceptible to landslides and soil creep. Slopes of 10 to 30 percent may be suitable for low intensity, low

density development, subject to site-specific review and approval. Slopes greater than 30 percent, areas of high landslide risk, and areas with highly expansive soils on slopes greater than 10 percent are not suitable for development and will remain open space. **RDR**

PH 2.5 Geologic Hazards Reports

Require geologic hazards reports for all new development applications to assess potential geologic hazards and to determine if these hazards can be adequately mitigated. **RDR**

PH 2.6 Erosion and Deposition Control

Require all new development proposals to include a site plan detailing appropriate methods of erosion and deposition control during site development and subsequent use. **RDR**

PH 2.7 Hazardous Building Inspection

Inspect buildings to identify, abate, or mitigate existing hazardous structures. **MPSP**

PH 2.8 Unreinforced Masonry (URM) Buildings

Continue to implement Article VI. Seismic Safety of the Gilroy City Code to improve the safety of the city's Unreinforced Masonry (URM) buildings. **MPSP**

PH 2.9 City Facility Upgrades

Strive to seismically upgrade existing City facilities that do not meet current building code standards. **SO**

Flood Hazards

Most of Gilroy is not within a 100-year floodplain, but careful planning will be needed to ensure new development does not occur in floodplains or effectively mitigates the risk. Policies in this section specify the restrictions on development in flood-prone areas and describe the measures needed to minimize flood risk in developed areas.

Goal PH 3

Protect life and minimize property damage from potential flood hazards.

PH 3.1 Development Restrictions in Flood Areas

Ensure all new development on publicly and privately owned land within flood prone, mudslide, or flood related erosion areas (as indicated by the Federal Emergency Management Agency in the flood hazards zones or in Ordinance no. 2017-01) incorporate uniform enforceable measures that reduce losses due to flood related hazards to an acceptable level of risk. **RDR**

PH 3.2 Floodway Use

Discourage the construction of expensive flood prevention facilities by leaving floodways in agricultural and recreational uses. **RDR**

PH 3.3 Flood Control Costs

Minimize the long-term public costs of flood control improvements. **SO** **FB**

PH 3.4 Multiple Use of Flood Control Projects

Coordinate with Valley Water to design flood control measures and drainage channel improvements to serve multiple uses, including: recreational open space; trails; bikeways; groundwater recharge; protection and restoration of riparian vegetation and wildlife habitats; and enhancement of scenic qualities.

SO

PH 3.5 Drainage Channel Design

Design new drainage channels with gently sloping and curving banks to maximize safety, ease of maintenance, and natural appearance. To the greatest extent feasible, use riparian vegetation to stabilize the banks and to landscape the channels in a manner that is natural in character and easy to maintain, creating a scenic asset for the enjoyment of City residents. **SO**

PH 3.6 Permeable Surfaces for Runoff Reduction and Absorption

Require new development to include landscaped areas for reducing runoff and increasing runoff absorption capacities and encourage the use of permeable paving materials. **RDR**

PH 3.7 Erosion Control in Hillside Areas

Require new developments in hillside areas to retain and protect areas of native vegetation to help reduce erosion and slow the speed of rainfall runoff, thereby retaining the hillside areas' natural flood control characteristics. Ensure that retention and protection of vegetated areas is also in keeping with fire hazard management goals. **RDR**

PH 3.8 FEMA Coordination

Coordinate with the Federal Emergency Management Agency (FEMA) to ensure that Federal Insurance Rate Maps correctly depict flood hazards in the city. **IGC**

Wildfire Hazards

Hilly areas in the northern and western portions of the city, as well as the adjacent areas outside of the city limits, are prone to wildfires. Gilroy is susceptible to wildfires in the "wildland-urban interface" areas of Gilroy. In addition, wildfires nearby could lead to heavy smoke conditions in Gilroy that would require emergency management. Policies in this section are designed to minimize urban wildfire risks through public education, fire

prevention codes, and hillside management practices that reduce the potential for wildfires.

Goal PH 4

Protect life and minimize potential property damage from wildfires in the wildland/urban interface area and hazardous fire areas.

PH 4.1 Fire Hazard Severity Zones

Ensure development in the Gilroy wildland/urban interface area conforms to the most current standards for wildfire protection. **RDR**

PH 4.2 Development Review

Provide plan checks for new construction, remodels, tenant improvements, and demolitions to ensure compliance with applicable life safety and fire protection system requirements, including special requirements for fire safety in areas with wildfire risk. **RDR**

PH 4.3 Roofing Requirements

Require "Class A" fire-rated roofs on all new construction or re-roofing in the following areas:

- west of Santa Teresa Boulevard, and south of Mantelli Drive
- west of Rancho Hills Drive

In all other areas, "Class C" or better fire rated roofs shall be required for new construction and re-roofing. **RDR**

PH 4.4 Hillside Areas

Require development in hillside areas to comply with the fire hazard policies and codes adopted into the Gilroy Fire Code for wildland/urban interface areas. **RDR**

PH 4.5 Fire Safety Education and Training

Provide information on wildfire safety and prevention to raise public awareness on fire hazard issues and encourage preventive measures. **PI**

Hazardous Materials

Hazardous materials are toxic, ignitable, corrosive, or reactive substances that can cause harm to people. Existing and potential problems related to hazardous materials include water and soil contamination, health hazards from existing or historical land uses that use or generate hazardous materials, and the improper disposal of hazardous materials by business, industry, and individual households. Policies in this section are designed to establish strategies to minimize exposure to hazardous materials through the

documentation, monitoring, clean-up, and re-use of hazardous material sites; and the implementation of best practices for the routine use, storage, transport, and disposal of hazardous materials.

Goal PH 5

Protect people and environmental resources from contaminated hazardous material sites and minimize risks associated with the use, storage, transport, and disposal of hazardous materials.

PH 5.1 Hazardous Materials and Waste Inspections

Provide inspections to ensure compliance with local, State, and Federal regulations and to reduce the risks associated with the use, handling, and storage of hazardous materials and wastes. **SO**

PH 5.2 Hazardous Waste Reduction

Minimize the potential hazards posed by the storage and transport of hazardous materials and waste by encouraging source reduction and waste minimization. **MPSP**

PH 5.3 Industrial Wastewater Pretreatment Program

Continue to implement the Pretreatment Program for industrial and commercial wastewater. **MPSP**

PH 5.4 Hazardous Materials Storage Ordinance

Continue to regularly inspect activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the City's Hazardous Materials Storage Ordinance. **MPSP**

PH 5.5 Household Hazardous Waste Collection Facility Use

Educate and encourage the community to use the transfer facility for hazardous wastes from households, small businesses, and government agencies located near the San Martin Airport. **IGC**

PH 5.6 Hazardous Soils Conditions Clean-up

Evaluate new development sites for potential hazardous soils conditions. In cases where contamination is identified, require that all necessary mitigation measures are incorporated into the project to ensure there is no public health danger. When appropriate, refer the project to the proper County or State agency for review. **RDR**

PH 5.7 Buffers and Setbacks

Review applications for commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer

zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses. **RDR**

PH 5.8 Sensitive Uses

Review applications for new residential, schools, community centers, hospitals, and other sensitive uses to identify potential implications for existing nearby businesses using, storing, or transporting hazardous materials. Such implications may include future limitations on the use of such materials by the businesses.

Noise

Exposure to excessive noise can impact the health and quality of life of residents and employees. Excessive noise can cause hearing loss, stress, hypertension, sleep disturbance, and fatigue. There are many sources of noise in Gilroy, from industrial uses to highway traffic and rail lines. Policies in this section are designed to minimize human exposure to excessive noise by evaluating noise exposure risks and incorporating appropriate mitigation measures.

Goal PH 6

Protect Gilroy residents from exposure to excessive noise and its effects through appropriate mitigation measures and responsive land use planning, especially in regard to noise-sensitive land uses such as schools, hospitals, and housing for seniors.

PH 6.1 Noise and Land Use

Establish a physical development pattern that is compatible with the noise environment of Gilroy, ensuring that residential neighborhoods and park areas are the quietest areas in the community. **MPSP**

PH 6.2 Noise Standard Consistency

Review development proposals to assure consistency with noise standards, using the Future Noise Contours map to determine if additional noise studies are needed for proposed development. **RDR**

PH 6.3 Maximum Permissible Noise Levels

Ensure that outdoor and indoor noise levels are within the maximum permitted levels. Prohibit further development of sensitive uses in areas where the current or projected future noise levels exceed these standards and feasible mitigation is not available to reduce the noise level to meet the standards identified in Table 9-1. **RDR**

PH 6.4 Noise Study and Mitigation

Require proposed development projects in areas where future residents or visitors may be exposed to major noise sources (e.g. roadways, rail lines,

industrial activities) to conduct an environmental noise analysis. The noise analysis shall determine noise exposure and noise standard compatibility with respect to the noise standards identified in Table 9-1 and shall incorporate noise mitigation when located in noise environments that are not compatible with the proposed uses of the project. **RDR**

PH 6.5 Acoustical Design

Consider the acoustical design of projects in the development review process to reduce noise to an acceptable level. Ensure that noise mitigation features are designed and implemented in an aesthetically pleasing and consistent manner.

RDR

PH 6.6 Setbacks and Earth Berms

Require landscaped setbacks and earth berms as an alternative to soundwalls where feasible to buffer noise along major thoroughfares and rail lines adjacent to residential areas. Where an adequate setback and earth berm is not feasible, a masonry wall screened with drought tolerant, low maintenance landscaping will be required. **RDR**

PH 6.7 Residential Noise Standards

Require the design of new residential development to comply with the noise standards found in Table 9-1. Maximum outdoor sound levels for residential properties shall be 60 dBA L_{DN} , in areas where outdoor use is a major consideration (e.g., backyards in single family housing and common recreational areas in multi-family developments). In the Downtown Specific Plan Area, the maximum outdoor noise level in common recreation areas of multi-family residential uses shall be 65 dBA L_{DN} . In outdoor use areas where the City determines that maintaining the outdoor noise levels mentioned above cannot be achieved after the application of reasonable and feasible mitigation, a level of up to 70 dBA L_{DN} may be permitted, if the following findings are made:

- That feasible sound attenuation measures have been incorporated in the project design;
- That potential noise levels are part of the developer’s disclosure to future residents;
- That interior noise limits established by the General Plan are strictly maintained; and
- Potential noise levels will not jeopardize the health, safety, and general welfare of the public. **RDR**

PH 6.8 Incremental Noise Impacts of Commercial and Industrial Development

Review of proposed new or expanding commercial and industrial development shall consider potential noise impacts on nearby residential uses and, as necessary, shall require noise mitigation measures as a condition of project approval. **RDR**

PH 6.9 Transportation Noise

Consider potential noise impacts when evaluating proposals for transportation projects, including road, freeway, and transit projects, and incorporate mitigation measures to meet General Plan standards. **RDR IGC**

PH 6.10 Construction Noise

Require proposed development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses, to the extent feasible. **RDR IGC**

PH 6.11 Construction and Maintenance Noise Limits

Limit the hours of construction and maintenance activities to the less sensitive hours of the day (7:00am to 7:00pm Monday through Friday and 9:00am to 7:00 pm on Saturdays). Construction hours that vary from these timeframes may be approved by the Building Official, in conformance with Article XVI. Hours of Construction of the Gilroy City Code. **RDR**

PH 6.12 Vibration Impact Assessment

Require a vibration impact assessment for proposed development projects in which heavy-duty construction equipment would be used (e.g. pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, require all feasible mitigation measures to be implemented to ensure that no damage or disturbance to structures or sensitive receptors would occur. **RDR**

PH 6.13 Transportation Vibration

Require proposed residential and commercial projects located within 200 feet of existing major freeways and railroad lines (e.g. freight, Amtrak, and Caltrain) to conduct a ground vibration and vibration noise evaluation consistent with City-approved methodologies (e.g. Caltrans, Federal Transportation Authority). **RDR**

TABLE 9-1

City of Gilroy Maximum Permitted Outdoor and Indoor Noise Levels

| Land Use Category | Maximum Outdoor L_{DN} (dBA) | Maximum Indoor L_{DN} (dBA) |
|--------------------------|---|--|
| Residential | 60 ¹ | 45 ¹ |
| Commercial | 65 | 61 |
| Industrial | 76 | see note 2 |

L_{DN} - The Day/Night Average Sound Level. Day-night average sound level-the 24 hour A-weighted equivalent sound level, with a 10 decibel penalty applied to nighttime levels.

¹The Outdoor sound levels for residential properties shall be held to 60-dBA L_{DN}, or a maximum of 70-dBA if ALL of the following FINDINGS can be made:

- That feasible sound attenuation measures have been incorporated in the project design;
- That potential noise levels are part of the developer’s disclosure to future residents;
- That interior noise limits established by the General Plan are strictly maintained; and
- Potential noise levels will not jeopardize the health, safety, and general welfare of the public.

² The indoor standards for industrial land uses have been set by the Occupational Safety and Health Administration. The maximum level to be exceeded no more than 10 percent of the time (L10) is 65 dBA, while the maximum level to be exceeded no more than 50 percent of the time (L50) is 60 dBA.

Implementation Programs

| Table 9-2: Potential Hazards Implementation Programs | 2021-2023 | 2024-2028 | 2029-2040 | Annual | Ongoing |
|--|-----------|-----------|-----------|--------|---------|
| <p>1. Seismic Retrofit Feasibility Study for City Facilities Prepare a study to identify all existing City facilities that do not meet current building code seismic standards. The City will use the study to prioritize the funding of capital improvement projects.</p> <p>Implements Policy: PH 2.9 Responsible Department: Community Development</p> | | X | | | |
| <p>2. Flood Control Ordinance Review and maintain the City’s Flood Control Ordinance as needed to regulate construction within flood zones. The ordinance should be reviewed if there are significant changes to the FEMA flood zones map.</p> <p>Implements Policy: PH 3.1 Responsible Department: Community Development</p> | X | X | X | | |
| <p>3. Zoning Ordinance Noise Standards Revise the City’s Zoning Ordinance to incorporate noise/land use compatibility standards as a basic requirement of new development, and to prohibit new noise-sensitive uses in areas where the noise level exceeds the relevant standard and cannot be adequately mitigated.</p> <p>Implements Policy: PH 6.1 Responsible Department: Community Development</p> | X | | | | |

Table 9-2: Potential Hazards Implementation Programs

| | 2021-2023 | 2024-2028 | 2029-2040 | Annual | Ongoing |
|---|-----------|-----------|-----------|--------|---------|
| <p>4. Hazardous Waste Education Program Provide education to the public on the dangers of and ways to properly dispose of hazardous waste. Develop a coordinated, visually-appealing outreach campaign. Provide the information in the City’s quarterly newsletter, on public access television, and through other venues to educate the public.</p> <p>Implements Policy: PH 5.7 Responsible Department: Community Development</p> | | | | | X |
| <p>5. Post Disaster Recovery Plan The City shall prepare a Post-Disaster Recovery Plan following the County’s adoption of their Recovery Framework.</p> <p>Implements Policy: PH 1.6, PH 1.8 Responsible Department: Administration</p> | | X | | | |
| <p>6. Maintain National Flood Insurance Program Compliance The City shall maintain good standing and compliance under the National Flood Insurance Program (NFIP) through the implementation of floodplain management programs that will, at a minimum, meet the requirements of the NFIP, including enforcement of the flood damage prevention ordinance, participate in floodplain identification and mapping updates, and provide public assistance/information on floodplain requirements and impacts.</p> <p>Implements Policy: PH 3.1, PH 3.8 Responsible Department: Public Works</p> | | | | | X |

| Table 9-2: Potential Hazards Implementation Programs | | 2021-2023 | 2024-2028 | 2029-2040 | Annual | Ongoing |
|--|---|-----------|-----------|-----------|--------|---------|
| 7. Map Abandoned Oil and Gas Wells | Identify and map in the City GIS abandoned oil and gas wells. | | X | | | |
| Implements Policy: | PH 2.5 | | | | | |
| Responsible Department: | Community Development | | | | | |