





The Scotts Valley **Safety and Noise Element** addresses risks in Scotts Valley to the community's health and safety, identifying potential hazards and providing policies to protect against and mitigate those hazards.

This section includes the following elements:

- Safety
- Noise





SAFTEY & NOISE ELEMENT

Introduction

California State law requires that a General Plan include both a Safety and a Noise Element. This General Plan combines these two elements into a single Safety and Noise Element that addresses the concerns and satisfies the legal requirements for both.

The purpose of the Safety Element of the General Plan is to reduce death, injuries, property damage, and the economic and social dislocation resulting from natural hazards. These hazards include fire, flooding, geologic & seismic, and hazardous materials spills. The element also discussion the City's emergency preparedness plan to provide for the safety of the community in the event of one of these emergencies.

The Noise element of the General Plan complies with California Government Code Section 5302 (f) to control and abate environmental noise and to protect citizens from excessive noise exposure.

Current Status

Recommended by Planning Commission to City Council – DATE

Accepted by City Council at Public Hearing – DATE





Safety Element Background and Context

Existing Conditions

The Safety Element is tied to the Land Use, Community Services and Facilities, and Mobility Elements of the General Plan. Land use policies, standards, and designations must be critically reviewed and when necessary, land use restricted based on potential safety hazards. The Community Services and Facilities Element focuses on maintaining a high level of fire, police, and other public services to protect the physical environment, as well as residents, against the natural hazards of the Planning Area. The Mobility Element must incorporate evacuation routes and street standards that permit the residents, as well as emergency vehicles, to continue to move throughout the area in times of natural disasters.

Fire Hazards

Any fire, regardless of size or location, poses a threat to life and property until it is contained or controlled. It must be recognized that all fires are hazardous and fire prevention and safety measures must be incorporated into all land use planning decisions.

Fire hazards are generally categorized into two main types: 1) Wildland Fires. A fire in an area of combustible vegetation that generally occurs in the countryside, rural area, or an undeveloped portion of a parcel. 2) Structure Fires. Fires which involve specific sites and structures including residential, commercial, utility, and industrial type occupancies.

The State of California experiences large wildland fires almost every year. The factors contributing to fires – highly flammable brush, rugged terrain, long arid summers, dry northeast winds, periods of drought, and an expanding population – are all typical characteristics of Scotts Valley. In addition to wildland fires, Scotts Valley experiences fires from structural, vehicular, utility, and other sources as well. Fires in the Scotts Valley Planning Area tend to be structural in nature year-round, and wildland fires in nature during summer months.

Fire Protection Problems

Various land uses require minimum water flows for adequate fire project (see Appendix BB of the California Fire Code, Table BB105.1: Minimum Required Fire-Flow and Flow Duration for Buildings). Fire hydrant capacities within the Scotts Valley Planning Area present some fire protection challenges for the Fire District in meeting these flows. Hydrant capacities range from 1,000 gpm (in 60% of the District), 500-1,000 gpm (30%) to 0-500 gpm (10%). Service is especially limited in the higher elevations. Most the valley floor, however, has flows in excess of 2,000 gpm with storage of 2.8 million gallons. Thus, all the commercial and industrial areas of Scotts Valley are adequately protected; however, specific areas experience water supply and pressure problems. As a result, the insurance rating for parcels within 5 miles of a Scotts Valley Fire District station is 2. Parcels greater than 5 miles from the nearest Scotts Valley Fire District



station have an insurance rating of 10. The Insurance Services Office, Inc. (ISO®) evaluates fire departments in the United States. Based on this evaluation, they assign a rating between 1 and 10 for each department – 1 being the best and 10 being the worst. This rating reflects the overall effectiveness of the department and helps determine the fire insurance premiums for property owners in that department's jurisdiction.

Other problems regarding provision of fire service involve restrictions due to road widths and structural obstructions. Problem areas are located around the Granite Creek-Southwood Drive "Ridge," Cadillac Drive, Bean Creek Road, and Lockhard Gulch-Nelson Road. The Scotts Valley Fire District has a minimum road width requirement of 24-foot streets with no parking on either side, 28 feet with parking on one side, and 36 feet with parking on both sides. Approved turnarounds must comply with Santa Cruz Fire Prevention Officer Standard FPO-015 as adopted by the Scotts Valley Fire District. The standard sets minimum width and radius for cul-de-sac, Hammer-T, and lateral slip type of turnarounds.

Another critical roadway problem is the long dead-end streets with no emergency outlets. The Scotts Valley Fire District requires that any dead-end roadway greater than 150' have an approved turnaround in accordance with Santa Cruz Fire Prevention Officer standard FPO-015. This physical restriction presents a safety hazard. Figure SN-1: Fire Hazard Areas, identifies major fire protection areas.

Flood Hazards

The Scotts Valley Planning Area is subject to flood hazards resulting from heavy rainfall, causing the overflow of stream courses. Scotts Valley is principally drained by Carbonera Creek, which begins 1.3 miles north of the City limits. The creek runs through the City parallel to Highway 17, and eventually joins Branciforte Creek. The creek has two main tributaries in Scotts Valley: Camp Evers Creek runs south of Mt. Hermon; West Branch Creek runs east of Glenwood Drive. These creeks have been altered by road development, bridges, and culverts.

Insufficient channel capacity to handle peak flood flows, obstructions (such as vegetation or structures) in the stream channel, and poor land use practices can increase flood potential. Runoff occurs when storms of high intensity and/or long duration exceed the soil's ability to absorb water. Runoff rate and volume is also influenced by slope and vegetative cover. The greater the slope, the less chance rainfall has to infiltrate into the soil. Infiltration potential is enhanced by vegetation which serves to reduce the velocity of raindrops striking soil surfaces. In undeveloped areas where there are fewer streets and structures, absorption levels can be excellent. In intensely developed area where streets, parking lots, and structures cover much of the ground surface, absorption is extremely low because these materials are often impermeable.



Urban development conditions contribute to erratic runoff rates and flooding in areas where there is an inadequate storm drainage system. When the capacity of storm drains is exceeded, flooding occurs. Development in these flood-prone areas increases hazards to life and property.

The City of Scotts Valley revised its Storm Water Quality Plan in 2009. The plan recognized an increased need for adequately sized drainage facilities. Both in-stream and off-stream drainage facilities were identified, provided a cost estimate, and prioritized for both private and public properties (SWMP, 2009).

In addition to flood control improvements, the Federal Flood Insurance Program makes flood insurance available to residents and businesses in flood hazard areas after the hazards of flooding are estimated. Insurance rates vary according to the expected severity of the hazard. To participate in the program, however, a community must regulate development in the hazard area to not increase any hazards.

The City regulates flood hazards by requiring the floor elevation of new development to be at least one foot above the 100-year flood height and preventing development which may cause floodwaters to flow at hazardous velocities. The 100-year flood hazard area was mapped by FEMA on Flood Insurance Rate Maps in 2012. These maps are available in the City's Public Works and Planning Departments and are used to indicate the necessity for special review prior to project approval. Figure SN-2: Flood Zones illustrates the high-risk flood areas in the Planning Area.

Geologic Hazards

Geologic Setting

The Scotts Valley Planning Area is relatively close to four major fault zones. These fault zones are the San Andreas Fault Zone, located approximately five miles to the northeast of the Planning Area; the Zayante Fault Zone, located to the north within 1.5 miles of the Planning Area; the Butano Fault Zone, located approximately four miles to the north; and, the Ben Lomond Fault Zone, located approximately one mile to the southeast of the Planning Area. Based on the major historic earthquakes which have occurred along these faults, each is considered to be active or potentially active, except for the Ben Lomond Fault for which insufficient data exists to determine its activity. A relatively short fault (1.5 miles), the Bean Creek Fault, is located along the lower portion of Bean Creek just outside of the Planning Area to the west, although there is insufficient data to classify this fault zone as well.

Both the Zayante Fault and the Butano Fault are considered potentially active and capable for producing major earthquakes of major earthquakes of magnitude 7.4 and 6.4 on the Richter Scale, respectively. Both faults exhibit evidence of activity and are tied into the San Andreas Fault system. The Ben Lomond Fault is also considered a potentially active fault.



Seismic Hazards

The following includes descriptions of potential seismic hazards which may be experienced in the Scotts Valley Planning Area. Seismic hazards can be divided into five basic categories: faulting or ground rupture, ground shaking, liquefaction, seismic slope failure, and seismically induced water waves. Seismically induced water waves would not directly affect Scotts Valley based on the Planning Area's location in the Santa Cruz Mountains. Seismic slope failure includes discussion of landslides and erosion.

Faulting and Ground Rupture

Faulting and ground rupture occur when one side of a fault moves during an earthquake horizontally or vertically in relation to the earth on the other side. The earth's surface may also rupture, but this does not occur every time a fault moves. Structures placed over a fault stand a high possibility of failure should faulting and ground rupture occur. There is no indication that surface rupture is a hazard in the Planning Area as no known faults traverse it.

Ground Shaking

Ground shaking is vibration of the ground caused by earthquakes and often results in damage to structures. The extent of damage depends on: characteristics of underlying soils and rocks, design and configuration of the structure, quality of materials and workmanship used in construction, location of epicenter and magnitude of the earthquake, and duration and character of the ground motion. Damage to structures due to ground shaking may occur if tall, multi- story buildings are located on deep saturated soils and if the periods of vibration of the structures and the ground are similar. Potential for damage to buildings is generally minimized for well-construction, single-story wood-frame buildings. Of all the hazards associate with major earthquakes, ground shaking will have the most pervasive impact in the Planning Area. Alluvium is highly responsive to ground shaking. Much of the present development along Scotts Valley Drive and Mt. Hermon Road is located on alluvium and therefore will be subject to strong shaking during a major earthquake. Shaking often will trigger landslides, particularly on slopes of 15% or greater.

Liquefaction

Ground shaking may cause liquefaction of recent alluvial and terrace deposits. Liquefaction occurs when non-cohesive surface or sub-surface materials are saturated and become liquid-like under the influence of ground shaking. This may result in ground failure. The longer the shaking, the greater the potential for ground failure.

The alluvial deposits of the Planning Area have a moderately low potential for liquefaction except for younger alluvium found predominately along creeks and other water courses; these



have a moderate potential for liquefaction. Figure SN-3: Liquefaction Potential, illustrates liquefaction hazards areas in the Planning Area.

Seismic Slope Failure

Seismic slope failures include earthquake caused slope failure, landslides, and liquefaction. The severity of this hazard depends on the duration and intensity of shaking, location and magnitude of the quake, and the characteristics and condition of the ground at the time. The longer the shaking, the greater the potential for ground failure. Lurch cracking and lateral spreading are other types of slope failure. Lateral spreading occurs along creek banks or the open side of fill embankments.

Landslides

Landslides due to earthquakes involve the movement of rock, soil, mud, and debris. The range from minor slides to major landslides involving millions of cubic yards. Steep slopes found in the Planning Area could offer such mass movements. Landslides may occur as an effect of nearby moderate to major earthquakes. Figure SN-4: Landslide Deposits, displays areas of known or suspected landslides as mapped by the United State Geological Survey. As existing landslide data has been recognized to be lacking in detail for the Planning Area, previously prepared planning documents have stressed the preparation of site specific studies to identify landslide hazards that may exist at any one location.

Down slope movement may be rapid or so slow that a change of position can be noted only over a period of weeks or years. A landslide can range from several square feet to several square miles in area. Damage to structures can range from slight to total destruction. Conditions that contribute to landslide occurrence in the Planning Area include: loose and weakly consolidated soils or rock; steep slopes; amount, intensity, and volume of rainfall; poor drainage and erosion. Human activity often contributes to slope instability by inappropriate or poorly engineered grading, removal of vegetation, and alteration of surface and subsurface water conditions. In some situations, septic tanks and landscape watering can increase the landslide potential by saturating slopes.

Erosion

Erosion is a natural process caused by wind, water, and gravitational forces. However, hazards due to erosion are difficult to separate from flooding and land sliding hazards. In some cases, erosion is a result of flood and landslide conditions. In others, prolonged erosion can cause rapid water runoff and land sliding.

The removal of soil from site and its subsequent deposit can create two erosion-related problems. Deposits of eroded material can affect flood plains, cause sedimentation of rivers,



lakes, reservoirs, and may clog drainage structures. Activities which expose soils to the erosive action of water and wind may accelerate erosion.

Reducing erosion hazards in urban areas is the responsibility of persons who modify the land surface and the city or county which reviews and controls development. Property owners assume the continuing responsibility of erosion control through the maintenance of landscaping and drainage systems.

Geologic Hazard Reduction

The most effective way to reduce threats to public health and safety from geologic hazards is to continue to effectively regulate new development. The thrust of a risk reduction program should be toward conscientious land use decision-making which considers geologic hazards. Geologic hazard maps should be updated as new information becomes available. Property owners and developers will be given the opportunity to demonstrate, through on-site investigates, whether or not the hazard potential areas on existing maps should be revised to reflect data derived from more detailed and current studies.

Reducing Landslide Potential

A large portion of the Planning Area consists of sloping land with moderate to high landslide potential. The probability of landslide occurrence increases as slope increases. Most developments in areas with steep slopes require large amounts of earth movement and a high degree of cut and fill activity. This increases the potential for landslide problems. Detailed engineering and geologic studies should accompany any proposal for development within these areas. Studies should demonstrate to the satisfaction of the City that the proposed projects minimize environmental impacts and risks to human life.

Special planning and safety considerations shall be made for moderate and steep slopes in the Planning Area. More gentle slopes allow a greater degree of development flexibility. Engineering and geologic studies should be required for development within moderate and steep slope areas to evaluate the stability of site landforms and the site's suitability for the proposed use. The existing character of the hills of the Planning Area should be maintained by retaining, to the greatest extent possible, the natural contour of ridges, natural drainage courses, and natural rock outcroppings. Grading should respect the natural topography, and high cut and fill slopes should be avoided. Roads and driveways should attempt to follow the natural contours of a site. Provisions also should be made for siltation and erosion control and re-vegetation of all graded areas. Increases in water runoff quantities and velocities over natural terrain should not be permitted.

Landslide damage potential can be reduced by such alternatives as restricting development on or near landslide deposits, or permanently stabilizing slides masses. Landslide damage can be



avoided by simply leaving hazardous areas undeveloped. Small landslide potential areas may be totally removed. The soil removed can be used elsewhere as compacted fill. In all cases, a first and critical step is to recognize the existence of an old slide and the potential for future slope stability problems. Potential slope stability problems can often be anticipated in areas where other land sliding activity has previously occurred.

Hazardous Materials

Overview

Hazardous materials include certain products which are corrosive, ignitable, toxic, radioactive, flammable, or explosive and reactive. In their natural state, these materials may be solid, liquid, or gas. Actual materials regulated are defined by Health and Safety Code section 25501, as amended. State law mandates that each city and/or county identify and register hazardous materials that are being used. The City of Scotts Valley has adopted an ordinance (Ord. No. 107) which regulates the safe storage and handling of all hazardous materials. The Santa Cruz County Department of Environmental Health Services is responsible for enforcing State hazardous materials and waste regulations in Scotts Valley (SCCDHS, 2015).

The Santa Cruz County Hazardous Materials Team (SCCHMT) responds to hazardous material response emergencies in the Planning Area. The SCCHMT is a collaboration between the County of Santa Cruz, the cities of Scotts Valley, Santa Cruz, Capitola, Watsonville, CA State Parks, and the University of California, Santa Cruz (SVFD, 2015).

The major safety issues involved hazardous materials can be classified into two categories: (1) fire; and, (2) public exposure to toxic substances as a result of a release. A major problem with chemical fires is their secondary effects. Burning chemicals can generate toxic vapors, thereby greatly increasing the potential for adverse health effects from both the original material and its combustion product. Releases may occur in areas where hazardous materials are being stored, handled, transported, or disposed. Hazardous material releases may cause substantial environmental degradation and irreparable damage to natural resources.

Use and Storage of Hazardous Materials

Use and storage of hazardous materials is of particular concern to adjacent land uses. Hazards are created by leaks or releases which contaminate air, soil, or water, cause explosions, and/or cause fires.

Hazardous materials may be used at any given time by a number of industries within the City. Motor fuels, waste oils, propane, and other petroleum products are frequently overlooked as constituting the largest quantity of stored hazardous materials. However, other chemicals are used by a wide variety of businesses including electronic companies, cleaning establishments,



and various medical and veterinary businesses. Hazardous materials in the form of household products are also used by the average consumer.

Household hazardous waste is collected by the Santa Cruz County Hazardous Waste Program. The closest hazardous waste collection facility to Scotts Valley is the Buena Vista Landfill, which is located 20 miles southeast of Scotts Valley.

Scotts Valley Hazardous Materials Plan

The purpose of the City's Hazardous Materials Storage Plan is to protect health, life, resources, and property through prevention and control of unauthorized discharges of hazardous materials. The ordinance is implemented through a permitting process. All businesses or persons that store hazardous materials must have a permit issued by the Santa Cruz County Department of Environmental Health Services.

The issuance of a permit is based on type or quantity of material, proper storage, emergency response plans, sampling, monitoring inspections, and testing programs. The ordinance provides for full cost recovery through a schedule of fees which is based on type and quantity of materials stored. A variety of commercial/industrial users of hazardous materials within the City. These materials may include bulk storage of fuels, solvents, resins, and a wide variety of other solids, liquids, and gases.

Emergency Preparedness

The City has an Emergency Operations Plan (last updated in 2015). The plan provides for the safety of the community in the event of a major emergency such as earthquake, flooding, wildland fires, and hazardous materials releases. The plan provides the base for direction and control of emergency operations and continuity of government, saving life and property, repairing and restoring essential systems and services, managing resources, and coordinating operations with other jurisdictions. The Chief of Police serves as the Emergency Services Coordinator and the City Manager is the Emergency Services Director. The City's Emergency Operations Center (EOC), which functions as a communications and coordination center in the event of a disaster or large-scale emergency, is located in City Hall.

[Revise below per discussion with Russ and SVPD]

The Emergency Operation Plan (EOP) currently does not contain evacuation routes for site-specific emergencies, such as flooding and water tank failures. Other evacuation routes are determined on a case by case basis by EOC personnel. These proposed routes are broken down into three categories: freeways, arterials, and major collectors. Figure SN-5: Evacuation Routes, displays these evacuation routes, as well as places of assembly in case of emergency situations. These places of assembly were identified due to their ability to accommodate significant



numbers of people, their relative location to freeways and arterials, and their geographic location. The direction of movement is denoted by arrows to promote safe and efficient evacuation of residents.



Noise Element Background and Context

The Noise Element of the General Plan for the City of Scotts Valley has been prepared in compliance with California Government Code Section 5302(f) to control and abate environmental noise and to protect citizens from excessive noise exposure.

Scotts Valley's most significant noise concerns stem from roadway noise, particularly along well-traveled corridors such as Highway 17 and local arterials. Noise is generally defined as unwanted sound, and may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Noise is especially a concern near noise sensitive uses, which are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of and, such as residences, schools, and hospitals.

Definitions

Decibel, dB: A unit of measurement describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

A-Weighted Level: The sound level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

L10: The A-weighted sound level that is exceeded ten percent of the sample time. Similarly, L50, L90, etc.

Leq: Equivalent energy level. The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is typically computed over 1-, 8-, and 24-hour sample periods.

CNEL: Community Noise Equivalent Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7 p.m. to 10 p.m. and after addition of 10 decibels to sound levels in the night from 10 p.m. to 7 a.m.

Ldn: Day-Night Average Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m. (Note: CNEL and Ldn represent daily levels of noise exposure averaged on an annual or daily basis, while Leq represents the equivalent energy noise exposure for a shorter time period, typically one hour.)

Noise Contours: Lines drawn about a noise source indicating equal levels of noise exposure. CNEL and Ldn are the metrics utilized herein to describe annoyance due to noise and to establish land use planning criteria for noise.

Ambient Noise: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.



Definitions

Intrusive Noise: That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence, and tonal or informational content as well as the prevailing noise level.

Noisiness Zones: Defined areas within a community wherein the ambient noise levels are generally similar (within a range of 5 dB, for example). Typically, all other things being equal, sites within any given noise zone will be of comparable proximity to major noise sources. Noise contours define different noisiness zones.

Noise Measurements

Noise intensity is measured on a decibel (dB) scale. On this scale, noise at zero decibels is not audible, while noise at 120 to 140 decibels is painful and can cause ear damage. There are several different ways to measure noise. Community noise is typically measured in decibels with A-weighting (dBA). The dBA scale provides compensation for human sensitivity by discriminating against frequencies to approximate the sensitivity of the human ear. For evaluating noise over extended periods, the "Day-Night Noise Level" scale (Ldn) and the "Community Noise Equivalent Level" (CNEL) are measures of the average equivalent sound level (Leq) during a 24-hour period. These measurements of noise account for greater sensitivity of noise receptors at night by adding 5 decibels (for evening hours between 7:00 pm and 10:00 pm) and 10 decibels (for evening hours between 10:00 pm and 7:00 am) to nighttime noise levels, and averaging the noise over a full day.

Existing Noise Sources

The primary noise source in Scotts Valley is largely from automobile traffic (cars and trucks) traveling on roadways. As a general rule, peak pass-by noise levels for passenger vehicles on local streets are 60 to 70 dBA at 25 feet. Buses, trucks, motorcycles, and poorly muffled cars produce pass-by noise level 5 to 15 dBA higher. The sound level of noise from traffic in decibels is related to the amount of traffic. Noise intensity increases as the proximity of the noise source physically approaches the listener to a greater degree. A doubling or halving of traffic volume typically results in a 3-dB increase or decrease, respectively, in the traffic sound level. A change of 3 dB is generally considered to be the threshold for a perceptive change in sound. In general, a 10-dB increase in noise level is perceived as a doubling in loudness.

Primary roadways that generate noise in Scotts Valley are State Highway 17, Scotts Valley Drive, and Mount Hermon Road. Aircraft flying overhead is occasionally audible in Scotts Valley, but is not a significant noise source relative to traffic noise. Other noise sources typical in this residential location include dogs barking, leaf blowers, and children playing. These sources are not significant compared to the noise produced by the dominant transportation sources.



Sensitive Receptors

Noise sensitive land uses are typically given special attention to achieve protection from excessive noise. Noise sensitive land uses include residential areas, hospitals, libraries, schools, parks, and retirement homes. Highways and major arterials, such as Highway 17, Scotts Valley Drive, and Mount Hermon Road would have an effect on sensitive land uses.

Existing and Future Noise Conditions

Figure SN-6: Noise Contours displays the general level of noise conditions resulting from traffic traveling on roadways in Scotts Valley, rated on a scale from 60 dBA to 65 dBA to 70 dBA, which represent areas bordering roadways experiencing Moderate to High to Very High traffic noise levels. As would be expected, the highest noise levels are generated immediately adjacent to the three major roadways in Scotts Valley where traffic volumes are greatest: Highway 17, Scotts Valley Drive, and Mount Hermon Road.

Noise and Land Use Compatibility Guidelines

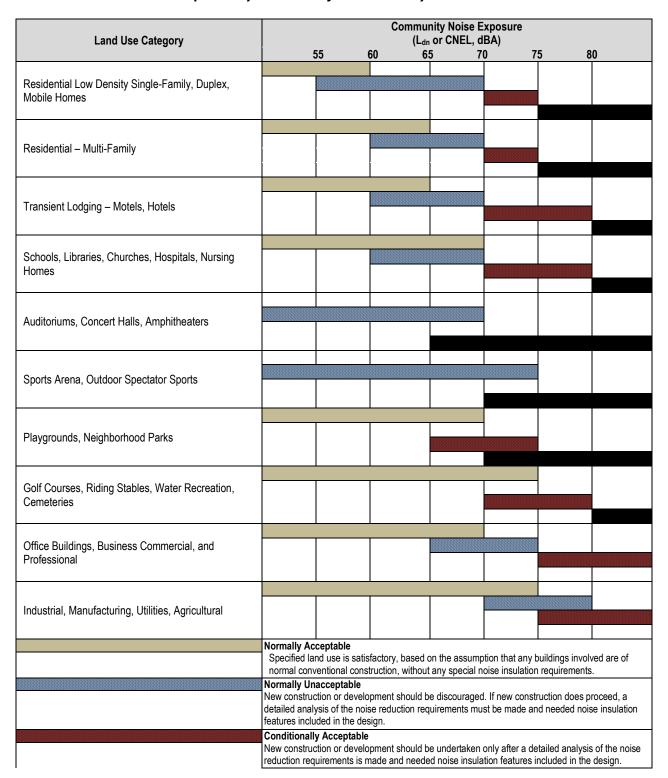
The objective of the noise and land use compatibility guidelines is to provide the community with a means of judging the noise environment that it deems to be generally acceptable and to minimize noise-related complaints from residents. The compatibility policies shown in Table SN-2: Land Use Compatibility Standards for Community Noise Environments should be used in conjunction with the future noise intensity levels in Figure SN-6: Noise Contours to identify locations that may require special treatment to minimize noise exposure.

If ambient noise levels in the area of a proposed project would exceed "normally acceptable" thresholds for the proposed land use category as shown in Table SN-2: Land Use Compatibility Standards for Community Noise Environments, the City will require a detailed analysis of feasible noise reduction requirements. As needed, noise insulation features must be included in the design of such projects to reduce exterior noise levels to meet the acceptable thresholds, or, for uses with no active outdoor use areas, to ensure maintenance of acceptable interior noise levels for the proposed land use.

[Table to be revised to eliminate overlap in standards between categories]



Table SN-2: Land Use Compatibility Standards for Community Noise Environments





	Clearly Unacceptable
New construction or development clearly should not be undertaken.	New construction or development clearly should not be undertaken.



Goals, Policies & Actions

Goals, policies, and actions included below are derived from one of three formats: original from the 1994 General Plan (as identified with parentheses indicating original 1994 numbering); revised from the 1994 General Plan (as identified with parentheses indication original 1994 numbering followed by "revised"); or, as new goals, policies, and actions proposed for the updated General Plan.

Goal SN-1 To protect human life and prosperity and to minimize injury, economic damage, and social dislocation resulting from disasters related to fire. (SG-463, revised)

Policies

Region

Policy SN-1.1 Fire Protection Cooperative Agreement

Maintain cooperative fire protection and fire prevention agreements with the Scotts Valley Fire District.

Policy SN-1.2 Public Education on Fire Awareness

Continue to support the Scotts Valley Fire District fire safety and fire prevention public education programs.

Policy SN-1.3 Invasive Species

Cooperate with the California Department of Forestry and Fire Protection to reduce any identified significant fire threat resulting from invasive species which are not a constituent of protected habitat areas.

Policy SN-1.4 Emergency Access

Coordinate with public safety providers to implement feasible improvements and/or access plans for roadways with identified fire and emergency access deficiencies.

City

Policy SN-1.5 City-Owned Space

Maintain City-owned open space in a matter that minimizes fire hazards.



Policy SN-1.6 Fire Protection Problem Areas

In fire protection problem areas, development shall be permitted only after mitigation measures satisfactory to the Scotts Valley Fire District are developed to prevent or control spread of fire and provide life safety to occupants as recommended by the fire district. (SP-465, updated)

Policy SN-1.7 Private Roadway Standards

The City shall adopt standards for private roadways, establishing requirements for width and structural sections which meets the requirements of the Scotts Valley Fire Protection District. (SA-470)

Policy SN-1.8 Roadway Standards - Clearance

Roadway standards shall require that roads have an overhead vertical clearance of 15 feet. Horizontally, roadways are to maintain an unobstructed width for the entire length, including turnouts, turnarounds, and driveways, per requirements of the Scotts Valley Fire Protection District. (SA-471, updated)

Policy SN-1.9 Roadway Standards – Access Roads

Roadway standards shall require that an access road not end father than 150 feet from any portion of a building. A turnaround which meets the requirements of the fire district shall be provided at the end of the road where the road exceeds 150 feet and dead-ends. (SA-472) [Confirm with SVFD]

Policy SN-1.10 Roadways Standards – Private Bridges or Crossings

Roadway standards shall require that private bridges or crossings which serve as part of an "access road be at least 20 feet wide and shall meet the minimum Caltrans standard weight rating of H-20". Bridges should be certified every five years by a registered engineer. (SA-473)

Policy SN-1.11 Fire Suppression Water Availability

The City shall require that new development have water available in the area pursuant to Appendix BB, Table BB105.1, of the California Fire Code: Minimum Required Fire-Flow and Flow Duration for Buildings. Water availability shall be provided by the appropriate water purveyor. (SP-474, updated)



Policy SN-1.12 Fire Sprinkler Systems

The City, in cooperation with the fire district, shall insure that all buildings constructed include fire safety features, such as automatic fire sprinkler system, class "C" or better roof cover for structures in the non-wildland fire hazard area/Local Responsibility Area (LRA), Class "B" or better roof covering for moderate or high wildland fire hazard area/ State Responsibility Area (SRA), fire detection, and alarm systems. (SP-476, updated)

Policy SN-1.13 Landscape Vegetation – Fire Safety

The City, in cooperation with the fire district, shall discourage the use of landscape vegetation that may contribute to the spread of fire for developments within the urban interface areas. (SP-478)

Policy SN-1.14 Minimize Fire Hazards

Support the Scotts Valley Fire District efforts to minimize fire hazards through the removal of vegetation, hazardous structures, materials, and debris.

Project

Policy SN-1.15 Fire District Review

Encourage early review of proposed development project plans by the Scotts Valley Fire District.

Policy SN-1.16 Development in Hazardous Fire Areas

All new development and existing structures in hazardous fire areas shall provide adequate clearance of brush and vegetative growth from structures and roadways in accordance with the Uniform Fire Code. (SA-466)

Policy SN-1.17 Maximum Fire Protection

The City shall require new development to provide adequate improvements for maximum fire protection. (SP-468)

Policy SN-1.18 New Construction Fire Safety Features

New development shall be approved only if adequate water supply for fire protection standards for minimum flow requirements and duration of flow can be met as directed by the Scotts Valley Fire District. (SA-475)

Policy SN-1.19 Fire District Review

The Building and Planning Departments shall continue to refer all proposed building permits to the fire district for review and conditioning. (SA-477, revised)



Actions

Action SN-1.1 Fire Prevention Public Information

The City, in conjunction with the Scotts Valley Fire District, shall distribute information through such methods as posters and/or workshops to educate the public regarding fire prevention as it relates to landscape vegetation. (SA-480, updated)

Action SN-1.2 Fire Prevention Program

The City shall support the Scotts Valley Fire District with their on-going fire prevention program for identified fire hazard zones within the Planning Area. (SA-467, updated)

Action SN-1.3 Design Review Guidelines Amendment

The City should amend the Design Review Guidelines to include review of plans regarding the discouragement of use of landscape vegetation that may contribute to the spread of fire for developments within the urban interface areas. (SA-479)

Action SN-1.4 Sign/Address Marking Visibility

Monitor the visibility of road signs and address markings of businesses and residences, and address visibility issues to maximize fire response times. Address identification shall be provided in accordance with Section 505 of the California fire Code.

Goal SN-2

To protect human life and prosperity and to minimize injury, economic damage, and social dislocation resulting from disasters related to flooding. (SG-463, revised)

Policies

Region

Policy SN-2.1 Flooding Hazards Regional Collaboration

Participate in regional, State, and federal efforts to reduce flooding hazards, including efforts to maintain creeks and other waterways and address flood hazards on a watershed level.



City

Policy SN-2.2 Flood Protection Ordinance

Maintain the City's Flood Protection Ordinance. (SA-483)

Policy SN-2.3 Development in Flood Prone Areas

Proposed development in known flood prone areas shall be approved only if adequate measures are provided to reduce potential flood hazards. (SP-482, revised)

Policy SN-2.4 Flood Control Facilities

Development or new or expansion of existing flood control facilities to protect individual properties shall be permitted only when it can be determined that such measures do not substantially increase the flood or erosion hazards to other properties. (SP-484)

Project

Policy SN-2.5 Geotechnical or Hydrological Analysis

The City shall require a geotechnical or hydrological analysis to assess potential impacts of new development on adjacent and downstream properties and on the designated floodplain to determine needed flood control facilities. (SA-485)

Actions

Action SN-2.1 Hazard and Floodplain Information

Continue to work with appropriate local, State, and federal agencies, particularly the Federal Emergency Management Agency, to maintain the most current flood hazard and floodplain information for Scotts Valley.

Action SN-2.2 National Flood Insurance Program

Continue to participate in the Federal Emergency Management Agency National Flood Insurance Program (NFIP). Require all new buildings and structures to be established in a manner consistent with the NFIP floodplain management building requirements.



Goal SN-3

To protect human life and prosperity and to minimize injury, economic damage, and social dislocation resulting from disasters related to geologic and seismic events. (SG-463, revised)

Policies

Region

Policy SN-3.1 Seismic and Geologic Hazards Maps

The City shall continue to use liquefaction, landslide, and other seismic and geologic hazard maps prepared by the City and County to assess geotechnical hazards within the Planning Area. These maps shall be updated as new and more accurate information becomes available. (SP-487, revised)

City

Policy SN-3.2 Hazard Considerations

Continue to incorporate geotechnical hazard data into future land use decision-making, site design, and construction standards.

Policy SN-3.3 Development Restrictions

Prohibit structural development in areas where seismic and geological hazards cannot be mitigated.

Policy SN-3.4 Seismic Analysis

Continue to incorporate seismic risk analysis into the City's on-going building inspection program.

Policy SN-3.5 Retrofits

Encourage retrofitting of structures, particularly older buildings, to withstand earthquake shaking and landslides consistent with State Building Codes.

Policy SN-3.6 Public Outreach – Seismic and Geotechnical Hazards

Actively promote public education, research, and information dissemination on seismic and geotechnical hazards.

Policy SN-3.7 Critical Facilities and Services

Ensure that seismic hazards are mitigated to the greatest extent possible for critical public facilities, infrastructure, and emergency services.



Policy SN-3.8 State Standards

Continue to enforce all applicable requirements of the most current California Building Code and the California Building Standards to minimize public exposure to seismic and geologic hazards.

Policy SN-3.9 Transportation Infrastructure

Collaborate with Caltrans, the Santa Cruz County Regional Transportation Commission, and other relevant agencies to ensure the seismic safety and structural integrity of all bridges and overpasses in Scotts Valley.

Project

Policy SN-3.10 Geotechnical Evaluations

In a geologic hazard area, development shall be approved only after a geotechnical evaluation is completed by a registered geologist, and only if adequate measures are provided to avoid or substantially reduce any identified hazard. Where new development proposed for areas of known or suspected geologic hazards, as identified in City or County maps or where other information obtained by the City indicates geologic hazards exist in an area proposed for development, a detailed geotechnical and/or geologic report shall be prepared and submitted to the City as a part of the application or environmental review process. (SP-489, revised; SP-490, revised)

Actions

Action SN-3.1 Seismic and Geologic Hazards Maps

Update City seismic and geologic hazards maps for the City and Planning Area as new and more accurate information becomes available. Continue to collaborate with the County on updating of seismic and geologic hazards maps for the City and Planning Area. The City shall review and revised existing seismic and geologic hazards maps at a minimum of every two years for the adequacy. (SA-488, revised)

Action SN-3.2 Hillside Residential Development

The City shall implement the provisions of the Zoning Ordinance as it may be modified from time to time relating to hillside residential development. (SA-491)

Action SN-3.3 Data Accuracy

The City shall periodically review the General Plan, Zoning Ordinance,



Subdivision Ordinance, and Uniform Building Code to ensure that geotechnical data and information relating to seismic hazards is current and accurate.

Goal SN-4

To protect human life and prosperity and to minimize injury, economic damage, and social dislocation resulting from disasters related to hazardous materials. (SG-463, revised)

Policies

Region

Policy SN-4.1 County Coordination

Continue to coordinate with the Santa Cruz County Department of Environmental Health Services on enforcement of State and local statutes and regulations pertaining to hazardous materials and waste storage, use, and disposal.

Policy SN-4.2 Storage and Handling Hazardous Materials

The City, in coordination with the County Department of Environmental Health Services, shall control the use storage and handling of hazardous materials to protect the health and welfare of the life, environment and property within the community of Scotts Valley. Control of hazardous materials waste and disposal of hazardous materials shall be consistent with state requirements. (SP-493, revised)

Policy SN-4.3 Management and Inspection

The County shall be the administering authority on behalf of the City in the management and inspection program of all facilities storing and/or using a hazardous material or substance. The County shall be responsible to ensure that all facilities storing and/or using hazardous materials or substance maintain a current permit and approved hazardous materials management plan. (SA-496, revised; SA-497, revised)



City

Policy SN-4.4 Significant Threat

Development posing a significant environmental threat from the use of hazardous materials or chemical shall not be permitted by the City. (SP-498)

Policy SN-4.5 Underground Storage Tanks

Underground storage tanks may be permitted provided the installation conforms with the requirements of Chapter 6.7 of Division 20 of the State Health and Safety Code and all regulations pertaining to underground storage tanks. (SP-499)

Policy SN-4.6 Above Ground Storage Tanks

Above ground storage thanks may be permitted provided the installation conforms with the requirements of Chapter 6.6.7 of Division 20 of the State Health & Safety Code. (SP-500)

Policy SN-4.7 Sensitive Receptors

Prohibit land uses and development that emit obnoxious odors, particulates, excessive light or glare, or other environmentally sensitive contaminant from being located near schools, community centers, senior homes, or other sensitive receptors.

Policy SN-4.8 Green Building

Encourage green building practices that reduce potentially hazardous construction materials.

Policy SN-4.9 Hazardous Material Program

The City shall continue to administer through the County Comprehensive Hazardous Materials Program, pursuant to Chapter 6.95 of the California Health and Safety Code. (SA-494, revised)

Policy SN-4.10 Above-Ground Storage Tank Relocation

The City shall encourage relocation of above-ground propane tanks to areas of lower population density and activity. (SA-501, revised)

Project

Policy SN-4.11 Mitigation Processes

Mitigate hazard exposure from new development projects through the environmental review process, design criteria, and standards development.



Policy SN-4.12 Site Assessments

Where deemed necessary, based on the history of land use, require site assessments for hazardous and toxic soil contamination prior to approving development project applications.

Actions

Action SN-4.1 City Staff Training

Provide on-going training for appropriate City personnel in hazardous material response and handling.

Goal SN-5 To maximize post-disaster relief capabilities and recovery operations. (SG-502)

Policies

Region

Policy SN-5.1 Coordination with Other Agencies

Coordinate preparation efforts for natural and human-made disasters with the Santa Cruz County Office of Emergency Services, neighboring jurisdictions, and other governmental agencies.

Policy SN-5.2 Community Groups

Support the efforts of neighborhood and civic organizations to prepare for disasters.

Policy SN-5.3 County Emergency Response Plan

Work with the Santa Cruz County Emergency Services Administrator to periodically review the County-wide Emergency Response Plan and revise as needed to ensure adequate disaster preparedness.



Policy SN-5.4 Emergency Notification Plan

Work with local and County emergency services to properly notify City residents when an emergency arises. Utilize a variety of emergency notifications which include; Reverse 911 calling, NIXLE emergency notification, and social media.

City

Policy SN-5.5 Emergency and Evacuation Routes

Maintain a current and complete system of emergency and evacuation routes serving all areas of the City and Planning Area.

Policy SN-5.6 Disaster Preparedness Exercises

The City shall hold disaster preparedness exercises frequently enough to maintain the efficiency of participating mutual aid agencies. (SP-508)

Policy SN-5.7 Emergency Response Deficiencies

The City should provide sufficient funds and/or training as necessary to fulfill any emergency response deficiencies that may be within the City's responsibility and for which resources are available. (SP-511)

Policy SN-5.8 Evacuated Area Scene Security

The City should provide sufficient personnel as necessary as to protect life and property in disaster areas where mandatory evacuation protocols have been enacted.

Actions

Action SN-5.1 Emergency Preparedness Plan

The City Manager or designated representative shall periodically review and update the City's Emergency Preparedness Plan. The City shall review and update the Plan every four years or more often as needed. (SP-504, revised; SP-505, revised)

Action SN-5.2 Disaster Preparedness Meetings

The City shall hold coordination planning meetings with participating mutual aid agencies once every year to review disaster preparedness plans. The City shall participate with the County for such meetings. Periodically provide disaster preparedness information to residents. City staff and City Council shall participate in the California Specialized Training Institute's (CSTI)



training programs when funding is available. (SA-509, revised; SA-10, revised)

Action SN-5.3 Preparedness Training

Continue to provide basic training for all or appropriate City employees in disaster preparedness, first air, and cardiopulmonary resuscitation (CPR).

Action SN-5.4 Emergency Notification

Work with all relevant agencies to develop a program and procedures for emergency notification (e.g. reverse 911, social media, Nixle)

Goal SN-6 To minimize impacts associated with vehicle noise.

Policies

Region

Policy SN-6.1 Support State Legislation

Support State legislation for noise abatement design measures in all State highway projects within the Planning Area and support State legislation governing noise emissions from vehicles. (NA-429, revised; NA-437, revised)

City

Policy SN-6.2 Reduce Traffic Volumes

Where consistent with other goals and policies, improve the transportation facilities and reduce traffic volumes on streets to maintain or reduce ambient noise levels. (NP-424)

Policy SN-6.3 Promote Alternative Transport

The City shall continue to promote mass transit systems, car-pooling, bicycling, and walking within the City. (NA-425, revised)

Policy SN-6.4 Mitigate Highway Noise

The City shall work with the Caltrans to mitigate the effects of existing and future highway noise. (NP-427)



Policy SN-6.5 Reduce Commercial Vehicle Noise

The City shall attempt to reduce the noise levels generated by commercial vehicles along Mt. Hermon Road and Scotts Valley Drive, including using State and local legislation as necessary. (NP-431, revised; NP-435, revised)

Policy SN-6.6 Enforce Roadway Speed Limits

The City shall enforce existing speed limits, lowering them to reduce the noise levels where such benefits can be realized and remain consistent with other City goals and policies. (NA-436)

Policy SN-6.7 Enforce State Standards

The City shall continue to enforce noise emission standards imposed by the State of California vehicle code. (NA-438)

Policy SN-6.8 Roadway Improvement Plans

The City Public Works Department shall review all street and roadway improvement plans within the City limits to ensure incorporation of noise abatement measures. New street layout and redesigned street projects should be assessed for noise impacts, especially on neighboring noise sensitive land uses. (NA-439, revised; NA-440, revised)

Actions

Action SN-6.1 Truck-Trailer Delivery Transport

The City shall develop rules regulating all truck-trailer transport (including diesel) delivery times in all zone districts and to all construction sites during late evening, early morning, and night time hours or on Sunday and holidays. This will include regulating the use of air horns and jake-brakes on trucks within City limits to reduce noise generated by them. (NA-432, revised; NA-433, revised; NA-434, revised)



Goal SN-7 To provide an environment free from annoying and/or harmful noise. (NG-422)

Policies

City

Policy SN-7.1 Commercial and Industrial Noise Standards

Commercial and industrial noise level performance standards shall be retained in the zoning ordinance to restrict noise level increase and hour of operation. (NA-447)

Policy SN-7.2 Identify Noise Pollution Sources

The City shall identify and minimize or eliminate existing noise pollution sources. (NP-460)

Policy SN-7.3 Outdoor Recreation Areas

Outdoor recreation areas, especially in residential neighborhoods, should incorporate noise attenuation barriers, such as multiple rows of dense conifers, if the day-night noise levels exceed 60 dBA. (NA-461)

Neighborhood

Policy SN-7.4 Noise Sensitive Land Uses

Seek to avoid placing noise sensitive land uses (e.g. residential, hospitals, assisted living facilities, group homes, schools, day care centers, etc.) within the high noise impact areas (over 65 dB CNEL).

Project

Policy SN-7.5 New Development Noise Attenuation

New developments that are conditionally acceptable (refer to Table SN-2) or increase the day-night noise level by more than the levels shown in Table SN-2: Land Use Compatibility Standards for Community Noise Environments, shall be approved only when proper noise attenuation design measures have been incorporated to the City's satisfaction. (NP-442)



Policy SN-7.6 Incompatible Noise Levels

New developments that are considered noise sensitive shall not be located in proximity to existing noise generating uses where the existing noise level is considered incompatible with the proposed new sensitive use. (NA-444)

Policy SN-7.7 Minimize Ambient Noise Level Increases

Projects that create noise increases that exceed Table 3 or are Conditionally Acceptable (Table 2) should conduct a specific noise study to determine the appropriate mitigation necessary to bring a project into compliance. [Table 3 to be included and Table 2 revised]

Policy SN-7.8 Noise Attenuation Techniques

The City Planning and Building departments shall ensure noise attenuation techniques are constructed in new development projects. The City building inspector will ensure that all design specifications relevant to a project's acoustical design for noise level reduction are completed as approved prior to final approval of any project. (NP-455, revised; NP-456, revised)

Policy SN-7.9 Noise Mitigation

Through the environmental review process, identify and require noise level mitigation of potentially significant noise impacts. Deny new developments which cannot mitigate significant adverse noise level impacts on neighboring land uses as defined by the significance criteria in Table 3. (NA-448, revised)

Policy SN-7.10 Commercial and Industrial Noise Increases

The City shall strive to meet the local noise levels by careful permit review for noise increases in the case of new commercial or industrial development.

(NA-449)

Policy SN-7.11 Acoustical Engineering Analysis

The City may require an acoustical engineering analysis to show that new commercial or industrial planned use will not increase the local ambient noise levels by more than the values set forth in the noise element of the General Plan. (NA-450)



Policy SN-7.12 Noise Level Exceeding 60 dBA

In areas where the annual day-night noise level exceeds 60 dBA, the City shall require an acoustical engineering study for proposed new construction or renovation of structure(s). Each acoustical analysis should recommend methods to reduce the interior day-night annual average noise levels to below 45 dBA for private dwellings, motels, hotels, office, and noise sensitive uses. (NA-452)

Policy SN-7.13 Mitigation for Noise Sensitive Land Uses

Seek to protect schools, hospitals, libraries, churches, convalescent homes, and other noise sensitive uses from excessive noise levels by incorporating site planning and project design techniques to minimize noise impacts. The use of noise barriers should be considered after all practical design-related noise measures have been integrated into the project. In cases where sound walls are necessary, they should help create an attractive setting with features such as setbacks, changes in alignment, detail and texture, murals, pedestrian access (if appropriate), and landscaping.

Policy SN-7.14 Exterior Noise Measurements

Exterior noise levels measured at the property line of proposed new residential developments shall be limited at or below an average annual daynight level of 60 dBA. (NA-454)

Policy SN-7.15 Noise Levels Exceeding 75 dBA

New residential development should not be allowed in regions where the annual day-night noise levels exceeds 75 dBA. (NA-457)

Policy SN-7.16 Hotel, Motel, Office Rooms

Hotel, motel, and professional office construction or renovation plans must include design techniques to ensure that noise is attenuated to 45 decibels or better between adjacent private rooms. (NA-458)

Actions

Action SN-7.1 Noise Ordinance

The City shall adopt a comprehensive noise ordinance which implements the noise policies of this General Plan. The noise ordinance will contain land use compatibility noise standards and will prescribe methods for meeting those standards. (NA-443)



Action SN-7.2 Sportsman's Club Noise

The City shall require the Sportsman's Club to reduce its ambient noise levels to legal limits at the property line of the gun range or abandon the firing range at Lodato Park at the end of its lease. (NA-462)