Chapter 5 COMMUNITY SAFETY

The urban and natural environments of Agoura Hills contain a number of hazards that require special consideration and treatment in the land use planning process to protect the public's safety. These hazards include flooding, unstable earth conditions, wildland and urban fires, crime, and hazardous materials. Protection from the risks of natural and man-made hazards, crime, and disease are essential in establishing a sense of well-being for residents and important considerations in attracting new businesses to the City that will provide quality jobs. Goals and policies in this chapter strive to reduce hazards, including the effects of climate change, mitigate noise impacts, provide for emergency response strategies, and coordinate emergency response agencies.

The Las Virgenes-Malibu Council of Government's (COG) Multi-Jurisdictional Hazard Mitigation Plan (2018) was prepared by the Las Virgenes-Malibu COG to meet the Disaster Mitigation Act of 2000. The 2018 version updated the original 2005 Multi-Jurisdiction Hazard Mitigation Plan. The City of Agoura Hills is one of five cities in the COG, along with the cities of Malibu, Westlake Village, Calabasas and Hidden Hills. The mission of the Multi-Jurisdictional Hazard Mitigation Plan is to promote sound public policy and programs in the City of Agoura Hills and other COG member cities to protect the public, critical facilities, infrastructure, private and public properties, and the environment from natural and human generated hazards. The Hazard Mitigation Plan contains risk assessments and hazard mitigation goals and strategies. It addresses areas of earthquake, wildfire, climate change, energy disruption, landslide and debris flows, windstorm, and flood/severe winter storm, among other topics. The Las Virgenes-Malibu Council of Government's Multi-Jurisdictional Hazard Mitigation Plan is incorporated herein by reference. The hazard and risk reduction strategies contained in the Hazard Mitigation Plan are complementary to the goals and policies of the General Plan.

A. Flood Hazards (S)

The Las Virgenes-Malibu area, including the City of Agoura Hills, is situated near the western portion of the Santa Monica Mountains and has experienced flooding in the past from major winter storm events, although there has been no significant historic flooding. Flooding poses a threat to life and safety and can cause severe damage to public and private property. Due to the natural mountainous terrain as well as changes in the landscape (due to development) and natural disasters such as wildfire, flooding can be a factor in the area.

Flood control and storm water facilities

In Agoura Hills, potential flood hazards may result from overflow of natural watercourses and man-made drainage systems due to excessive and unusual storm runoff. Agoura Hills does not have a significant flooding problem, as the City's flood control facilities and storm drainage system generally have sufficient capacity to adequately protect developed areas from excessive storm runoff. However, heavy rains can result in flooding on City roadways, such as along Thousand Oaks Boulevard near Lake Lindero Drive. Figure S-1 (Hazards) displays Federal Emergency Management Agency (FEMA)-recognized zones subject to flooding and other hazards within the community. ~~The following goal and policies provide the City with guidance in reducing present and future flood hazards.~~

The Los Angeles County Department of Public Works (LACDPW) presently owns and maintains three major flood control facilities in Agoura Hills. These facilities are the Lindero Canyon Channel, the Chesebro Canyon Channel, and parts of Medea Creek. Two major drainage channels not maintained by the LACDPW are the Palo Comado Canyon and Liberty Canyon. With the exception of the Palo Comado Canyon, these drainages are unchannelized or are maintained as semi-natural and are located in open space corridors.

- The Lindero Canyon Channel provides flood protection for the west drainage flow from Lindero Canyon. This canyon extends into Ventura County, well beyond the City of Agoura Hills northerly boundary.
- The Chesebro Canyon Channel provides controlled drainage for the east drainage area of the City. Chesebro Canyon Channel intercepts the flows from Chesebro Canyon, and Palo Comado Canyon. Both canyons extend into Ventura County, beyond the City of Agoura Hills northern boundary line.
- Medea Creek is partially improved between Agoura Road and north to the Ventura County line. Medea Creek provides flood control protection for the central drainage area of the City. Medea Creek intercepts flow from Medea Creek Canyon, extending into Ventura County.

The following goals and policies provide the City with guidance in reducing present and future flood hazards.

Goal S-1

Protection from Flood Hazards. Minimize risk to residents, workers, and visitors ~~that are protected~~ from flood hazards.

Policies

S-1.1 **Coordination of Drainage Improvements.** Locate and improve deficiencies in the storm drain system to prevent local flooding problems in the City. *(Imp U-21)*

S-1.2 **New Development.** Require new development to upgrade storm drains to handle the increased runoff generated from the development sites, in accordance with adopted City standards, which include but are not limited to Los Angeles County Public Works Design Manuals. *(Imp U-20, U-22)*

S-1.3 **Facility Use or Storage of Hazardous Materials.** Require that all facilities storing, using, or otherwise involved with substantial quantities of on-site hazardous materials within flood zones comply with applicable standards of elevation, anchoring, and flood proofing, and that hazardous materials be stored in watertight containers. *(Imp S-1)*

S-1.4 **SEMS Plan.** Ensure that the City's Standardized Emergency Management System (SEMS) Plan is evaluated annually and revised as required, that the current mitigation strategies addressing flood hazards are implemented, and that effective public outreach and education are included. *(Imp S-2)*

S-1.5 **Preservation of Flood Plains.** Preservation of flood plains as open space shall be considered, as feasible, as an alternative to channelization. *(Imp S-3)*

S-1.6 **Floodplain Requirements.** Regulate development within floodplains in accordance with the County, state and federal requirements, and maintain the City's eligibility under the National Flood Insurance Program. *(Imp S-1)*

S-1.7 **Flood Mitigation Design.** Require that new development incorporates sufficient measures to mitigate flood hazards, including the design of on-site drainage systems linking with citywide storm drainage, grading of the site so that runoff does not impact adjacent properties or structures on the site, and elevation of any structures above any flooding elevation. *(Imp U-19, U-20, U-21, U-22, S-1)*

S-1.8 **Natural Infrastructure.** Incorporate and/or restore naturally occurring landscape features and ecosystem processes in development projects to mitigate flood danger, purify and store water, and reduce urban storm water runoff to the extent feasible. Consider such natural infrastructure as riparian buffers, wetlands, urban forestry, and permeable pavers. (*Imp S-14)*

S-1.9 **Development in Flood Zones.** Limit new development in Flood Zones A and AE, in accordance with the Federal Emergency Management

Agency (FEMA) and City Building Code requirements, and assess properties for flooding vulnerabilities in these zones. (*Imp S-1, S-15)*

S-1.10 **Public Outreach and Education.** Provide public outreach, education and engagement by communicating flood warning and severe weather event information and appropriate responses to the public, such as areas to avoid. (*Imp, S-16, S-23)*

S-1.11 **Flooding Emergency Evacuation Plan.** Develop an emergency evacuation plan for flooding and develop an emergency evacuation notification system. (*Imp S-16, S-20)*

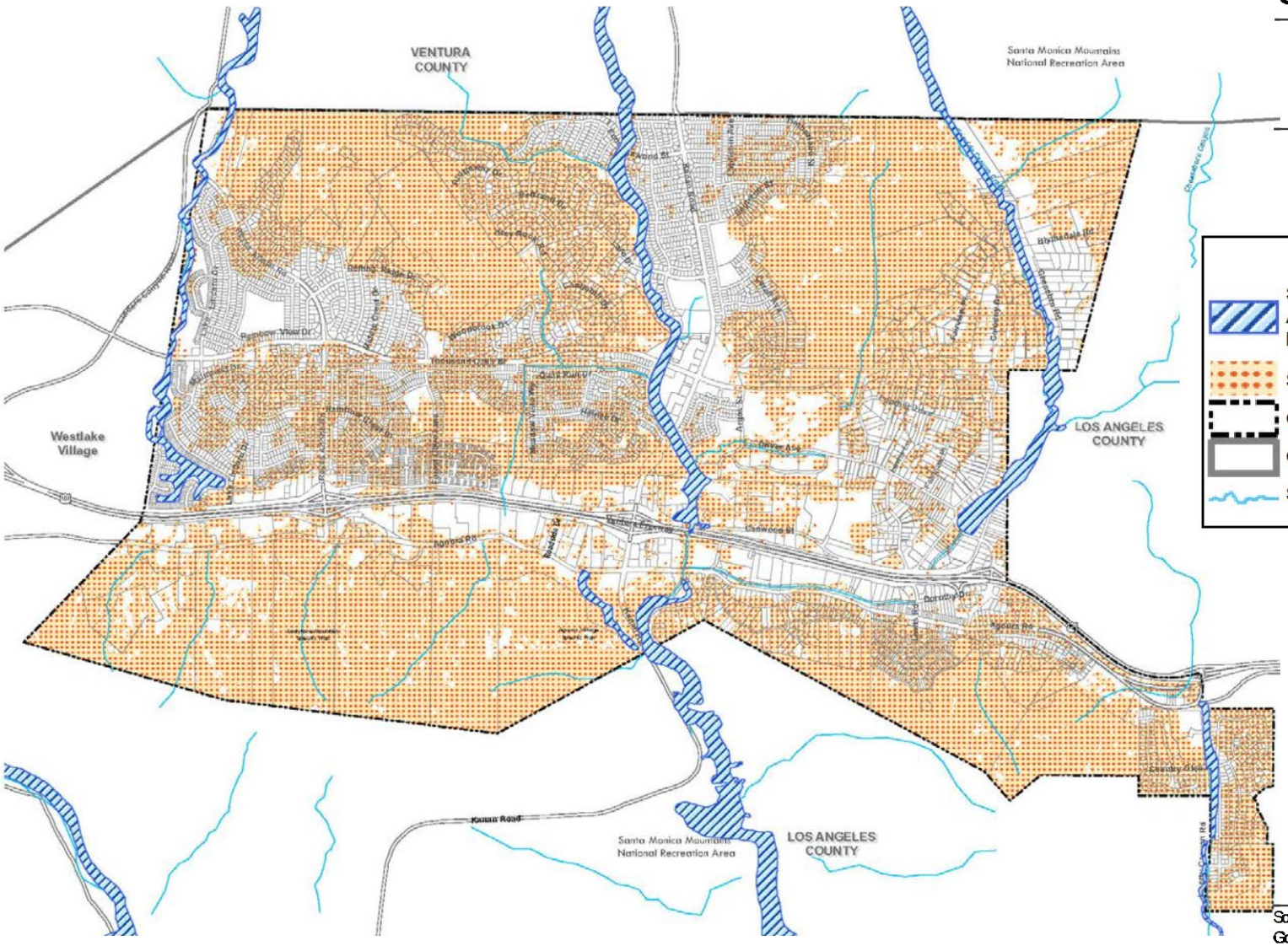
S-1.12 **Roadway and Transportation Facilities.** Identify roadway and transportation facility improvements needed within the City to address flooding, and coordinate with relevant transportation agencies to implement the improvements. (*Imp S-15, S-18)*

S-1.13 **Siting of Critical Facilities and Infrastructure**. Encourage the location and development of new essential public facilities outside of flood hazard zones to the extent feasible. *(Imp S-17)*

S-1.14 **Coordination with Flood Protection Agencies.** Maintain a cooperative working relationship with the County of Los Angeles Flood Control District and other public agencies to ensure the structural and operational integrity of essential public facilities during flooding. *(Imp S-18)*

CITY of AGOURA HILLS
General Plan Update

Flood Hazards and Steep Slopes



Source: Las Virgenes-Malibu Council of Government's (COG) Multi-Jurisdictional Hazard Mitigation Plan (2018).

Figure S-1

Intentionally Blank.

B. Geological and Seismic Hazards (S)

Slope Stability Hazards

Slope stability is a major environmental concern in the developed hillside areas of the City. Several areas are prone to such stability problems as landslides, mudslides, slumping, and rockfalls. Development occurring within close proximity to these geologic conditions may endanger the public's safety. Landslides have occurred in the mountainous portions of Agoura Hills. (Figure S-1).

Shallow slope failures, such as mudslides and slumping, have occurred in the City, especially where graded cut and fill slopes have been poorly constructed or not properly maintained. Mudslides have the potential to occur with great suddenness and destructive force, thereby constituting a significant threat to life and property in hillside areas. Soil slumping is a slower process that can also potentially cause extensive structural damage, although it is not as life threatening as the other soil stability hazards. Rockfalls are generally associated with seismic groundshaking and are a potential hazard for developments located at the base of steep slopes that have fractured rock outcroppings. Rockfall hazard is greatest during strong earthquakes.

Expansive Soil Hazard

Soils that expand when exposed to water are considered expansive soils. Another important concern is the shrink/swell behavior and erodibility of soils in the City. Ungraded native soils in the lowland portions of the City exhibit the highest potential for shrinkage and swelling, and would have to be removed or extensively modified before development could occur.

Soil Erosion Hazard

Soil erosion typically results from concentrated runoff on unprotected slopes or along unlined stream channels. Soil erosion has largely been reduced throughout most of the City due to soil coverage by various land uses and the construction of flood control facilities. However, the undeveloped hillside and mountainous areas of the City could experience substantial erosion from runoff if the vegetation cover is destroyed by brushfire or removed by grading operations.

Seismic Hazards

Agoura Hills', significant seismic hazard is caused by potential groundshaking on the Simi–Santa Rosa Fault, Oak Ridge Fault, and San Cayetano Fault. The Simi–

Santa Rosa Fault is approximately 7 miles from Agoura Hills and the Oak Ridge Fault and San Cayetano Fault are located 17 miles and 18 miles from the City respectively.

The Alquist-Priolo Special Studies Zone Act requires the State Geologist to delineate "special studies zones" along known active faults in California. Cities and counties affected by the zones must regulate certain development "projects" within the zones. No Alquist-Priolo Special Studies Zones have been identified within the City of Agoura Hills.

Landslides

Although landslides can result from improper grading practices, no major structural damage apparently has occurred in the City as a result of deep-seated-bedrock instability triggered by grading practices. Superficial slides, however, have occurred locally on graded cut-and-fill slopes in a few tract developments. One such problem area has been in Liberty Canyon, south of the Ventura Freeway. The majority of shallow-slope failures occur on the moderate-to-steep, soil-covered natural slopes. Figure S-2 (Landslide Areas) displays areas subject to landslides within the community.

Subsidence

The phenomenon of widespread land sinking, or subsidence, is generally related to the over pumping of groundwater or petroleum reserves from deep underground reservoirs. Subsidence is not related to any surface activity. No recognized subsidence has been identified in the City.

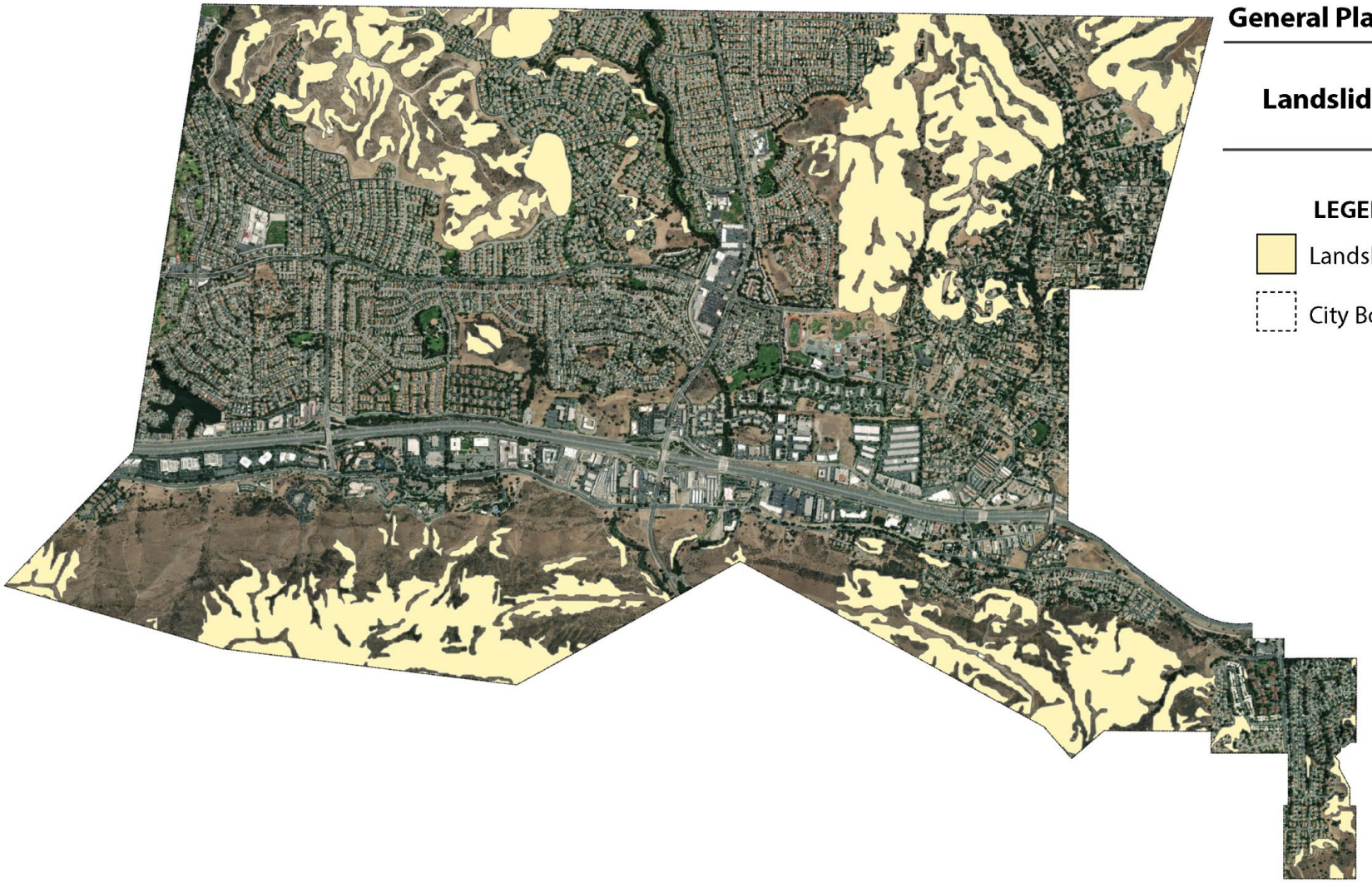
Because of the generally limited groundwater resources contained in the relatively shallow alluvial basin, and because of the low probability of significant future oil production, the likelihood of significant subsidence occurring in the City is considered very minimal.

Local Seepage Problems

Surfacing groundwater causing boggy ground, or heavy rains giving rise to ephemeral springs, may occur locally because of the natural or artificial barriers to subsurface water flow. Such areas are generally known from historic records. New grading activities, however, may encounter other springs or seepage areas. In most instances, surfacing water is a nuisance problem rather than a hazard to building sites or slope stability. Nevertheless, the need for mitigation measures during development should be anticipated in potentially affected areas.

CITY of AGOURA HILLS
General Plan Update

Landslide Areas



LEGEND

- Landslide Zones
- City Boundary

Source: California Department of Conservation and Geological Survey (CGS) GIS Information Warehouse.

Figure S-2

Soil Percolation

The soil and bedrock formations throughout the entire area have generally very poor (slow) percolation rates because of their generally fine-grained or indurated (cemented) nature. The most significant development constraint or hazard resulting from poor soil percolation would be limitations on the feasibility of on-site sewage disposal systems, and the potential for creating slope stability problems.

Liquefaction

Buildings above liquefiable soils may settle or tip due to a loss of bearing capacity of the soil. Liquefaction occurs when soil drains in loose, saturated silty, sandy, or gravel soils attempt to rearrange themselves in a denser configuration when subjected to strong earthquake ground motions. The resulting increase in pressure of the water in the voids of the soil temporarily transforms the soil into a fluid, causing the soil to lose much of its strength. As the pore-water pressure builds, ground water and liquefied soil may find their way to the surface, creating sand boils on the ground surface. Several types of damaging ground failures can occur due to liquefaction including lateral spreading, ground settlement and sink holes.

Lateral spreading occurs when the subsurface soil liquefies. Gravity and inertial forces from the earthquake cause the mass to move downslope. Lateral spreading can occur on very shallow slopes (nearly flat ground) and they can cause ground displacements ranging from inches to tens of feet. This type of movement can damage utilities and structures supported by shallow or deep foundations. Portions of Agoura Hills are in liquefaction zones. See Figure S-3 (Liquefaction Zones) that presents areas in the community susceptible to liquefaction.

The following goal and policies provide the City with guidance in reducing and/or avoiding geological and seismic hazards by requiring enforcement of safety standards, state-of-the-art site design and construction methods, and mitigation to minimize the impacts of new development.

Goal S-2

Protection from Geologic Hazards. Minimized adverse effects to residents, public and private property, and essential services caused by seismic and geologic hazards.

Policies

S-2.1 **Review Safety Standards.** Regularly review and enforce all seismic and geologic safety standards, including the City's Building Code, and

require the use of best management practices (BMPs) in site design and building construction methods. *(Imp S-4)*

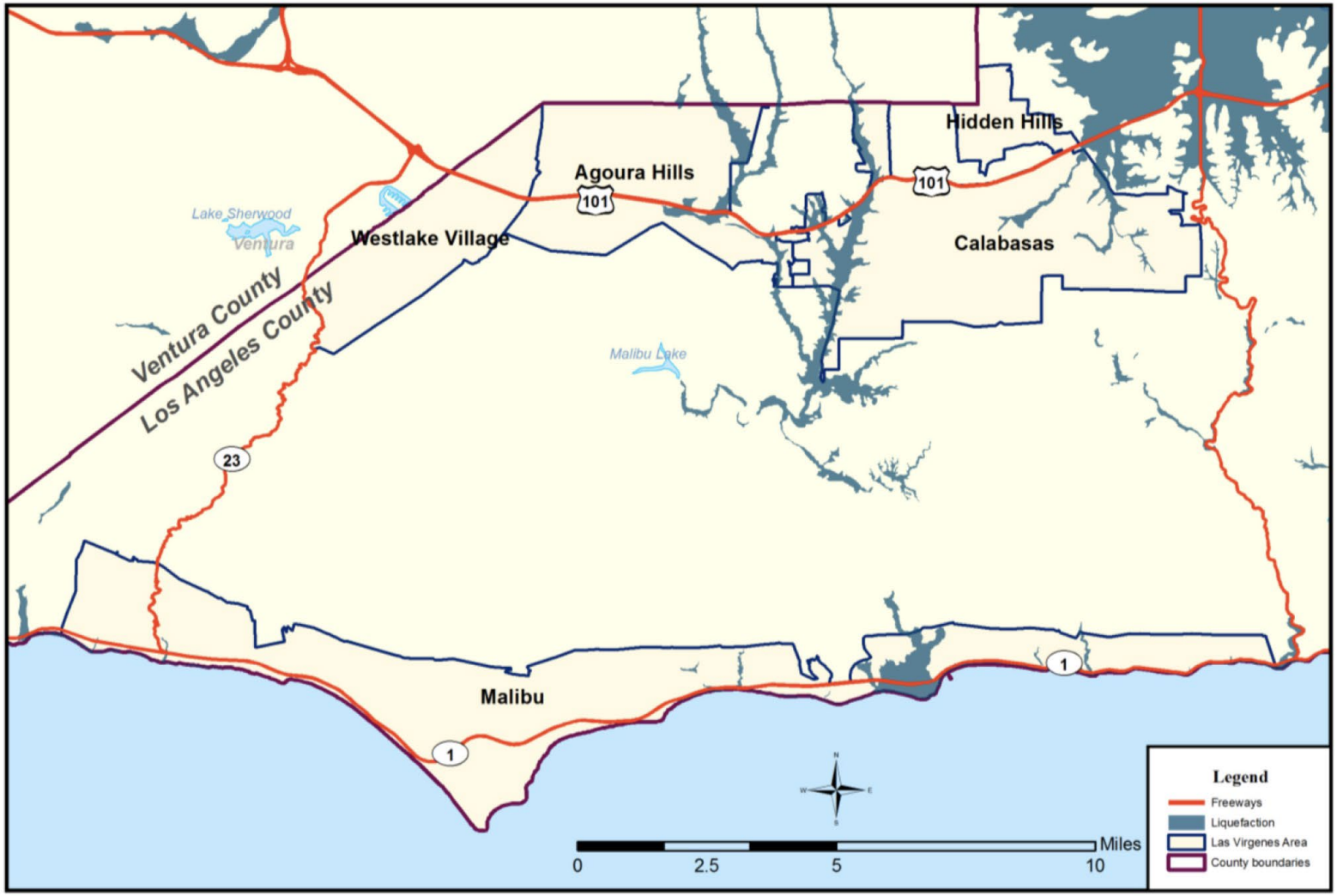
S-2.2 **Geotechnical Investigations.** Require geotechnical investigations to determine the potential for ground rupture, groundshaking, landslides, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites, including steep slopes, except where the Building Official determines such hazards are not present. *(Imp S-4)*

S-2.3 **Retrofit Critical Facilities.** Encourage the upgrade, retrofitting, and/or relocation of all existing critical facilities (e.g., schools, police stations, fire stations, and medical facilities) and other important public facilities that do not meet current building code standards and are within areas susceptible to seismic or geologic hazards. *(Imp S-5)*

S-2.4 **Funding Programs.** Pursue federal and state programs to provide additional protection against seismic activity. *(Imp S-6)*

CITY of AGOURA HILLS
General Plan Update

Liquefaction Zones



Source: Las Virgenes-Malibu Council of Governments 2018 Multi-Jurisdictional Hazard Mitigation Plan.

Figure S-3

C. Wildland and Urban Fire Hazards (S)

The hillside areas in Agoura Hills are susceptible to wildfires

The City of Agoura Hills is susceptible to both urban and wildland fire hazards. For thousands of years, wildland fires have been a natural part of the ecosystem in Southern California. However, wildfires present a substantial hazard to life and property in Agoura Hills and other nearby communities in the Las Virgenes-Malibu region where hillsides and mountainous areas interface with urban areas. Natural vegetation that covers the undeveloped hillsides that surround the community contributes to scenic beauty but may also provide fuel to support a large wildfire. Wildfire hazards can be magnified by various factors, including fuel load, weather conditions, topography, and property characteristics.

Fire Hazard Zones

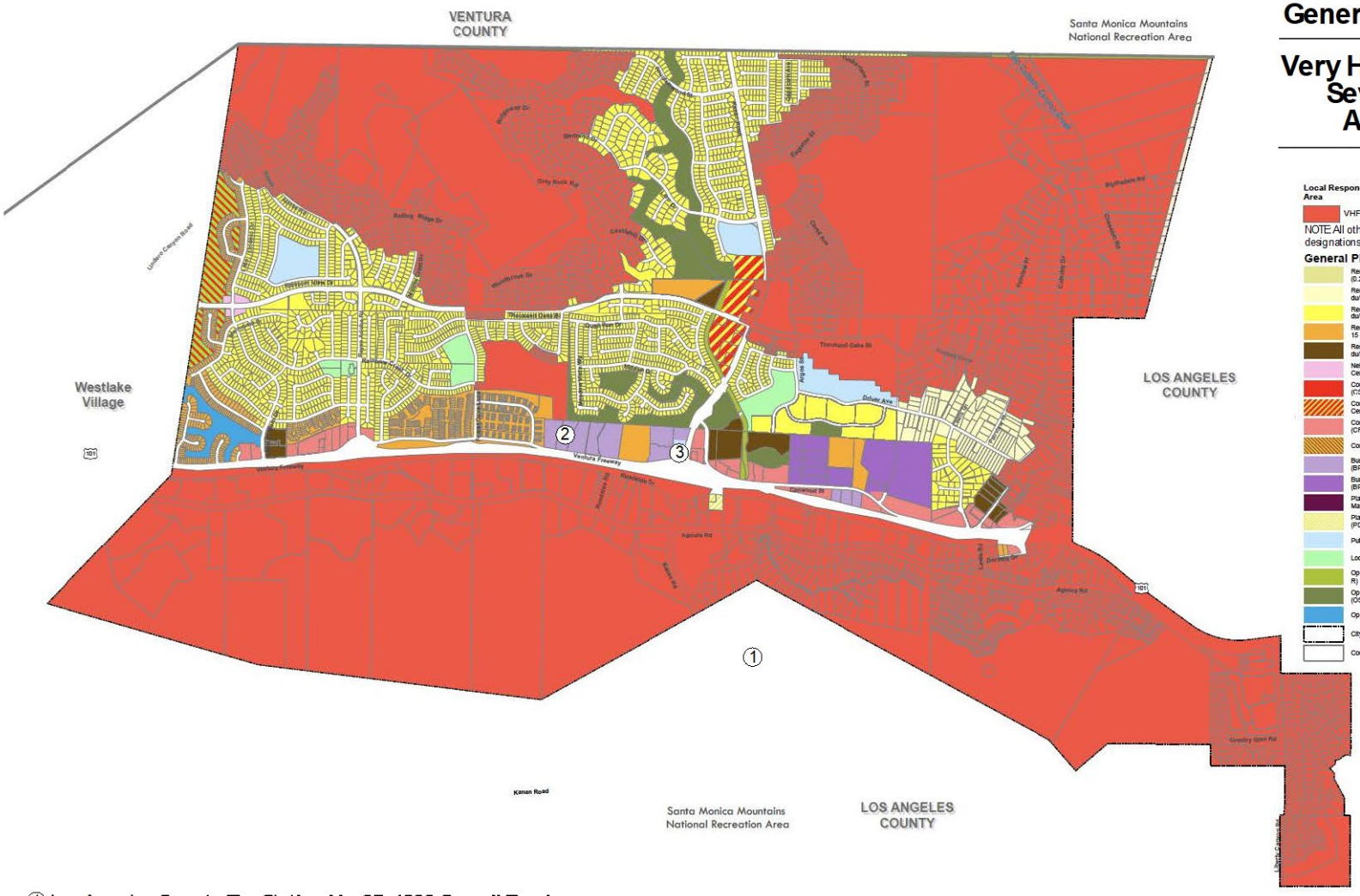
The State of California maps Fire Hazard Severity Zones (FHSZ) throughout the state. A FHSZ is a mapped area that designates zones (based on factors such as fuel, slope, and fire weather) with varying degrees of fire hazard (i.e., moderate, high, and very high). The FHSZ maps evaluate wildfire hazards, which are physical conditions that create a likelihood that an area will burn over a 30- to 50-year period. The Zones also include FHSZ for State Responsibility Area lands and separate Very High Fire Hazard Severity Zones for Local Responsibility Area lands. Moderate, high, and very high FHSZs are found in areas where the state has financial responsibility for fire protection and prevention (SRA). Only very high FHSZs are found in Local Responsibility Areas (LRAs).

Figure S-4 (Very High Fire Hazard Severity Zones) presents areas in the community that are located within the Very High Fire Hazard Severity Zone (VHFSHZ). The majority of the City is located in the VHFHSZ. The entire portion of the City south of U.S. Highway 101 is in the VHFHSZ. Some of the lands in the zone are in designated open space preserved areas, where development is not allowed. Other lands in the zone are either currently developed or are vacant and zoned for development, including commercial, light industrial and residential uses. Figure LU-2 (Land Use Diagram) in Chapter 2, Community Conservation and Development, shows the planned land use designations of land throughout the City, which can be compared to Figure S-4.

The City is in a Local Responsibility Area, where the County of Los Angeles Fire Department provides fire prevention and protection services.

CITY of AGOURA HILLS
General Plan Update

Very High Fire Hazard Severity Zones Agoura Hills



① Los Angeles County Fire Station No. 65: 4206 Cornell Road
② Los Angeles County Fire Station No. 89: 29757 Canwood Street
③ Southern California Edison

Source: CAL FIRE Recommended Maps for Very High Fire Hazard Severity Zones.

Figure S-4

Historical Record of Significant Fires

The Las Virgenes-Malibu COG Region has a long history of wildland fires. In fact, over the past 110 years, nearly the entire Las Virgenes-Malibu Region has been impacted by fire. Major fires since 2003 in the Las Virgenes-Malibu Region are provided in Table S-1 (History of Fire Events in the Las Virgenes-Malibu Region). While not all fires in the local Santa Monica Mountains are listed, other fires have occurred nearby but outside the COG area, including the Palisades Fire of 2021 in Topanga Canyon and Pacific Palisades.

Table S-1 History of Fire Events in the Las Virgenes Malibu Region

Fire Name	Year	Estimated Acreage	Structure Loss
Woolsey Fire	2018	96,949	1,643
Lost Fire	2008	167	00
Corral Fire)	2007	4,901	53
Malibu Canyon Fire	2007	4,565	22
Sherwood Fire	2006	168	0
Topanga Fire	2005	24,175	323
Pacific Fire	2003	806	0

Source: 2017 Multi-Jurisdictional Hazard Mitigation Plan, Las Virgenes-Malibu Council of Governments, Table 130.

Urban fires are also a risk for the community; these can result from a number of causes, including arson, carelessness, home or industrial accidents, or from ignorance of proper safety procedures. Fire protection services in the City are provided by the Los Angeles County Fire Department.

Emergency Evacuation

The Los Angeles County General Plan identifies Kanan Road as a designated Highway Disaster Route and U.S. 101 Freeway as a Freeway Disaster Route. Disaster Routes are not Evacuation Routes. An emergency may warrant a road to be used as both a disaster route (e.g., access for emergency response vehicles) and an evacuation route.

The Draft Safety Element of the County General Plan Update indicates that Kanan Road is a "possible evacuation route" (Draft Evacuation Routes Figure 12.9, Los Angeles County Department of Regional Planning, August 2021). The map note states, "This map shows possible evacuation routes: public, paved through roads. However, a viable evacuation route is situational, context-specific, and subject to change. During an emergency, emergency responders will determine which of these routes to use."

In 2019, two separate bills (AB 747 and SB 99) were signed into law that added new requirements for disclosing residential development without at least two

points of ingress and egress and addressing the presence and adequacy of evacuation routes in the General Plan Safety Element. SB 99 (2019) amended Government Code § 65302(g) to require that, upon the next revision of the housing element on or after January 1, 2020, the Safety Element must be updated to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes (i.e., points of ingress and egress). Figure S-5 (Streets Lacking Two Emergency Evacuation Routes) depicts those areas in the City that do not have at least two emergency evacuation routes. In these instances, there is only one route from which to evacuate, due to the street system and natural barriers, including topography. Most of the streets are in the Old Agoura area in the northeast portion of the City. Though lacking adequate two-way evacuation routes, the City has prepared an emergency traffic control plan for the Old Agoura neighborhood. Three streets lacking adequate two emergency evacuation routes are in the Indian Hills area of the City, situated south of the U.S. 101 Freeway. All the streets in this area of the City would use Agoura Road for emergency evacuation. There is one street in the Liberty Canyon area of the City that lacks adequate two emergency evacuation routes and all streets in this area would evacuate to Agoura Road and the U.S. 101 Freeway.

The City is currently preparing an evacuation plan for the entire City. The County of Los Angeles is also currently preparing an evacuation plan for areas within its jurisdictional boundaries.

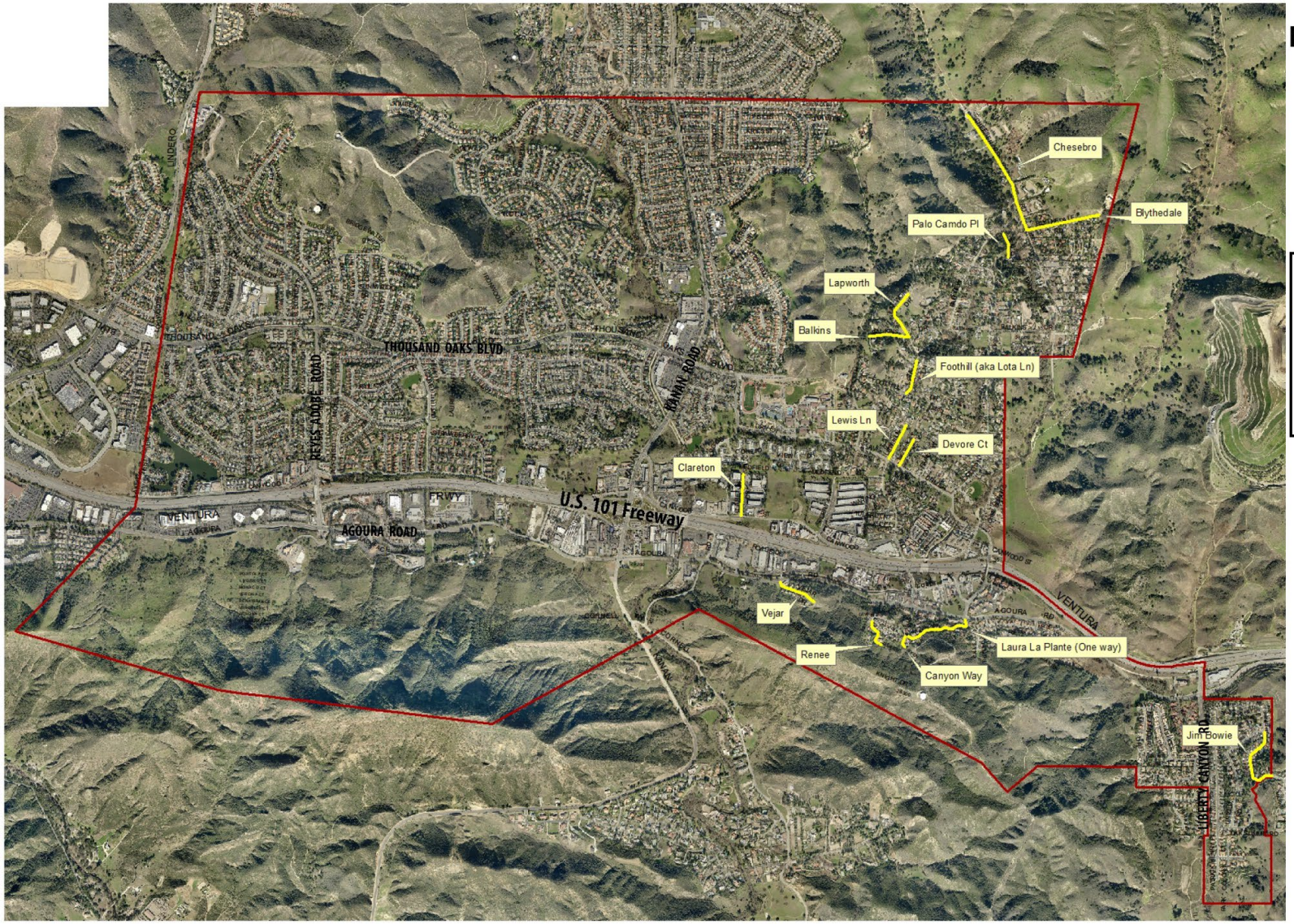
Fuel Modification

Fuel Modification consists of vegetation treatments near structures to create defensible space for effective fire protection. The County of Los Angeles Fire Department, Fuel Modification Unit, is responsible for approving landscape plans as part of new development in the City of Agoura Hills to ensure fuel modification measures are met. The Fuel Modification Unit staff reviews the structure location and type of construction, topography, slope, vegetation type and overall site setting.

The County of Los Angeles Fire Department, Brush Clearance Unit, along with the County Department of Agricultural Commissioner/Weights and Measures, Weed Hazard and Pest Abatement Bureau requires the annual clearance of brush by owners of improved and unimproved properties in proximity to structures. The Brush Clearance Unit enforces the Fire Codes as they relate to brush clearance on parcels and coordinates inspection and compliance efforts.

CITY of AGOURA HILLS
General Plan Update

Streets Lacking Two Emergency Evacuation Routes



LEGEND

- Streets Lacking Two Emergency Evacuation
- City of Agoura Hills

Source: City of Agoura Hills, 2021.

Figure S-5

The following goals and policies address the risks of fire hazards in the community. Related goals and policies addressing fire and emergency services and water supplies and conservation that serve the City are included in Chapter 3 (Infrastructure and Community Services).

Goal S-3

Protection from Fire Hazards. Minimize risks to persons and property in Agoura Hills ~~protected~~ from urban and wildland fires.

Policies

S-3.1 **Coordination with the Los Angeles County Fire Department.** Cooperate with the Los Angeles County Fire Department in evaluating re-development after significant fires and in periodically evaluating services and service criteria to ensure that the City continues to receive adequate fire protection and prevention services, and in preparation of the County evacuation plan. *(Imp CS-26)*

S-3.2 **Wildfire Mitigation.** Coordinate with the Los Angeles County Fire Department on appropriate wildland fire mitigation. *(Imp CS-26)*

S-3.3 **New Development**. Continue to ensure that all new development meets ~~incorporates~~ current state, county, and City fire safe building code requirements, as appropriate, such as the California Fire Code and California Building Code, including development in the Very High Fire Hazard Severity Zone. *(Imp CS-26, CS-30)*

S-3.4 **Fire Protection Systems.** Require all new commercial and multiple-unit residential developments to install fire protection systems, as required by the state and City buildings and fire codes, and encourage the use of automatic sprinkler systems in existing structures. *(Imp CS-30)*

S-3.5 **Funding.** Ensure that new developments pay a pro-rata share for increased fire protection as necessitated by that particular development. *(Imp S-7, CS-26)*

S-3.6 **Fire Inspection.** Work with the County Fire Department to ensure an ongoing fire inspection program to reduce fire hazards associated with critical facilities, public assembly facilities, industrial buildings, and nonresidential buildings. *(Imp CS-26)*

S-3.7 **SEMS Plan.** Incorporate and periodically review fire prevention and protection procedures in the City's Standardized Emergency Management Systems (SEMS) Plan. *(Imp S-2)*

S-3.8 **Fire Department Review.** Continue review by the Los Angeles County Fire Department of proposed structures and developments within the community, as applicable, to assure adequacy of structural fire protection, access for fire fighting, water supply, and vegetation management. *(Imp CS-26, CS-30, S-8)*

S-3.9 **Disaster Communication**. Improve disaster coordination and communication with other public agencies. *(Imp S-19, CS-26, CS-27)*

S-3.10 **Emergency Evacuation**. Plan for emergency evacuation, including identifying standards for evacuation, and maintain adequate departure paths especially in areas that do not have at least two emergency evacuation routes (i.e., points of ingress and egress). *(Imp S-20)*

S-3.11 **Emergency Access**. Ensure new development has adequate emergency access through sufficient road widths according to the Los Angeles County Fire Department standards, which are currently 26 feet wide for single-story structures and 28 feet wide for multi-story structures, as well as adequate, visible street address signage to identify buildings. *(Imp CS-30)*

S-3.12 **Fuel Load.** Work to minimize fuel loads, or the amount of material that can be burned, within the wildland/urban interface within the City to the extent feasible, in coordination with the County Fire Department and other relevant agencies. *(Imp S-22)*

S-3.13 **Public Education.** Limit risk of wildfire through public education and planning, including working with community groups, including at risk populations, and other agencies to present information and training about evacuation, wildfire prevention and awareness, and defensible space. *(Imp S-23)*

S-3.14 **Siting of Critical Facilities and Infrastructure**. Encourage the location and development of new essential public services, such as health care facilities, emergency shelters, fire stations, and infrastructure outside of the Very High Fire Hazard Severity Zone, to the extent feasible. *(Imp S-17)*

S-3.15 **Local Hazard Mitigation Plan**. Implement measures of the Las Virgenes-Malibu Council of Governments Multi-Jurisdictional Hazard Mitigation Plan relevant to the City, and work to ensure the Hazard Mitigation Plan is periodically updated. *(Imp S-21)*

S-3.16 **Building Code**. Continue to update the City's Building Code as necessary by incorporating structural hardening measures, such as fire rated roofing and fire resistant construction materials, and other measures to protect structures in a fire. *(Imp S-24)*

S-3.17 **Communication Systems**. Continue to evaluate and update communications systems in the City to provide early warning and notification about wildfire threats. *(Imp S-16)*

S-3.18 **Maintain Availability of Fire Hazard Maps.** Maintain collection of maps relating to fire hazards to help educate and assist builders and homeowners in mitigating against wildfire. *Imp S-21, S-25)*

S-3.19 **Home Hardening**. Promote the use of home hardening techniques that increase a structure's resistance to heat, flames, and embers through education and training. *(Imp S-23)*

S-3.20 **Water Supply and Fire Flow**. Work cooperatively with the Las Virgenes Municipal Water District and the Los Angeles County Fire Department, as appropriate, to ensure adequate water supply and facilities, including fire flow, for fire-fighting to serve all areas and populations of the City. *(Imp U-5, CS-26)*

S-3.21 **Site Specific Fire Protection**. Require applicants for new and re - development projects in the Very High Fire Hazard Severity Zone (VHFHSZ) to prepare a project-specific fire protection plan as part of initial application submittal. The fire protection plan shall at a minimum identify site ingress/egress, evacuation routes, emergency vehicle access, visible home addressing and signage, and fuel modification zones. *(Imp S-26)*

S-3.22 **Existing Non-Conforming Development.** Work with owners of developed property that does not meet current fire safety standards for access, water supply and fire flow, signage and vegetation clearance in the VHFHSZ, and provide guidance on how to meet the standards. *(Imp S-30, S-23, CS-26)*

Goal S-3.a

Limiting Fire Hazards. Limiting fire hazard through brush and weed abatement, and encouraging landscape planting appropriate to fire prone areas.

Policies

S-3.a.1 **Fuel Modification.** Ensure that roads and new development comply with the vegetation clearance and fuel modification requirements of the Los Angeles County Fire Department while protecting natural resources and habitat to the extent feasible, and encourage design that minimizes the need for fuel modification on public parklands. *(Imp S-8, CS-30)*

S-3.a.2 **Vegetation Management.** Coordinate with the County of Los Angeles Fire Department in implementing the County's Vegetation Management Program, which develops strategies responding to fire hazards by analyzing wilderness fire history, considering different methods of reducing and removing fuels, and evaluating the environmental effects of such practices. *(Imp S-21, CS-26).*

S-3.a.3 **Fire Appropriate Planting**. Provide information to the public on plant and tree species, including native species, that are fire adapted or fire resistant. *(Imp S-23)*

D. Crime Prevention and Protection (S)

Part of the quality of life sought in Agoura Hills is a feeling of security and safety from criminal activity. To keep the City a safe place, it is essential that the Los Angeles County Sheriff's Department maintain adequate law enforcement operations in Agoura Hills. The following goal and policies serve to enhance public safety in the City through maintenance of adequate law enforcement services.

Goal S-4

Protection from Crime. Persons and property in Agoura Hills protected from criminal activities.

Policies

S-4.1 **Support Los Angeles County Sheriff's Department.** Support the Los Angeles County Sheriff's Department in periodically evaluating services and service criteria to ensure that the City continues to receive adequate law enforcement services. *(Imp CS-26)*

S-4.2 **Agency Cooperation.** Continue to cooperate with the California Highway Patrol and other nearby law enforcement agencies, such as the Ventura County Sheriff's Department, to provide backup police assistance in emergency situations. *(Imp CS-26)*

S-4.3 **Public Education.** Encourage citizen participation in public safety programs, such as Neighborhood Watch, and facilitate educational programs dealing with personal safety awareness. *(Imp CS-30, CS-31)*

S-4.4 **Crime Prevention through Environmental Design (CPTED).** Use defensible space concepts (site and building lighting, visual observation of open spaces, secured areas, etc.) in the design of all new development. *(Imp CS-32)*

S-4.5 **Development Review.** Provide for law enforcement review of applicable projects as part of the review process. *(Imp S-9)*

S-4.6 **Evacuation Planning.** Coordinate evacuation planning among the Los Angeles County Fire and Sheriff's departments, the California Highway Patrol, the City of Agoura Hills Community Emergency Response Team (CERT), and law enforcement agencies in other local jurisdictions. *(Imp S-2)*

Police services in the City are provided by the Los Angeles County Sheriff's Department

Intentionally Blank.

E. Hazardous Materials (S)

The ongoing generation, use, and transportation of hazardous materials can constitute a threat to the safety of the community.

The transport of hazardous materials on the Ventura Freeway is an important safety issue in the City. The numerous residential, commercial, and industrial developments lying within the freeway corridor face a potential risk of exposure to hazardous materials if a freeway accident involving a vehicle transporting hazardous materials were to occur.

Another important safety issue involves underground facilities, such as storage tanks and natural gas pipelines. Motor vehicle fuels and other toxic substances escaping from these tanks have the potential to seriously contaminate soils and local groundwater.

Agoura Hills is underlain by a network of natural gas pipelines, the largest of which is a 15-inch transmission line traversing the northwestern corner of the City. Natural gas is distributed under high pressure, thereby increasing its explosive potential. Natural gas leaks and explosions can occur as a result of either strong earthquakes or accidental rupture of gas lines during excavation operations at construction sites. Hazardous materials are present throughout the City, but are widely varied in terms of both quantity and type. Such uses as light industry, dry cleaners, and automotive service shops routinely utilize solvents and other toxic substances, and also generate hazardous wastes, which must be properly disposed in compliance with strict federal and state regulations. Households also utilize and store materials that could be considered hazardous, although usually not of the same type and quantity as commercial and industrial uses.

Goal S-5

Protection from Hazardous Materials. Residents, visitors, property, and the natural environment in Agoura Hills are protected to the maximum extent feasible by the use, storage, or transport of hazardous materials.

Policies

S-5.1 **Inter-jurisdictional Coordination.** Continue to coordinate with and support the Los Angeles County Sheriff's Department and Fire Department in carrying out inspections, emergency response, and enforcement of hazardous materials and waste compliance procedures for Agoura Hills. *(Imp S-2)*

S-5.2 **Hazardous Waste Collection.** Conduct frequent and convenient household hazardous waste round-ups. *(Imp U-36)*

S-5.3 **Educate Residents/Businesses.** Educate residents and businesses regarding methods to reduce or eliminate the use of hazardous materials, including the disposal of household hazardous materials, including medications, batteries, e-waste, etc., and the use of safer nontoxic equivalents. *(Imp U-36, NR-14, U-34)*

S-5.4 **Hazardous Materials Regulation.** Work with relevant agencies regarding enforcement of applicable laws requiring all users, producers, and transporters of hazardous materials and wastes to clearly identify the materials that they store, use, produce, or transport, and to notify the appropriate county, state, and federal agencies in the event of a violation. *(Imp S-10)*

S-5.5 **Known Areas of Contamination.** Require proponents of projects in known areas of contamination from oil operations or other uses to perform comprehensive soil and groundwater contamination assessments, and undertake remedial procedures, as appropriate, prior to grading and development. *(Imp S-11)*

S-5.6 **Siting of Sensitive Uses.** Protect sensitive uses, such as schools, medical facilities and hospitals, daycare facilities, eldercare facilities, and residential, from significant impacts from uses that generate, use, or store hazardous materials. *(Imp S-12, S-13)*

F. Emergency Preparedness (S)

The Las Virgenes–Malibu Council of Governments Hazard Mitigation Plan (2018) includes resources and information to assist cities, residents, public and private sector organizations, and others interested in participating in planning for hazards. The Hazard Mitigation Plan provides a list of activities and agencies that may assist the City in reducing risk and preventing loss from future hazard events. The strategies address ~~multi-hazard issues, as well as activities for~~ earthquakes, wildfires, climate change, energy disruption, landslide and debris flow, windstorm, flood and severe winter storm, terrorism, and mass violence. ~~earth movements, flooding, windstorms.~~

~~Terrorism is a continuing threat throughout the world and within the United States. In recent years, terrorism has taken on new forms with the introduction of chemical, biological, and radiological weapons. The probability that an individual/location will be targeted by a terrorist is a function of the attractiveness of the target, potential for success, and potential for avoiding identification and capture.~~

~~In the case of a terrorist event, the Los Angeles County Sheriff's Department would be the lead agency for crisis management, perimeter security, access control, traffic/crowd control, evacuations, notifications, and safeguarding evidence. The Los Angeles County Fire Department would be the lead for fire response, hazardous materials events, and medical/rescue operations. The Los Angeles County Fire Department will be the lead for fire response, hazardous materials, and medical/rescue operations. Although local government emergency response organizations will respond to the incident scene, other appropriate local, state, and federal authorities will be notified. As mutual aid partners, state and federal responders will arrive to augment local responders as necessary.~~

Goal S-6

Preparation for Natural or Manmade Disasters. Effective emergency response to natural or human-induced disasters that minimize the loss of life and damage to property, and also reduce disruptions in the delivery of vital public and private services during and following a disaster.

Policies

S-6.1 **The SEMS Plan.** Maintain and implement the Standardized Emergency Management System (SEMS) Plan to address disasters, such as earthquakes, flooding, hazardous material spills, epidemics, fires, extreme weather, accidents, and terrorism. *(Imp S-2)*

S-6.2 **Post-Disaster Response.** Plan for the continued function of critical facilities following a major disaster to help prevent major problems

during post-disaster response, such as evacuations, rescues, large numbers of injuries, and major cleanup operations. *(Imp CS-2, CS-27, CS-28)*

S-6.3 **Emergency and Disaster Preparedness Exercises.** Coordinate with Los Angeles County and other jurisdictions to conduct emergency and disaster-preparedness exercises to periodically test operational and emergency plans. *(Imp CS-27, S-2)*

S-6.4 **Mutual Aid Agreements.** Continue to participate in mutual-aid agreements to ensure adequate resources, facilities, and other support for emergency response. *(Imp CS-26)*

S-6.5 **Education Programs.** Sponsor and support educational programs regarding emergency response, disaster preparedness protocols and procedures, and disaster risk reduction for City residents and volunteers, and provide ongoing training for City staff. *(Imp CS-27, CS-28)*

G. WINDSTORMS

Severe windstorms pose a significant risk to life and property by creating conditions that disrupt essential systems such as public utilities, telecommunications, and transportation routes. High winds have the potential to cause damage to local homes and businesses from falling trees and debris. In addition, windstorms increase the risk of wildfire as the moisture content decreases in brush and vegetation on hillsides, especially in urban interface areas.

Windstorm Hazard Identification

Given the location and topography of the area, severe windstorms are a possibility. While the historic occurrence of these events on the Agoura Hills area has been infrequent, these events pose a potential threat to life, property, utility delivery systems, infrastructure, and transportation when they occur. Furthermore, if a severe windstorm results in a prolonged utility disruption, it may be necessary to utilize private and public resources to aid in the care and sheltering of displaced residents. High winds can also increase the threat by wildfires. In addition, the economic impact of providing shelter, conducting repairs, and disruption to local businesses can result in economic losses to the entire City. Finally, a severe windstorm can cause the loss of historic trees in the area and require the services of certified arborists.

The risk of trees falling is one of the more significant hazards resulting from high wind events. The leafy canopy and structural elements of a tree crown present a drag type barrier to winds. Trees naturally minimize wind drag through the re-orientation of leaves and through the independent motion of limbs and branches, thus reducing the transfer of uniform sway motion forces to the trunk. The susceptibility of trees to wind-throw can be influenced by the general structure of the trees, the location of the trees in reference to wind patterns and the level and frequency of pruning maintenance.

The Agoura Hills area is subject to Santa Ana Winds that can impact fire conditions. Winds can serve as a catalyst in the canyons to spread fire at a rapid rate. Prolonged winds during the warmest months of the year can decrease vegetation moisture levels and increase the ignition potential in dry underbrush. When urban/wildland interface fires occur, Santa Ana wind conditions can drive flames and increase the spread speed and severity of the fire.

During high wind periods, there is also a threat of downed power lines causing wildfires. In response, SCE began a public notice campaign to reiterate its policy that utility power may be shut-off during high fire risk periods when extreme weather threatens the power lines.

Windstorm Mitigation Strategies

In order to mitigate the impact of windstorms, the City of Agoura Hills tracks approximately 4,500 trees that it maintains according to standards regarding public safety. Codes on tree pruning were recently reviewed and updated and new codes regarding tree maintenance were implemented. The City has established a professional tree maintenance contract with an arborist to maintain all City owned trees. The contract ensures that detailed tree maintenance logs and inventories are kept, resulting in improved care, which can help reduce the City's liability. Under this contract, every City owned tree is assessed on a regular basis. Additionally, the City offers free hazardous oak tree pruning and removal permits for emergency situations.

The following goal and policies address the risks of windstorm hazards in the community.

Goal S-7

Windstorm Preparation. Reduce the potential impact of windstorms that can cause injury, loss of life, structural and infrastructure damage through education, awareness, and preparation.

Policies

S-7.1 **Develop Public Awareness Campaign.** Provide public education materials to City residents pertaining to the protection of life and property before, during and after a windstorm. *(Imp S-23)*

S-7.2 **Landscape and Local Awareness to Fire Code.** Create local City awareness of the types of trees and other vegetation most appropriate for planting in regard to the Fire Code Sections relevant to utility operations in order to avoid utility and vegetation conflicts. *(Imp S-23)*

S-7.3 **Backup Power Facilities.** Encourage property owners and critical facilities to purchase and test backup power facilities for use during a power failure, and to create an equipment/testing log to ensure back power equipment is in working service. *(Imp S-23)*

H. CLIMATE CHANGE

Climate change is a term used to describe large-scale shifts in historically observed patterns in earth's climate system. Although the climate has historically responded to natural drivers, recent climate change has been unequivocally linked to increasing concentrations of greenhouse gases (GHGs) in the earth's atmosphere.

According to "California's Fourth Climate Change Assessment" developed by the State of California, continued climate change will have a severe impact on California. Increased temperatures, drought, wildfires, and sea level rise are several of the main concerns related to climate change in the Southwest.

According to the Environmental Protection Agency (EPA), continued emissions of greenhouse gases (GHGs) will lead to further climate changes. Future changes are expected to include a warmer atmosphere, a warmer and more acidic ocean, higher sea levels, and larger changes in precipitation patterns. The extent of future climate change depends on what is done now to reduce greenhouse gas emissions. The more emitted, the larger future changes will be (Environmental Protection Center, 2015). A more detailed climate vulnerability assessment of the City is included in the City's Climate Action and Adaptation Plan (CAAP) (see discussion further below).

The City of Agoura Hills has implemented several strategies to mitigate the impact of climate change and encourage environmental sustainability. For example, the City participates in the California Statewide Community Development Authority (CSCDA) Open Property Assessed Clean Energy (PACE) Program. The Program finances renewable energy sources, energy and water efficiency improvements, and seismic strengthening improvements for residential and commercial properties.

In addition, the City's Solid Waste Management Program works to reduce waste and encourage recycling. Key efforts include:

- Residential Recycling
- Commercial Recycling
- Electronic Waste Collection
- Organic Recycling
- Construction and Demolition Debris Recycling
- Household Hazardous Waste and E-Waste Disposal
- Illegal Dumping Reporting
- Sharps Disposal

In 2017, the City of Agoura Hills joined the County of Los Angeles and other agencies to participate in the "Clean Power Alliance" (CPA) a locally controlled electricity provider in Southern California. The goal of the CPA is to supply greener power to homes and businesses.

Finally, the California Governor's Office of Planning and Research (OPR) prepares a list of plans and initiatives adopted by California Jurisdictions to address climate change. As of 2016 (3/16/16), the City of Agoura Hills was credited as having been in the process of implementing climate change provisions into its General Plan Policy and General Plan Implementation Measures.

The City has prepared a draft Climate Action and Adaptation Plan (CAAP). The purpose of the CAAP is to reduce greenhouse gas (GHG) emissions and enhance the City's resilience towards vulnerabilities and risks posed by climate change. The CAAP provides a GHG emissions inventory, forecast and targets, the latter of which will meet state goals for reducing GHG emissions. It also contains GHG reduction measures and an assessment of climate vulnerability and adaption. The final CAAP is expected to be completed mid-2022.

The following goals and policies are to reduce GHGs through energy efficiency, water conservation, alternative transportation, solid waste reduction and clean energy, consistent with the CAAP. These are in addition to the following related goals and policies in other chapters and sections of the General Plan: Mobility Goals M-6 through M-10 to encourage alternative transportation methods and reduce reliance on vehicles and their related policies, including in particular Policy M-6.7 (Vehicle Miles Travelled); Solid Waste Goal U-4 (Solid Waste) and its policies to reduce solid waste generation (U-4.2, U-4.4, U-4.5, U-4.7, U-4.8, and U-4.9); Goal U-5 (Energy Conservation) and its policies for energy efficiency and reduced energy use (U-5.3, U-5.4, U-5.6, and U-5.7); Goal LU-1 (Water Supply System) and its policies to conserve water (U-1.4) and use reclaimed water (U-1.6); and Goal LU-5 (City Sustained and Renewed) with its policies for heat island effect and green building standards (LU-5.1, LU-5.2, LU-5.3 and LU-5.4).

Goal S-17

Energy Efficiency. Increase Energy Efficiency in Existing and New Development.

Policies

S-17.1 **Energy Efficiency Outreach.** Provide energy efficiency education to the public, including promoting energy efficient programs and certified buildings, and promoting financing programs for retrofits and upgrades. *(Imp S-27)*

S-17.2 **Energy Evaluations and Audits.** Encourage residence and business energy evaluations and audits available from utility companies. *(Imp S-27)*

S-17.3 **Electrification of Development.** Encourage and explore incentives for new multi-family residential developments and commercial developments to achieve complete electrification. *(Imp S-27, Imp S-28)*

Goal S-18

Water Efficiency. Increase Energy Efficiency through Provision of Water.

Policy

S-18.1 Water Efficiency in Landscape. Consider the application of the City's mandatory Model Water Efficiency Landscape Ordinance (MWELO) to a broader range of landscape projects. *(Imp S-29)*

Goal S-19

Urban Heat Island Effect. Decrease Energy Demand through Reducing the Urban Heat Island Effect.

Policies

S-19.1 Tree Planting. Promote tree planting in the community by providing education on the environmental benefits of trees and best management practices to maintain healthy trees. *(Imp S-27)*

S-19.2 Cool Roofs. Encourage, and consider requiring, light reflecting roofs on new multi-family residential and commercial buildings to absorb less heat, thereby reducing local air temperature. *(Imp S-27, S-30)*

Goal S-20

Solid Waste Generation Reduction. Decrease Greenhouse Gas Emissions through Reducing Solid Waste Generation.

Policy

S-20.1 Organic Waste. Provide organic waste collection services to all residents and businesses, in addition to waste hauling and recycling collection, to reduce organic waste disposal. *(Imp S-31)*

Goal S-21

Vehicle Miles Travelled Reduction. Decrease Greenhouse Gas Emissions through a Reduction in Vehicles Miles Travelled (VMT).

Policies

S-21.1 Bicycle Use. Develop a Citywide network that ensures access to safe bicycle facilities, and connects to regional bicycle facilities. *(Imp S-32)*

S-21.2 Electric Vehicles. Encourage, and consider requiring, installation of electric vehicle chargers in commercial development and multi-family residential development parking facilities. *(Imp S-27, S-33)*

Goal S-22

Clean Energy. Decrease Greenhouse Gas Emissions through Increased Clean Energy Use.

Policy

S-21.1 **Decrease Greenhouse Gas Emissions through Increased Clean Energy Use.** Encourage the availability of clean power to residents and businesses in the City, with the goal of total renewable energy use. *(Imp S-34)*

An additional Climate Change goal and associated policies are provided in Chapter 4, Natural Resources of this General Plan. The goal and policies are also provided below for reference:

Goal NR-10

Greenhouse Gas Reduction. Reduce emissions from all activities within the City boundaries to help mitigate the impact of climate change.

Policies

NR-10.1 **Climate Change.** Comply with all state requirements regarding climate change and greenhouse gas reduction and review the progress toward meeting the emission reductions targets. *(Imp NR-25)*

NR-10.2 **Regional Coordination.** Ensure that that any plans prepared by the City, including the General Plan, are aligned with, and support any regional plans to help achieve reductions in greenhouse gas emissions. *(Imp NR-26)*

NR-10.3 **Outreach and Education.** Partner with local agencies and organizations to coordinate outreach and education regarding the effects of greenhouse gas emissions and climate change. *(Imp NR-27)*

The following goals and policies address climate adaptation and resiliency, and seek to reduce vulnerability and increase the community's resilience to climate change.

Goal S-23

Adaptation to the Impacts of Wildfire. Address the effects of climate change associated with extended droughts that increase the frequency and intensity of wildfires.

Policies

Policies implementing this goal are found in Section C. Wildland and Urban Fire Hazards, Goal S-3, Protection from Fire Hazards. The policies are also provided below for reference.

S-3.9 **Disaster Communication**. Improve disaster coordination and communication among public agencies. *(Imp S-19, CS-26, CS-27)*

S-3.10 **Emergency Evacuation Plan**. Prepare a citywide emergency evacuation plan and to maintain adequate departure paths especially in areas that don't have at least two emergency evacuation routes (i.e., points of ingress and egress). *(Imp S-20)*

S-3.11 **Emergency Access**. Ensure new development has adequate emergency access through sufficient road widths according to the Los Angeles County Fire Department standards, which are currently 26 feet wide for single-story structures and 28 feet wide for multi-story structures, as well as adequate, visible street address signage to identify buildings. *(Imp CS-30)*

S-3.12 **Fire Management Plan.** Develop a fire management plan that maps fuel load buffer zones within the wildland/urban interface, and includes actions to reduce fuel loads, in coordination with the County Fire Department. *(Imp S-22)*

Goal S-24

Adaptation to the Impacts of Extreme Heat. Address the effects of climate change associated with extreme heat days.

Policies

S-24.1 **Community Cooling Centers.** Identify and promote facilities throughout the City to provide adequate cooling for the population during extreme heat days. *(Imp S-16, S-23)*

S-24.2 **Outreach and Education.** Provide public outreach, education, and engagement regarding the risks of extreme heat and preventative measures. *(Imp S-16, S-23)*

S-24.3 Maintain Adequate **Transportation.** Maintain roadways, bridges and other transportation facilities during extreme heat events. *(Imp S-35)*

Goal S-25

Adaptation to the Impacts of Flooding. Address the effects of climate change related to increased storm water runoff from the combination of severe drought and increases in rain.

Policies implementing this goal are found in section A. Flood Hazards, Goal S-1, Protection from Flood Hazards.

Appendix A General Plan Policies Addressing Global Climate Change lists goals and policies elsewhere in the General Plan that address climate change, in addition to those listed in this section.

I. Noise (N)

The urban environment contains a variety of noise sources that can affect the way people live and work. Some types of noise are only short-term irritants, like the pounding of a jackhammer or the whirring rattle of a lawnmower. These noise sources generally can be controlled through City noise regulations, such as a noise ordinance. However, other noises, such as freeway noise, may be permanent fixtures in the community, posing long-term health hazards to community residents. The City of Agoura Hills is bisected by the Ventura Freeway and several arterial roadways. The Ventura Freeway (US-101) is the most significant noise source within the City due to the high volume of traffic using this roadway on a daily basis. Other areas of noise in the community are along heavily trafficked roads, such as Kanan Road, Thousand Oaks Boulevard, and Agoura Road.

Noise from motor vehicles is one of the main sources of noise in the community

Sound is created when objects vibrate and produce pressure variations that move rapidly outward into the surrounding air. The main characteristics of these air pressure waves are amplitude, which we experience as a sound's "loudness," and frequency, which we experience as a sound's "pitch." The standard unit of sound amplitude is the decibel (dB), which is a measure of the physical magnitude of the pressure variations relative to the human threshold of perception. The human ear's sensitivity to sound amplitude is frequency-dependent, and thus a modification is usually made to the decibel to account for this; A-weighted decibels (dBA) incorporate human sensitivity to a sound's frequency as well as its amplitude.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, during the night, or over a 24-hour period, called the community noise equivalent level (CNEL). Environmental noise levels are generally considered low when the CNEL is below 55 dBA, moderate in the 55 to 70 dBA range, and high above 70 dBA.

Community Noise Contours

Existing roadway noise contours are shown in Figure N-1 (Noise Contours—Existing). Noise contours represent lines of equal noise exposure, just as the contour lines on a topographic map are lines of equal elevation.

The US-101 and arterial roads, such as such as Kanan Road, Thousand Oaks Boulevard and Agoura Road, show the greatest level of noise exposure in the community. Existing residential uses in close proximity to these roadway segments could be exposed to high noise levels on a regular basis. However, as

new residential projects are proposed near major roadways or other potential noise sources, future noise levels are evaluated and noise mitigation strategies are required as appropriate to meet City noise standards. Future noise conditions for roadways are presented for the time period ending in 2035 and were derived from projected traffic levels for that year. (Figure N-2 [Noise Contours—Future]).

New nonresidential uses proposed in proximity to existing residential uses and other sensitive receptors may also create potential noise issues. Project-specific noise studies help identify the level of impact and appropriate mitigation measures.

As shown in Figure N-2, there are limited areas of the City where noise levels are expected to increase, and these are associated with increases in traffic volumes. These areas are located along Agoura Road and the Ventura Freeway. The majority of this is associated with the increase in regional traffic along the Ventura Freeway, rather than the projected land development activity associated with the General Plan.

Building interior noise levels can be reduced by protecting the receiver with acoustical structures, enclosure, or construction techniques. Windows and doors are the most important paths for sound to enter a structure. Use of sound insulating doors and double paned windows can provide substantial reductions of interior noise levels. Because these features have little effect in reducing noise when they are left open, installation of air conditioning units for adequate ventilation may be required.

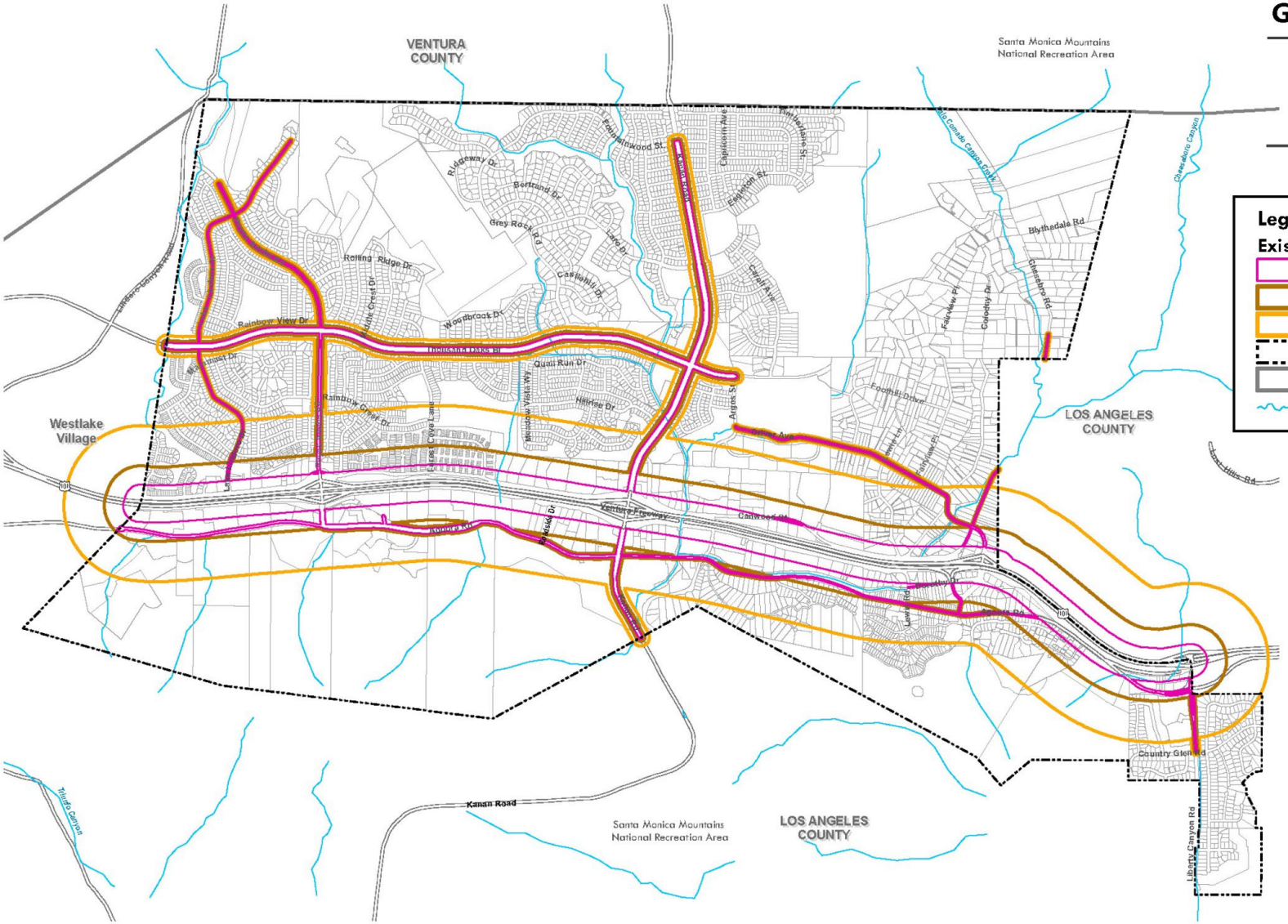
Noise exposure criteria should be incorporated into land use planning to reduce future noise and land use incompatibilities. This is achieved by specifying acceptable noise exposure ranges for various land uses throughout the City. These criteria are designed to integrate noise considerations into land use planning to prevent noise/land use conflicts. Table N-1 (Noise/Land Use Compatibility Matrix) presents criteria used to assess the compatibility of proposed land uses with the noise environment.

In addition to the noise/land use compatibility matrix, the City's interior and exterior noise standards are identified in Table N-2 (Interior and Exterior Noise Standards). The City's Municipal Code also contains noise standards and regulations for residential development and limits unnecessary, excessive, and annoying noise in the City.

Policies in this section protect residents, businesses, and visitors from noise hazards by establishing exterior and interior noise standards.

CITY of AGOURA HILLS
General Plan Update

Noise Contours-Existing



Legend

Existing Roadway Noise Contours

- 70 CNEL
- 65 CNEL
- 60 CNEL
- City Limits
- County Boundary
- Streams

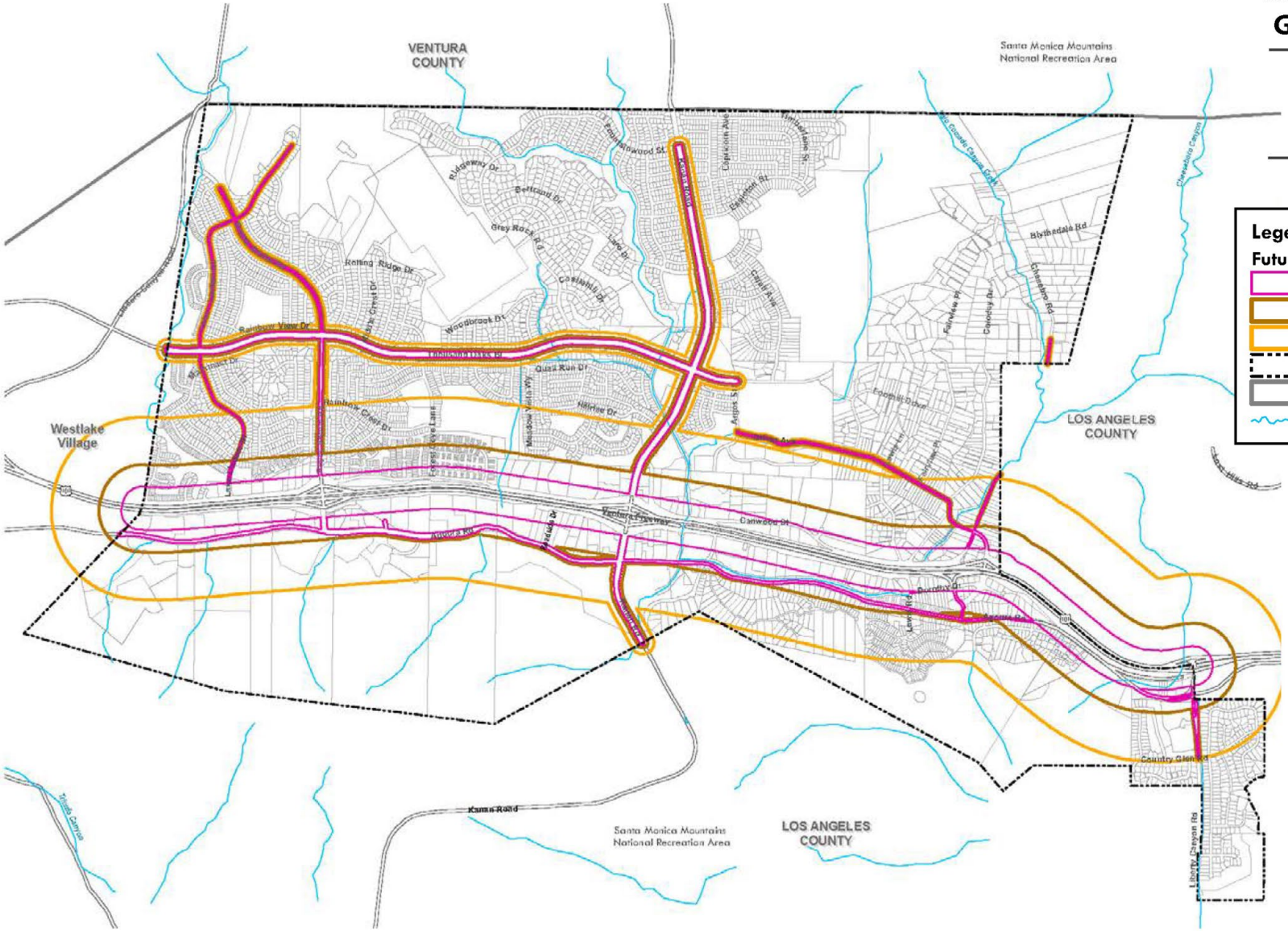
Miles
0 0.125 0.25 0.5 0.75

Source: Fehr & Peers, June 2009
D21377_Agoura_Hills\noise.mxd

Figure N-1

CITY of AGOURA HILLS
General Plan Update

Noise Contours-Future



Source: Fehr & Peers, June 2009
D21377_Agoura_Hills\noise.mxd

Figure N-2

Table N-1 Noise/Land Use Compatibility Matrix

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Categories	Uses	<55	60	65	70	75	80>	
Residential	Single Family, Duplex, Multiple Family	A	A	B	B	C	D	D
Residential	Mobile Homes	A	A	B	C	C	D	D
Commercial Regional, District	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Commercial Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theater	A	A	A	A	B	B	C
Commercial Industrial Institutional	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
Commercial Recreation **Institutional** Civic Center	Amphitheater, Concert Hall Auditorium, Meeting Hall	B	B	C	C	D	D	D
Commercial Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart Track; Equestrian Center, Sports Club	A	A	A	B	B	D	D
Commercial General, Special **Industrial, Institutional**	Automobile, Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Institutional General	Hospital, Church, Library, Schools' Classroom	A	A	B	C	C	D	D
Open Space	Parks	A	A	A	B	C	D	D
Open Space	Golf Course, Cemeteries, Nature Centers, Wildlife Habitat	A	A	A	A	B	C	C

SOURCE: Mestre Greve Associates, 1992 General Plan

Zone A: Clearly Compatible	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Zone B: Normally Compatible	New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Zone C: Normally Incompatible	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.
Zone D: Clearly Incompatible	New construction or development should generally not be undertaken.

Table N-2 Interior and Exterior Noise Standards			
Land Use Categories		CNEL	
Categories	Uses	Interior [a]	Exterior [b]
Residential	Single Family, Duplex, Multiple Family	45 [c]	55
	Mobile Home	45	55
Commercial	Hotel, Motel, Transient Lodging	45	—
	Commercial Retail, Bank, Restaurant	55	—
	Office Building, Research and Development, Professional Offices, City Office Building	50	—
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	—
	Gymnasium (Multipurpose)	50	—
	Sports Club, Movie Theatres	55	—
Industrial	Manufacturing, Warehousing, Wholesale, Utilities	65	—
Institutional	Hospital, Schools' classroom	45	55
	Church, Library	45	55
Open Space	Parks	—	65

a. Includes bathrooms, toilets, closets, corridors
b. Limited to the following:
   - Private yard of single family
   - Multi-family private patio or balcony which is served by a means of exit from inside the dwelling
   - Balconies 6 feet deep or less are exempt
   - Mobile home park
   - Park's picnic area
   - School's playground
c. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of UBC.

NOISE AND LAND USE COMPATIBILITY

Goal N-1

Land Use Conflicts. Minimized land use conflicts between various noise sources and other human activities.

Policies

N-1.1 **Noise Standards.** Require noise mitigation for all development where the projected noise levels exceed those shown in Table N-2, to the extent feasible. *(Imp N-1)*

N-1.2 **Compatibility of Noise-Generating Uses with Sensitive Receptors.** Require buildings and sites to be designed such that surrounding noise sensitive uses are adequately buffered from noise generating uses. *(Imp N-2)*

N-1.3 **Mixed-Use Development Standards.** Require, whenever physically possible, new mixed-use developments to locate noise sources away from the residential portion of the development, and apply physical construction standards to reduce noise between uses. *(Imp N-2)*

N-1.4 **Noise Mitigation Measures.** Ensure that all new development provides adequate sound insulation or other protection from existing and anticipated noise sources. *(Imp N-3)*

N-1.5 **Sensitive Receptors.** Incorporate ambient noise level considerations into land use decisions involving schools, hospitals, and similar noise-sensitive uses. *(Imp N-4)*

N-1.6 **Noise Standards.** Enforce standards that specify acceptable noise limits for various land uses throughout the City. Table N-1 (Noise/Land Use Compatibility Matrix) shows criteria used to assess the compatibility of proposed land uses with the noise environment. These criteria are the bases of specific Noise Standards. These standards, presented in Table N-2 (Interior and Exterior Noise Standards), define City policy related to land uses and acceptable noise levels. *(Imp N-5)*

MOBILE NOISE SOURCES

Goal N-2

Motor Vehicles. Minimized motor vehicle traffic noise impacts on sensitive noise receptors.

Policies

N-2.1 **State Motor Vehicle Noise Standards.** Encourage the enforcement of state motor vehicle noise standards for cars, trucks, and motorcycles through coordination with the California Highway Patrol and the Los Angeles County Sheriff's Department. *(Imp N-9)*

N-2.2 **Roadway Mitigation Measures.** Ensure the employment of noise mitigation measures in the design of roadway improvement projects consistent with funding capability. Support efforts by the California Department of Transportation and others to provide for acoustical protection of existing noise-sensitive land uses affected by these projects. *(Imp N-6)*

N-2.3 **Noise Mitigation Along Major Arterials.** Require sound-attenuating devices, such as walls and berms, or construction best management practices, in the design of residential and other noise-sensitive land uses that are adjacent to the Ventura Freeway and major arterials. *(Imp N-7)*

N-2.4 **New Development.** New development along the freeway corridor and major thoroughfares will be required to prepare noise studies, as deemed necessary by the Planning Department. *(Imp N-1)*

NON-TRANSPORTATION-RELATED NOISE

Goal N-3

Non-Transportation-Related Noise. Minimized non-transportation-related noise impacts on sensitive noise receptors.

Policies

N-3.1 **Protection from Stationary Noise Sources.** Continue to enforce interior and exterior noise standards to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources, such as machinery, equipment, fans, and air conditioning equipment. *(Imp N-1, N-3, N-4, N-5, N-8)*

N-3.2 **Regulation of Sound-Amplifying Equipment.** Continue to regulate the use of sound-amplifying equipment. *(Imp N-8)*

N-3.3 **Enforcement of Hours of Construction and Maintenance Activity.** Continue to enforce restrictions on hours of construction activity so as to minimize the impacts of noise and vibration from the use of trucks, heavy drilling equipment, and other heavy machinery, including property maintenance equipment, to adjacent uses, particularly in residential areas. *(Imp N-8)*