

# Las Virgenes-Malibu Council of Governments Multi-Jurisdictional Hazard Mitigation Plan



## Las Virgenes-Malibu Council of Governments

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## SECTION 1. INTRODUCTION

### Acknowledgements

The Multi-Jurisdictional Hazard Mitigation Plan was an extensive effort that involved the efforts of multiple individuals representing all five cities within the Las Virgenes-Malibu Council of Governments. Participants in the process included:

#### Steering Committee

Greg Ramirez, City Manager - City of Agoura Hills

Tony Coroalles, City Manager - City of Calabasas

Cherie L. Paglia, City Manager - City of Hidden Hills

Jim Thorsen, City Manager - City of Malibu

Ray Taylor, City Manager - City of Westlake Village

Terry Dipple, Executive Director - Las Virgenes-Malibu Council of Governments

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Louis Celaya, Deputy City Manager - City of Agoura Hills

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Kerry Kallman, Administrative Analyst - City of Westlake Village

## EXECUTIVE SUMMARY

The Las Virgenes-Malibu Council of Governments (LVMCOG) was established by its members under a Joint Powers Agreement to provide a vehicle for members to engage in regional and cooperative planning and coordination of government services and responsibilities. The LVMCOG also provides a regional organization for the review of federal, state and regional projects and studies which involve the use of federal, state and regional funds.

The LVMCOG is located in the northwest area of Los Angeles County and is comprised of five cities: Agoura Hills, Calabasas, Hidden Hills, Malibu, and Westlake Village. The total five city population as of the 2010 U.S. Census was 66,159.

City	Population (2010 U.S. Census)
Agoura Hills	20,330
Calabasas	23,058
Hidden Hills	1,856
Malibu	12,645
Westlake Village	8,270
<b>Total</b>	<b>66,159</b>

**Table 1: LVMCOG Population by City**

SOURCE: U.S. Census Bureau

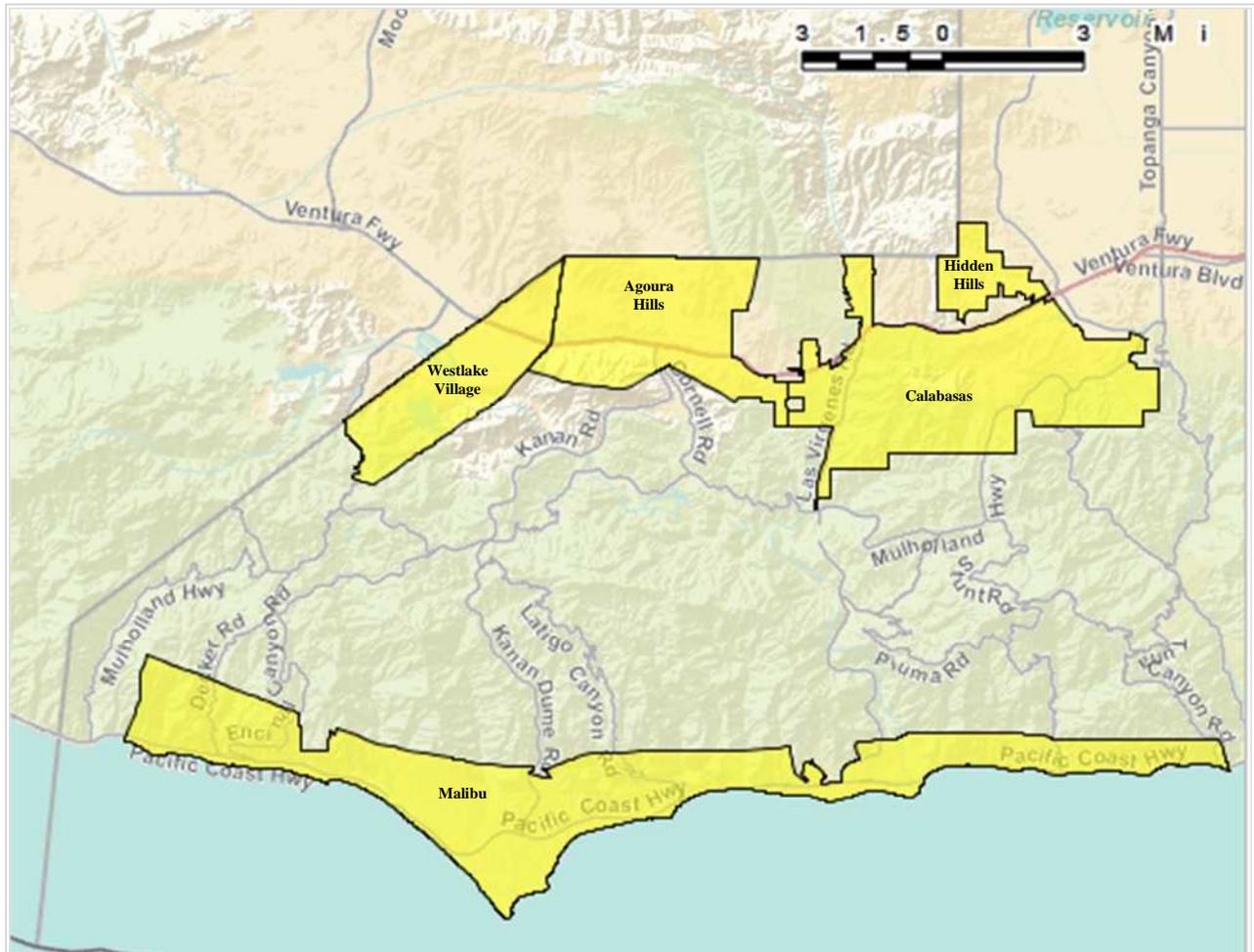


**Map 1: Area Map**

## Multi-Jurisdictional Plan

The cities within the LVMCOG experience similar hazards and have combined their efforts in order to produce a more thorough Hazard Mitigation Plan. Combining efforts, identifying common threats, and establishing regional mitigation strategies was a collaborative task that allowed mutual participation and more effective use of resources.

This Multi-Jurisdictional Hazard Mitigation Plan meets the requirements of the Disaster Mitigation Act of 2000. By preparing this plan, the Las Virgenes-Malibu Council of Governments is eligible for federal mitigation funding after disasters and to apply for mitigation grants before disasters strike.



Map 2: LVMCOG Cities

### Los Angeles County Operational Area and Disaster Management Areas

The Los Angeles County Office of Emergency Management (OEM) was established by Chapter 2.68 of the County Code with responsibility for organizing and directing the preparedness efforts of the Emergency Management Organization of Los Angeles County. OEM responsibilities include: Planning and Coordination, Operations, Training, Technical Operations, and Public Education.

The Los Angeles County Operational Area is divided into 8 groupings (A through H):

<p><b>Area A</b>                      Beverly Hills                      Culver City                      Santa Monica                      West Hollywood</p> <p><b>Area B</b>                      Agoura Hills*                      Calabasas*                      Hidden Hills*                      Lancaster                      Malibu*                      Palmdale                      Santa Clarita                      Westlake Village*</p> <p><b>Area C</b>                      Alhambra                      Burbank                      Glendale                      La Canada Flintridge                      Monterey Park                      Pasadena                      San Fernando                      San Gabriel                      San Marino                      South Pasadena</p>	<p><b>Area D</b>                      Arcadia                      Azusa                      Baldwin Park                      Bradbury                      Claremont                      City Of Industry                      Covina                      Diamond Bar                      Duarte                      El Monte                      Glendora                      Irwindale                      La Puente                      La Verne                      Monrovia                      Pomona                      Rosemead                      San Dimas                      Sierra Madre                      South El Monte                      Temple City                      Walnut                      West Covina</p>	<p><b>Area E</b>                      Artesia                      Bell                      Bell Gardens                      Bellflower                      Carson                      Cerritos                      City Of Commerce                      Compton                      Cudahy                      Downey                      Hawaiian Gardens                      Huntington Park                      La Habra Heights                      La Mirada                      Lakewood                      Lynwood                      Maywood                      Montebello                      Norwalk                      Paramount                      Pico Rivera                      Santa Fe Springs                      South Gate                      Vernon                      Whittier</p>	<p><b>Area F</b>                      Avalon                      Long Beach                      Signal Hill</p> <p><b>Area G</b>                      El Segundo                      Gardena                      Hawthorne                      Hermosa Beach                      Inglewood                      Lawndale                      Lomita                      Manhattan Beach                      Palos Verdes Estates                      Rancho Palos Verdes                      Redondo Beach                      Rolling Hills                      Rolling Hills Estates                      Torrance</p> <p><b>Area H</b>                      Los Angeles</p>
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\*LVMCOG Members highlighted in in blue

The Joint Powers Agreement provides for inter-agency cooperation in major natural or man-made disasters. This group meets on a monthly basis and is responsible for:

- Creating and updating emergency, terrorism, recovery volunteer, debris management and hazard mitigation plans
- Training for emergency and disaster preparedness for cities, residents and businesses
- Technology for communications
- Homeland Security Grants Program (management)



## **Hazard Mitigation Plan Organization**

This Hazard Mitigation Plan contains background information on the purpose and methodology used to develop the mitigation plan, a profile of the Las Virgenes-Malibu Region, sections on the identified hazards that threaten the Region as well as the associated risks, a five-year mitigation strategy action plan matrix, and supporting information contained in the Appendices. Additional section details are provided in Section 1: Plan Introduction.

## **Mitigation Strategy Five-Year Action Plan**

The Las Virgenes-Malibu Council of Governments Multi-Jurisdictional Hazard Mitigation Action Plan includes resources and information to assist residents, public and private sector organizations, and others interested in participating in planning for hazards. The Mitigation Strategy Action Plan provides a list of activities designed to assist the LVMCOG to reduce risk and prevent losses from future hazard events. The strategies address multi-hazard issues, as well as hazard specific activities for earthquakes, fires, flooding, landslide, windstorms, and terrorism.

## **Plan Participants**

The development of the Las Virgenes-Malibu Council of Governments Multi-Jurisdictional Hazard Mitigation Plan has been a collaborative city and community effort. The planning process was facilitated by a variety of Region-wide departments along with a consulting agency, MLC & Associates, Inc. The Las Virgenes-Malibu Council of Governments Steering Committee and Planning Group provided vital guidance in developing and updating the plan. Since five cities are represented, at least one representative from each city was a member of each committee.

The public was invited to participate in the development and update of the plan. In addition, ongoing disaster preparedness and mitigation information is routinely provided through public notices, city websites, newsletters, cable television, and the local newspapers.

The Steering Committee was chosen to provide needed feedback, guidance and approval. The Steering Committee drafted the original Mission Statement, Plan Goals, identified the hazards list, and is responsible for final approval of the plan and strategies.

The Planning Group provided key information, supporting documentation, and updated the hazard ratings for the identified local area hazards. The hazard rating identified hazards according to probability, magnitude/severity, warning time and duration. The survey is provided in Annex C: Disaster Preparedness Risk Survey.

Part II of the plan contains hazard specific information. Each of the sections provides information on the background and history of the hazard, as well as the associated economic and social impacts.

## Plan Mission

The Mission of the Las Virgenes-Malibu Council of Governments Multi-Jurisdictional Hazard Mitigation Plan is to promote sound public policy and programs designed to protect the public, critical facilities, infrastructure, private and public property, and the environment from natural and human generated hazards. This will be achieved by developing, implementing, and maintaining this plan to guide the Region towards creating and maintaining a safer more sustainable community.

## Plan Goals

The Plan Goals describe the overall direction that the LVMCOGs' agencies, organizations, and citizens can take to minimize the impacts of hazards. The Plan Goals help to guide the direction of future activities aimed at reducing risk and preventing loss from hazards. The Plan Goals are the foundation for the broad direction of the Mission Statement and the specific recommendations that are outlined in the strategies. These goals are divided into 4 major categories:

### **To Protect Life, Property, Environment**

- Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to hazards.
- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.
- Encourage preventative measures for existing and new development in areas vulnerable to hazards.

### **Public Awareness**

- Develop and implement education and outreach programs to increase public awareness of the risks associated with hazards.
- Develop and implement education and outreach programs to increase public awareness of the mitigation measures associated with hazards.
- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

### **Partnerships and Implementation**

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.
- Encourage leadership within public and private sector organizations to prioritize and implement local, county, and Regional hazard mitigation activities.
- Assist in the development of the Safety Element of the General Plan

### **Emergency Management**

- Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.
- Update current ordinances, make recommendations for Region guidelines, codes, and permitting process and establish new ordinances that support mitigation.
- Strengthen emergency operations by increasing collaboration and coordination among departments, public agencies, non-profit organizations, business, and industry.
- Coordinate and integrate hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

## Strategy Organization

The data collection, research and the public participation process resulted in the development of the hazard mitigation strategies listed. The strategies outline activities in which each of the various cities and citizens can be engaged to reduce risk. They reflect future action to be taken in order to reduce the loss of property and life. Section 4 Hazard Mitigation Goals and Strategies provides brief descriptions of the projects and strategies developed.

## Plan Implementation, Monitoring, and Evaluation

Section 5 Plan Implementation, Monitoring, and Evaluation details the formal process that describes how the Las Virgenes-Malibu Council of Governments Multi-Jurisdictional Hazard Mitigation Plan is maintained. The plan maintenance process included a schedule for monitoring and evaluating the plan and producing a plan revision every five years. In addition, this section also describes how the LVMCOG integrated public participation in the plan maintenance and update process.

Finally, the Plan Implementation, Monitoring, and Evaluation section includes an explanation of how the Las Virgenes-Malibu Council of Governments incorporated the mitigation strategies outlined into existing planning mechanisms such as each city's individual General Plans, Capital Improvement Plans, Building & Safety Codes and other programs, and/or plans within the cities.

## Plan Adoption

In 2005, the Las Virgenes-Malibu Council of Governments and each city adopted the original Multi-Jurisdictional Hazard Mitigation Plan. Subsequently, in 2012 this HMP update was reviewed and adopted. These governing bodies have the authority to promote sound public policy regarding hazards.

The Executive Director of the Las Virgenes-Malibu COG was responsible for submitting the updated plan to the State Hazard Mitigation Officer at the Governor's Emergency Management Agency (Cal-EMA). Cal-EMA then submitted the updated plan to the Federal Emergency Management Agency (FEMA) for review. This review addressed the federal criteria outlined in *Title 44 CFR Emergency Management and Assistance: Part 201 – Mitigation Planning*. Upon acceptance by FEMA, Las Virgenes-Malibu Council of Governments will maintain its eligibility for Hazard Mitigation Grant Program funds.

## Coordinating Body

The Las Virgenes-Malibu Council of Governments Hazard Mitigation Steering Committee was responsible for coordinating implementation of plan strategies and undertaking the formal review process. The Planning Group was responsible for supporting the Steering Committee and the tactical/operational tasks required to implement the Hazard Mitigation Plan.

## Implementation Through Existing Programs

Each city within the Las Virgenes-Malibu Council of Governments addresses statewide planning goals and legislative requirements through their General Plans, Capital Improvement Plans, and Building & Safety Codes. This Multi-Jurisdictional Hazard Mitigation Plan provides a series of recommendations that are closely related to the goals and objectives of these existing planning programs. Each city may implement the recommended mitigation strategies through existing programs and procedures.

## **Economic Analysis of Mitigation Projects**

Determining the economic feasibility of mitigating hazards can provide decision makers with an understanding of the potential benefits and costs of an activity, as well as provide a basis upon which to compare alternative projects. The Federal Emergency Management Agency's approach to identify costs and benefits associated with hazard mitigation strategies or projects falls into two general categories: benefit-cost analysis and cost-effectiveness analysis.

Conducting a benefit-cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now in order to avoid disaster-related damages later. A cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. For the purposes of this HMP, an estimate of the benefit/cost ratio was used to evaluate the relative feasibility of the mitigation projects and strategies outlined in Section 4 Hazard Mitigation Goals and Strategies.

## **Formal Review Process**

As part of this update, the LVMCOG HMP was evaluated to determine the effectiveness of existing mitigation programs and projects as well as consider changes in land development or other changes that may have affected mitigation priorities. The Executive Director of the Las Virgenes-Malibu COG was responsible for contacting the Hazard Mitigation Steering Committee members and organizing progress reviews. Committee members were then responsible for monitoring and evaluating the progress of the mitigation strategies in the plan.

## **Continued Public Involvement**

The Las Virgenes-Malibu Council of Governments is dedicated to involving the public directly in the continual review and updating of the Multi-Jurisdictional Hazard Mitigation Plan. Copies of the plan were made available at various locations throughout the Region including but not limited to libraries, City Halls and respective city websites. The existence and location of these copies were publicized on city websites and through information bulletins.

## PLAN DESCRIPTION

### Multi-Jurisdictional Hazard Mitigation Plan

The Las Virgenes-Malibu Council of Governments (LVMCOG) is comprised of the cities of Agoura Hills, Calabasas, Hidden Hills, Malibu and Westlake Village. The LVMCOG was voluntarily established by its members under a Joint Powers Agreement to provide a vehicle for members to engage in regional and cooperative planning and coordination of government services and responsibilities. The LVMCOG also provides a local area organization for the coordination of regional projects and studies funded by federal, state, and local governments. While disasters cannot be fully prevented, their effects can be reduced through a well-organized public education and awareness effort, preparedness, mitigation, and coordinated response. In 2005, the LVMCOG chose to develop the Multi-Jurisdictional Hazard Mitigation Plan (HMP) in order to coordinate efforts and resources. This update to the HMP is part of the ongoing renewal process.

### Why Develop a Mitigation Plan?

The Robert T. Stafford Disaster Relief and Emergency Assistance Act provides the basis for federal assistance to state and local governments impacted by a disaster and outlines the requirements for mitigation planning. Hazard Mitigation is considered the first step in preparing for emergencies (rather than placing a reliance on recovery after an event). The Federal Emergency Management Agency (FEMA) requires state and local governments to update their hazard mitigation plans every 5 years. The consequences of not having an approved Local Hazard Mitigation Plan can be significant. Without it, cities are ineligible for FEMA mitigation programs including: the Hazard Mitigation Grant Program and Flood Mitigation Assistance Program. More importantly, an ongoing mitigation effort is required in order for cities to obtain public assistance funding for repetitive losses (e.g., damaged facilities) following a disaster.

The Disaster Mitigation Act of 2000 (DMA 2000), Section 322 (a-d) requires that local governments maintain mitigation plans that describe the process for identifying hazards, risks and vulnerabilities, identifies and prioritizes mitigation actions, encourages the development of local mitigation, and provides technical support for those efforts as a condition of receiving federal disaster mitigation funds. This Hazard Mitigation Plan serves to meet these requirements.

Furthermore, this plan assists the LVMCOG in reducing risk from hazards by identifying resources, information, and strategies for risk reduction, while helping to guide and coordinate mitigation activities throughout the Las Virgenes-Malibu Region. Mitigation strategies for reducing the potential losses identified in the risk assessment are outlined and are based on existing authorities, policies, programs, resources, and the ability to expand on and improve these existing tools. In summary, the information and mitigation strategies within the Hazard Mitigation Plan:

- Establish a basis for coordination and collaboration between departments and the public in the Las Virgenes-Malibu Council of Governments Region
- Identify and prioritize future mitigation projects
- Assist in meeting the requirements of federal assistance programs

**Whom Does the Mitigation Plan Affect?**

This Multi-Jurisdictional Hazard Mitigation Plan affects the entire region and provides a framework for pre-emptive planning for hazards. The resources and background information in the plan are applicable area-wide, and the goals and recommendations lay the groundwork for mitigation plans and partnerships for neighboring communities.

**How is the Plan Used?**

Each section of the Hazard Mitigation Plan provides information and resources to assist in understanding the region and the hazard-related issues facing citizens, businesses, and the environment. The sections of the HMP combine to create a document that guides the mission to reduce risk and prevent loss from future hazard events.

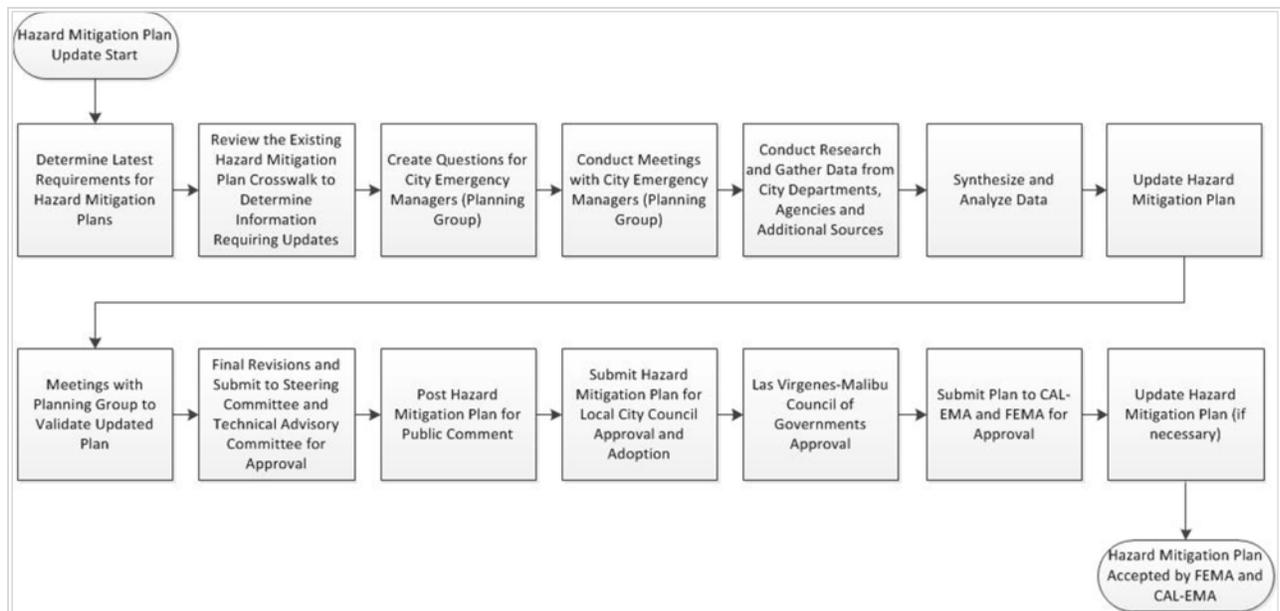
**Plan Update Process**

The update of this plan was a collaborative effort. The process was facilitated across multiple departments along with a consulting agency, MLC & Associates, Inc. The Steering Committee was composed of the Las Virgenes-Malibu Council of Governments City Managers and was established in order to guide the process and provide final approval of the HMP and mitigation strategies. In addition, the Planning Group facilitated the plan update process, provided feedback, reviewed the plan, and was responsible for initial approvals.

Various departments within the cities assisted in updating the plan. Information resources included but were not limited to: General Plans, Master Plans, SEMS Plans, reports and studies, hazard maps, and public process documentation. Participating departments included:

- Building & Safety
- City Manager
- Community Development
- Emergency Preparedness
- Fire
- Planning
- Public Works
- Recreation & Parks
- Sheriff’s Department

The workflow below depicts the basic process of updating the plan.



**Figure 1: HMP Update Process Workflow**

### Internal Input

The Steering Committee was composed of the Las Virgenes-Malibu Council of Governments City Managers and was established in order to facilitate the update to the plan, provide feedback, guidance, and approval.

The Hazard Mitigation Steering Committee along with Planning Committee, city staff and various other stakeholders were involved in updating the plan. This process involved meetings, discussion and individual reviews and input. The planning process included:

- Planning sessions with LVMCOG representatives
- Interviews with city Emergency Management and Disaster Preparedness personnel
- Reviews of historical disaster events in the local area
- A review of activities related to hazard mitigation from existing programs and city General Plans, Capital Improvement Projects, and Development Projects

### External Input

Existing mitigation plans, programs and activities from neighboring communities and from around the country were reviewed as well as current FEMA hazard mitigation planning standards and the State of California Hazard Mitigation Plan Guidance document. In addition, geographic area and hazard specific data were generated to develop scenario based hazard maps. These resources were valuable in updating the LVMCOG Hazard Mitigation Plan (see [Annex A Resources](#) for source information).

Information from the sources noted above was evaluated and (when applicable) incorporated into the plan. In addition, the information gathered served as a basis for the strategy sessions that were conducted to document ongoing and future mitigation activities:

## REQUIREMENTS FOR MITIGATION PLANS

### Federal and State Requirements

The following Federal requirements must be met for approval of a Hazard Mitigation Plan:

- Open public involvement, with public meetings that introduce the process and project requirements.
- The public must be afforded opportunities for involvement in: identifying and assessing risk, drafting a plan, and public involvement in approval stages of the plan.
- Community cooperation, with opportunity for other local government agencies, the business community, educational institutions, and non-profits to participate in the process.
- Incorporation of local documents, including General Plans, Zoning Ordinances, Building Codes, and other pertinent city and regional documents.

The following components must be part of the planning process:

- Complete documentation of the planning process.
- A detailed risk assessment on hazard exposures in the community.
- A comprehensive mitigation strategy, which describes the goals & objectives, including proposed strategies, programs & actions to avoid long-term vulnerabilities.
- A plan maintenance process, which describes the method and schedule of monitoring, evaluating and updating the plan and integration of the All Hazard Mitigation Plan into other planning mechanisms.
- Formal adoption by each City Council.
- Plan Review by CAL EMA and FEMA.

### Public/Community Process

Public participation is a key component of strategic planning processes. Citizen participation offers stakeholders in the community the opportunity for inclusion of their interests and concerns into the process. The Federal Emergency Management Agency requires public input during the development of local hazard mitigation plans.

During the HMP development and update process, the public was invited to participate. Information was provided on city websites, newsletters, cable television stations, and the local newspapers. Examples are provided in [Annex E Planning and Public Involvement](#).

## HAZARD MITIGATION PLAN ORGANIZATION

The Hazard Mitigation Plan is organized as follows:

### **PART I: OVERVIEW AND MITIGATION STRATEGY ACTION PLAN**

#### **Section 1: Introduction**

The Introduction provides an overview of the Hazard Mitigation Plan Mission, Goals, and Strategies. In addition, this section outlines the process used to develop the goals and strategies that cut across the six hazards addressed in the Hazard Mitigation Plan. Finally, this section describes the background and purpose of developing the Hazard Mitigation Plan and the planning process.

#### **Section 2: Community Profile**

The Community Profile section presents the history, geography, demographics, and socio-economics of Las Virgenes-Malibu Region. It serves as a tool to provide a historical perspective of hazards in the area, potential impacts, and identifies at risk populations.

#### **Section 3: Risk Assessment**

The Risk Assessment section provides information on hazard identification, vulnerability, and risk associated with hazards in Las Virgenes-Malibu Region.

#### **Section 4: Multi-Hazard Goals and Strategies**

The Multi-Hazard Goals and Strategies section describes the mitigation strategies developed for the HMP. The strategies address multi-hazard issues, as well as hazard-specific activities that can be implemented to reduce risk and prevent loss from future events.

#### **Section 5: Plan Maintenance**

The Plan Maintenance section provides information on plan implementation, monitoring and evaluation.

### **PART II: HAZARD SPECIFIC INFORMATION**

Part II provides hazard specific Information on the six hazards addressed in the HMP. Continuing hazards occur on an ongoing and/or seasonal basis and may be predicted through historic evidence and scientific methods. Each of the hazard-specific sections includes information on the history, hazard causes and characteristics, hazard assessment, mitigation goals and strategies. Continuing hazards addressed in the plan include:

#### **Section 6: Earthquake**

#### **Section 7: Wildfire**

#### **Section 8: Windstorm**

#### **Section 9: Landslide**

#### **Section 10: Flood**

#### **Section 11: Terrorism**

### **PART III: ANNEXES**

The Annexes includes references to the information used to gather data and conduct analytical research to assemble the Las Virgenes-Malibu COG Hazard Mitigation Plan. The Resources section also includes a description of the tools used to develop the plan as well as documentation of the meetings, discussions and events that were involved in the planning process.

#### **Annex A: Resources**

This section provides a list of resources for Regional, County, State, and Federal agencies and organizations that may be referenced directly and indirectly within the Las Virgenes-Malibu COG Hazard Mitigation Plan.

#### **Annex B: Local Hazard Mitigation Plan Review Crosswalk**

This section includes the Local Hazard Mitigation Plan Review Crosswalk for California Local Governments. The Crosswalk provides a quick reference to key sections of the plan.

#### **Annex C: Disaster Preparedness Risk Survey**

This section includes the survey by which community members rated their preparedness for disasters and risk ratings of the identified hazards.

#### **Annex D: Steering Committee/Planning Group Hazard Rating Survey**

This survey was provided to the Steering Committee and Planning Group to rate the Las Virgenes-Malibu COG Region hazards.

#### **Annex E: Planning and Public Involvement**

This section provides a description of public involvement activities including meetings and other public outreach efforts related to the Hazards Mitigation Plan update. This section also provides

#### **Annex F: Flood Insurance Rate Maps**

This section provides Flood Insurance Rate Maps (FIRM) for selected areas within the LVMCOG area. These maps depict areas subject to flooding and are used for planning purposes.

#### **Annex G: Malibu Flood Mitigation Plan**

This section includes the Hazard Mitigation Plan prepared for the City of Malibu in May of 2001 (and still in use) by David Evens and Associates.

#### **Annex H: Plan Approval Documentation**

This section provides a copy of Plan Approval documents related to the Las Virgenes- Malibu COG Hazard Mitigation Plan.

## SECTION 2. COMMUNITY PROFILE

### Introduction

Hazards impact the region’s citizens, property, environment, and economy. In addition to the potential loss of life and property, residents and businesses are subject to the financial and emotional costs of recovering from disasters.

Identifying population groups and the risks posed by hazards provides the basis for implementing strategies to reduce potential impacts; thereby protecting the lives and property of citizens and communities. The result is the development and implementation of strategies, coordination of resources, and increased public awareness that will reduce risk and prevent loss from future hazard events.

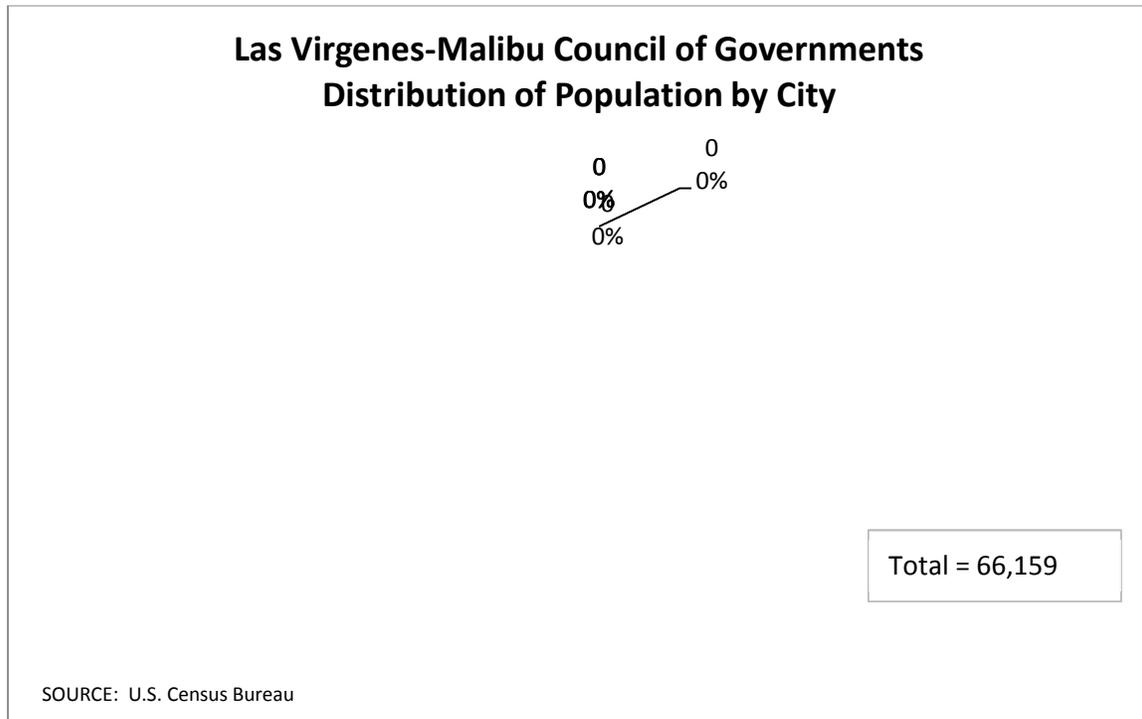
This section of the Hazard Mitigation Plan provides an overview of the Las Virgenes-Malibu Council of Governments (LVMCOG) region as well as the individual cities that comprise the LVMCOG. City specific profiles contained within this section provide brief summaries of the vulnerable populations, structures, and economic base of each community.

### Population

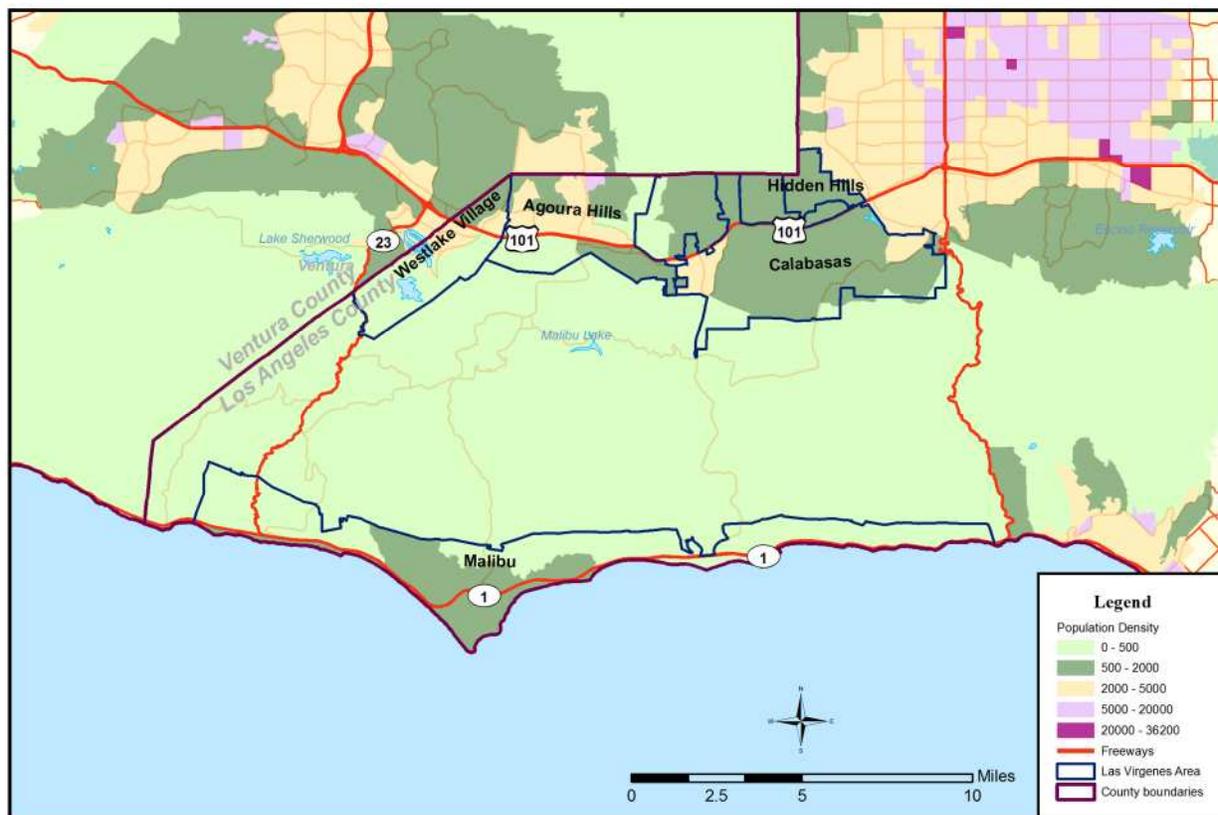
According to 2010 Census data, the population of the five cities in the Las Virgenes-Malibu Council of Governments region totaled 66,159. Within the region, Calabasas represents the largest population closely followed by Agoura Hills. Calabasas also represented the fastest growth area (15.1%) outpacing Los Angeles County (3.1%) through the period from 2000 to 2010. The population levels of the other cities within the area were relatively stable during the past ten years. Due to terrain restrictions, designated parks and reserves, and local planning/zoning requirements, local populations are centered along the Ventura 101 Freeway and Pacific Coast Highway (see Population Density Map on the following page).

<b>Las Virgenes-Malibu Population Data</b>				
<b>Location</b>	<b>2010 Population</b>	<b>% of Los Angeles County</b>	<b>2000 Population</b>	<b>% Change from 2000 to 2010</b>
Agoura Hills	20,330	0.21%	20,537	-1.0%
Calabasas	23,058	0.23%	20,033	15.1%
Hidden Hills	1,856	0.02%	1,875	-1.0%
Malibu	12,645	0.13%	12,575	0.6%
Westlake Village	8,270	0.08%	8,368	-1.2%
LVMCOG	66,159	0.67%	63,388	4.4%
Los Angeles County	9,818,605	100.00%	9,519,338	3.1%

**Table 2: Las Virgenes-Malibu 2010 Population Data**



**Figure 2: LVMCOG Population Distribution by City**

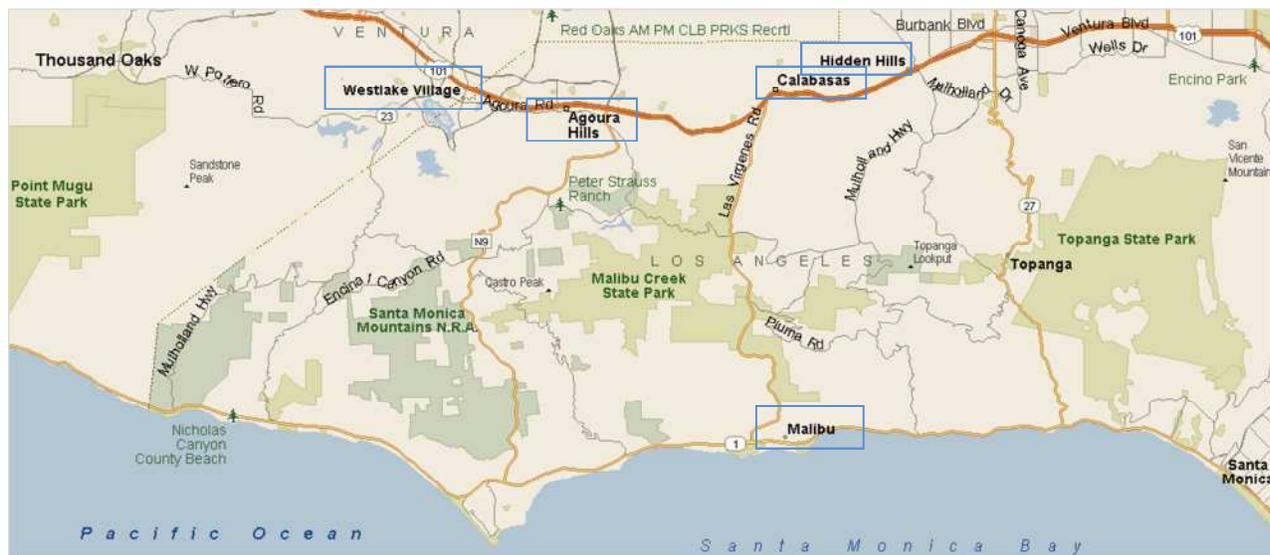


**Map 4: Population Density per Square Mile**

## Geography and the Environment

The Las Virgenes-Malibu region is comprised of approximately 129.62 square miles (Source: Los Angeles Almanac). The area is partially urbanized and includes populated areas and business centers (particularly along major transportation routes). Nevertheless, large portions of the area are undeveloped wild land. In addition, the region is home to the Santa Monica National Recreation Area (154,095 acres) and Malibu Creek State Park which is comprised of: Liberty Canyon (730 acres), Udell Gorge (300 acres), and Kaslow Preserve (1,920 acres).

The geography includes mountainous terrain as well as small rivers and seasonal waterways (depending on rainfall). The climate is Mediterranean characterized by warm to hot, dry summers and mild to cool, wet winters. Summer temperatures in the cities of Agoura Hills, Calabasas, Hidden Hills and Westlake Village can reach into the high 90's. Malibu lies along the Pacific coast and is bordered to its north by the Santa Monica Mountains. As a result, average temperatures in Malibu are approximately 10 degrees cooler in the summer than the other cities within the LVMCOG (see **CLIMATE** section for additional details).



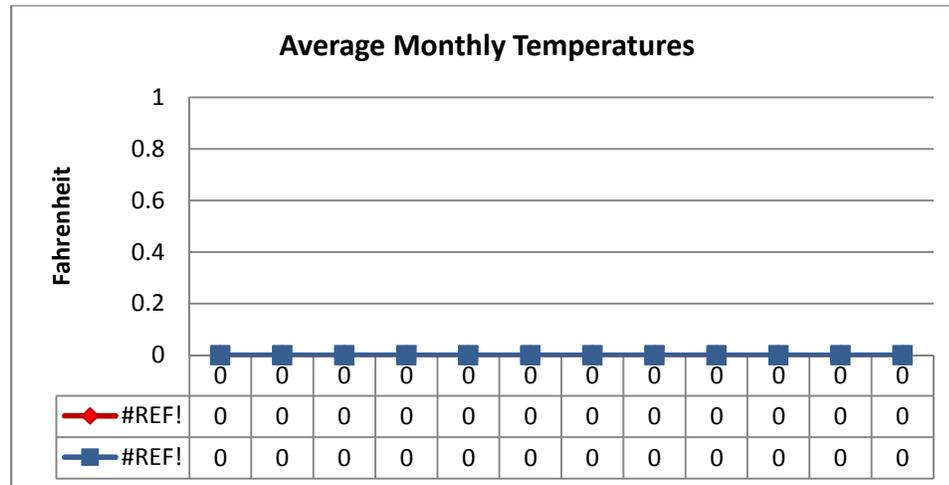
**Map 5: Las Virgenes-Malibu Council of Governments Region Map**

The region's transportation system consists of a grid of local streets, arterials, and other lesser thoroughfares. Regional access to Agoura Hills, Calabasas, Hidden Hills, and Westlake Village area is provided primarily through the Ventura Freeway (US Highway 101). Access to Malibu is primarily via Pacific Coast Highway (California State Route 1 aka Highway 1) and through local roads that provide connector routes to the inland cities of the LVMCOG. Connector routes include Las Virgenes Road/Malibu Canyon Road, Topanga Canyon Boulevard (SR 27), Decker Canyon Road (SR 23), Mulholland Highway, Latigo Canyon Road, and Kanan Dume Road. These roads traverse the mountains and designated wilderness areas such as Malibu State Park, Topanga State Park, and the Santa Monica Mountains National Recreation Area.

## Climate

### Temperature

The Las Virgenes-Malibu region is characterized by warm to hot dry summers and mild to cool wet winters typical of a Mediterranean climate.



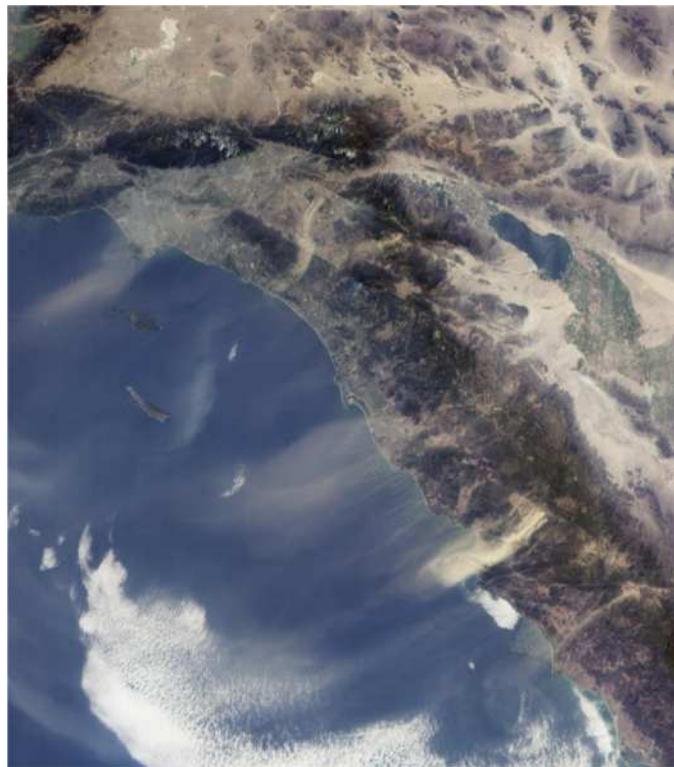
**Figure 3: Average Temperature by Month**

The average high in the summer ranges from the mid to upper 90 degrees Fahrenheit. Average lows in the winter months range from the upper 30 to low 40 degrees Fahrenheit.

August tends to be the hottest month and December tends to be the coldest month. However it should be noted that temperatures can vary over a wide range.

For example, Santa Ana winds typically occur in late fall and early winter. The Santa Ana winds are characterized by strong dry offshore winds originating from the Great Basin and Upper Mojave Desert.

Wind temperatures can range from extremely hot to cold. Damage can occur directly from the high wind speeds generated or from the secondary effects of very low humidity – which increases the threat of wildfires.

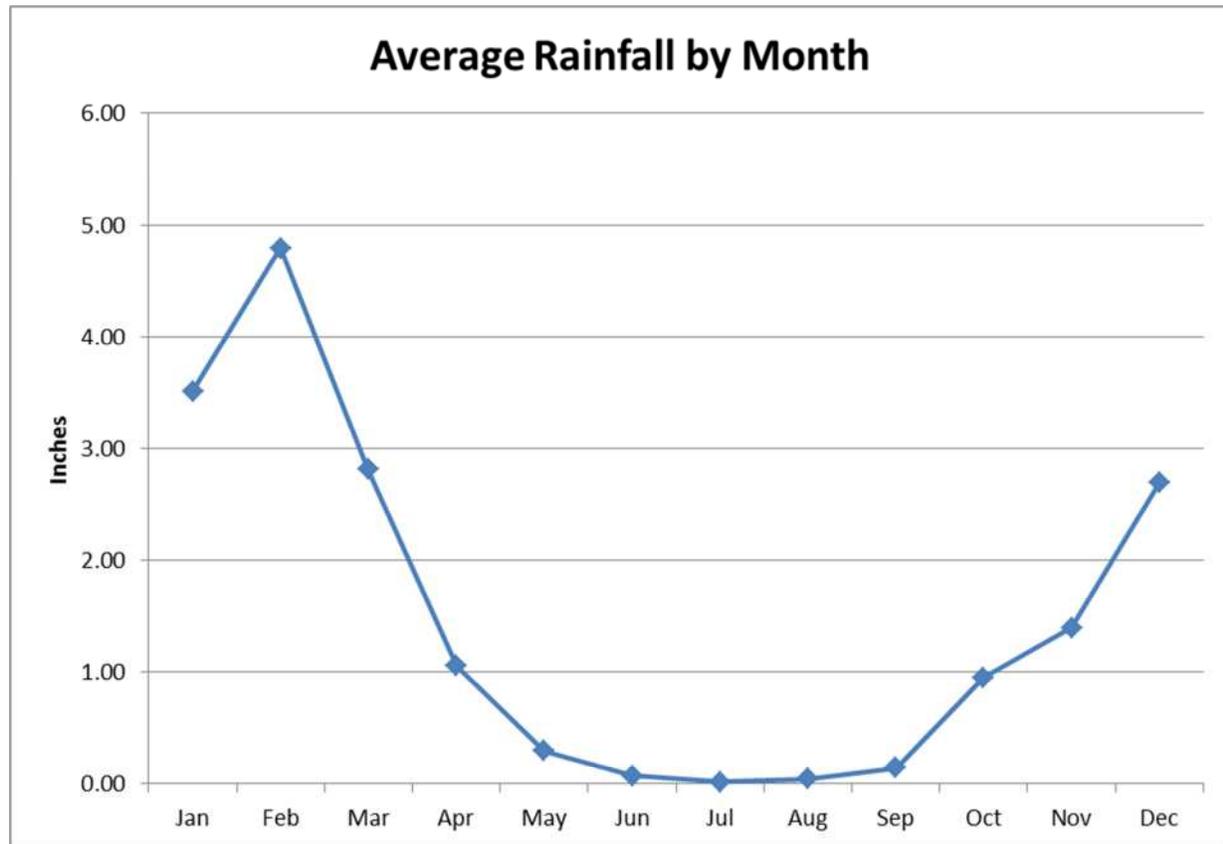


**Figure 4: Santa Ana Winds (Feb 2002)**

SOURCE: NASA/JPL-Caltech)

## Rainfall

Rainfall in the LVMCOG region averages nearly 18 inches per year. However the term “average rainfall” is misleading because over the recorded history of rainfall in the region, rainfall amounts have ranged from no rain at all in some years to well over normal averages in very wet years. Furthermore, actual rainfall in Southern California tends to fall in large amounts during sporadic and often heavy storms rather than in consistent amounts throughout the year.



**Figure 5: Average Rainfall by Month**

## El Niño and La Niña

Periodically, Southern California and the LVMCOG region are subject to the effects of El Niño or La Niña conditions:

- El Niño is characterized by unusually warm ocean temperatures in the Equatorial Pacific resulting in increased rainfall in the southern tier of the U.S. El Niño conditions can result in flooding, mudslides, and traffic disruptions in the LVMCOG region.
- La Niña is characterized by unusually cold ocean temperatures in the Equatorial Pacific resulting in decreased rainfall in the southern tier of the U.S. La Niña conditions can result in drought and increased danger from wildfires.

## Law Enforcement and Fire Resources

The Las Virgenes-Malibu COG region is part of Los Angeles County. The five cities contract for essential services such as law enforcement with the Los Angeles County Sheriff and fire resources through the Consolidated Fire Protection District of Los Angeles County.

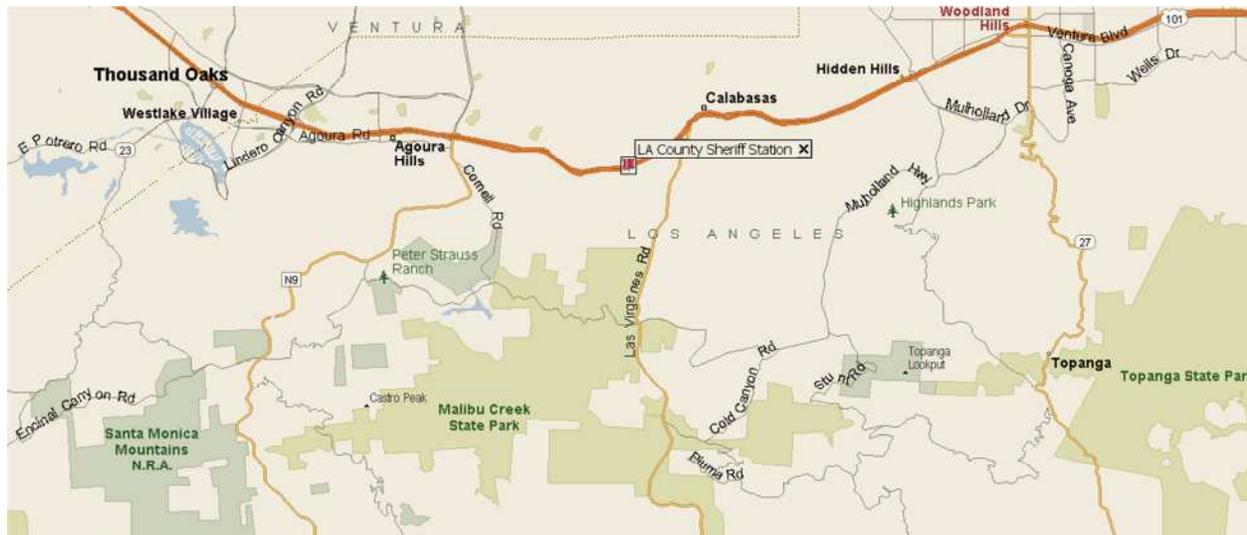
### Los Angeles County Sheriff's Department

The cities within the Las Virgenes-Malibu COG individually contract their law enforcement services with the Los Angeles County Sheriff's Department. The Malibu/Lost Hills Station provides immediate access and is located at 27050 Agoura Road, Calabasas, CA 91301.

This station serves the western portion of Los Angeles County, which is a blend of semi-urban, residential, and rural areas, encompassing both mountain and beach topographies.



Figure 6: LASD Malibu/Lost Hills Station



Map 6: LASD Malibu/Lost Hills Station Location

The cities served by the Malibu/Lost Hills Station include Agoura Hills, Calabasas, Hidden Hills, Malibu, and Westlake Village as well as the unincorporated communities<sup>1</sup> of Chatsworth Lake Manor, Malibu Lake, Topanga, and West Hills. The station's jurisdiction is sectioned into 27 areas.

The Malibu/Lost Hills Station has comprehensive Fire, Flood and Earthquake Operation Plans. The plans identify evacuation shelters, secondary evacuation shelters, command post sites, multi-purpose staging areas, and alternate traffics routes.

<sup>1</sup> Information obtained from the Los Angeles County Sheriff's Department

Furthermore, the Malibu/Lost Hills Station has implemented a process for prioritizing critical facilities assessments. This process ranks locations in the following order:

1. “A” priorities must be checked immediately
2. “B” priorities must be checked immediately if children are present, otherwise as time permits
3. “C” priorities must be checked as time permits

Critical facilities identified by the Malibu/Lost Hills Station are noted in **Section 3**.

### Malibu Search & Rescue Team

The Malibu Search & Rescue Team (SAR) was founded in 1977 and is an all-volunteer organization comprised of Los Angeles County Sheriff's Department Reserve Deputy Sheriffs and a select group of Civilian Volunteer Specialists and Incident Support Personnel. The Malibu SAR Team is a unit of the Los Angeles County Sheriff's Department and a member of the California region of the Mountain Rescue Association.

The Malibu SAR jurisdiction covers 187 square miles of the Santa Monica Mountains from the Los Angeles/Ventura County line to Pacific Palisades, the east face of the Santa Susana Mountains and the contract cities of Agoura Hills, Calabasas, Hidden Hills, Malibu, and Westlake Village. The Malibu SAR will also travel anywhere in Los Angeles County to assist other LASD teams. Furthermore, the team will respond to other states or other country if requested to do so through the California Emergency Management Agency (Cal EMA). The Los Angeles County Sheriff's Department provides the team with rescue vehicles and rescue operations are conducted under the guidance of the Los Angeles County Sheriff.

### Los Angeles County Fire Department

Agoura Hills, Calabasas, Hidden Hills, Malibu and Westlake Village contract fire services with the Los Angeles County Fire Department. The Las Virgenes-Malibu COG is located in Division VII – Central Region of the Los Angeles County Fire Department's Regional Plan Divisions. Battalion 5 of the Los Angeles County Fire Department is assigned to directly serve the Las Virgenes-Malibu region. The local LA County Fire Department headquarters are located at 3970 Carbon Canyon Rd., Malibu 90265.

BATTALION 5	
Fire Station #65	4206 N Cornell Rd, Agoura, 91301
Fire Station #67	25801 Piuma Rd, Calabasas, 91302
Fire Station #68	24130 Calabasas Rd, Calabasas, 91302
Fire Station #69	401 S Topanga Cyn Blvd, Topanga, 90290
Fire Station #70 - Headquarters	3970 Carbon Cyn Rd, Malibu, 90265
Fire Station #71	28722 W Pacific Coast Hwy, Malibu, 90265
Fire Station #72	1832 Decker Canyon Rd, Malibu, 90265
Fire Station #88	23720 W Malibu Rd, Malibu, 90265
Fire Station #89	29575 Canwood St., Agoura Hills, 91301
Fire Station #99	32550 Pacific Coast Hwy, Malibu, 90265
Fire Station #125	5215 N Las Virgenes Rd, Calabasas, 91302
Fire Station #144	31981 Foxfield Dr, Westlake Village, 91361

### *Fire Station #89*

The Los Angeles County Fire Department's first fire station in Agoura Hills, Fire Station 89, opened in June of 2006. This fire station was a joint venture between the County of Los Angeles and the City of Agoura Hills and is an example of interagency efforts working for better emergency management.

Fire Station 89 is located on a 3 acre lot at 29575 Canwood Street, a quarter mile west of Kanan Road. The state of the art 12,000 sq. ft. building houses one engine company, a paramedic squad, Battalion Chief's office, training facilities and dormitory quarters for 10 fire and emergency personnel. The cost of this new fire station was approximately \$4 million and was paid for through developer fees. The new fire station improves coverage and response times for not only Agoura Hills, but also the entire Las Virgenes-Malibu Region.



**Figure 7: Fire Station #89**

## Multi-Regional Collaboration

### Agoura Hills / Calabasas Community Center

The cities in the Las Virgenes-Malibu COG often combine resources and work together to create more productive communities. One such example was the joint venture of the cities of Calabasas and Agoura Hills to build the Agoura Hills / Calabasas Community Center. This is a state-of-the-art recreational facility that offers a variety of recreational, social, cultural, and educational programs and activities to meet the needs of the surrounding communities. This endeavor is a prime example of how communities can come together in order to offer residents a more livable community. Furthermore, in the event of an emergency, facilities such as the Agoura Hills / Calabasas Community Center are valuable resources that can be used to support the local population.



**Figure 8: Agoura Hills / Calabasas Community Center**

### Community Emergency Response Training

The cities in the Las Virgenes-Malibu COG make available Community Emergency Response Training (CERT) programs to their residents as well as residents of neighboring communities. This CERT effort facilitates the concept of joint cooperation to create safer communities.

### Specific Needs Awareness Planning (SNAP)

The cities in the Las Virgenes-Malibu COG participate in the Los Angeles County Office of Emergency Management (OEM) Specific Needs Awareness Planning (S.N.A.P.) voluntary disaster registry. The S.N.A.P. registry is an Internet-based system that allows residents to provide information to public safety officials about their access or functional needs. Examples include requirements relating to physical, medical, sensory, cognitive or age-related conditions. S.N.A.P. does not guarantee priority response to registrants. It assists emergency response officials in planning and responding to the requirements of people with access and functional needs during a disaster by integrating database and mapping technology together.



**Figure 9: SNAP Program**

## OARRS

The cities in the Las Virgenes-Malibu COG participate in the Los Angeles County Office of Emergency Management (OEM) Operational Area Response and Recovery System (OARRS) which is designed to provide:

- Remote system access in the Operational Area;
- Interface with the State of California's Response Information Management System;
- Interface with the County's Enterprise Geographic Information System;
- Facilitation of emergency response activities, multi-jurisdictional and multidisciplinary response and recovery coordination, and information flow;
- Support for multi-disciplinary and multi-jurisdiction plans and exercises;
- System of communication and information management that links County departments, cities, schools, and special districts;
- Custom reporting; and
- Secure emergency information and data sharing.

## Connect-CTY

All cities in the Las Virgenes-Malibu COG have implemented Connect-CTY (Blackboard Connect® by Blackboard Inc.), a service that allows authorized civic leaders to create and rapidly disseminate emergency messages to every telephone number stored in the notification database.

## Details by City

The remainder of this section provides detailed descriptions of each of the five cities within the Las Virgenes-Malibu Council of Governments. The information included outlines each city and provides a basic history, location, climate and topographical information, demographics, social makeup, employment figures, major employers, and housing data. An understanding of each of these categories is important for addressing the needs of the local community.

Cities are displayed in alphabetical order.

- Agoura Hills
- Calabasas
- Hidden Hills
- Malibu
- Westlake Village

## Agoura Hills

Agoura Hills is located in the foothills of the Santa Monica Mountains on the western edge of Los Angeles County in the Conejo Valley. Agoura Hills encompasses 7.79 square miles and straddles the Ventura Freeway approximately 36 miles west of downtown Los Angeles. In the 1950's the availability of a reliable water supply caused the area to transform from a semi-rural ranching community to greater residential and commercial development.



Today, Agoura Hills is characterized by rolling hills and a blend of semi-rural and suburban development. The total population of Agoura Hills is comprised of approximately 20,330 people (2010 U.S. Census).

### Brief History

The area around what is today the City of Agoura Hills was a popular resting place along the Camino Real, the original road connecting the Spanish missions from San Diego to San Francisco. Ranching was the area's dominant industry from the arrival of the Spanish in the late 18<sup>th</sup> century until the early 20<sup>th</sup> century. In the 1920's Paramount Studios purchased a portion of the Rancho Las Virgenes, just south of what is now the City of Agoura Hills and established a film studio. In the late 1920's a group of residents asked to have a permanent post office established in the area, and the name "Agoura" was given.

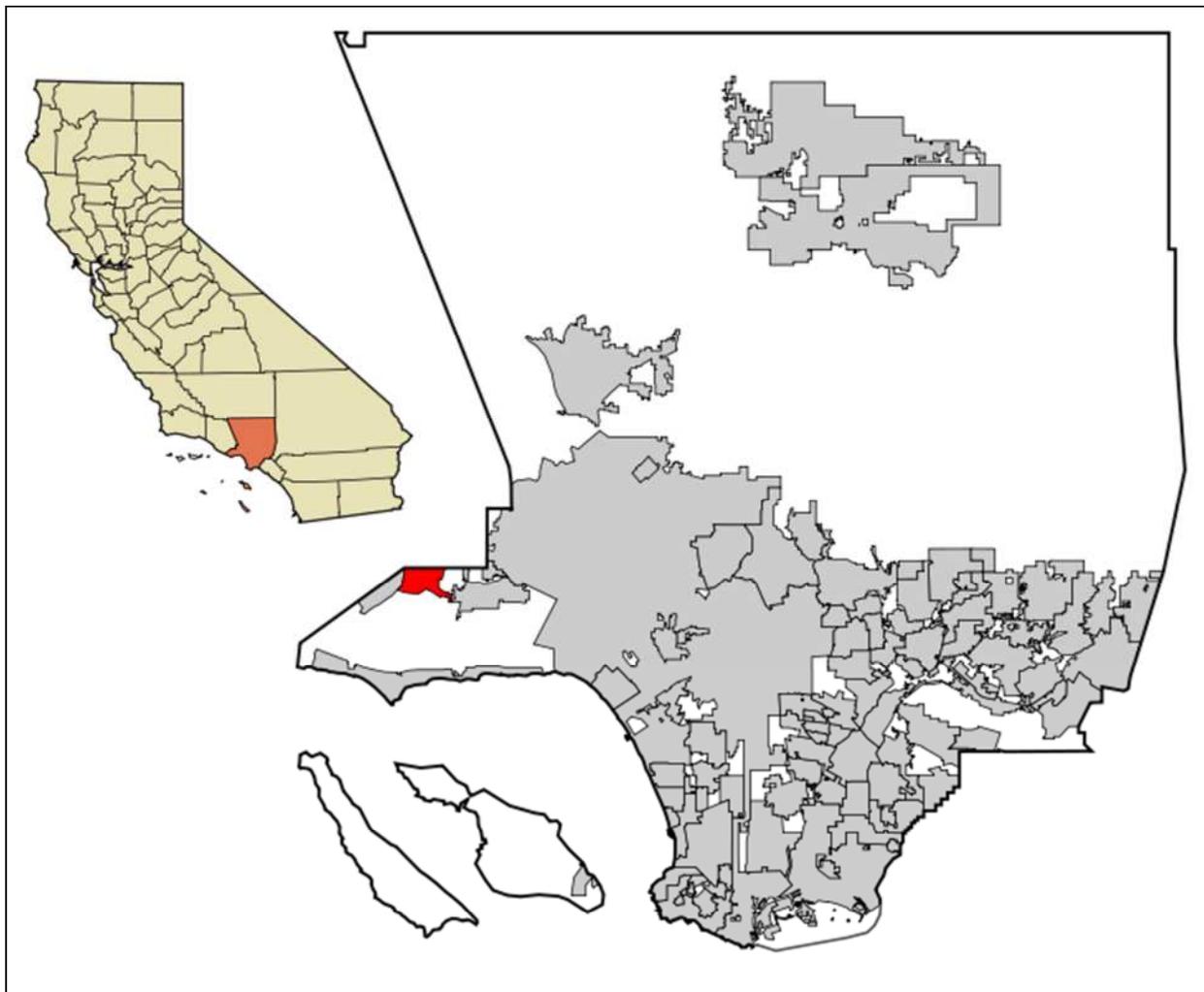
Growth and development was slow due in part to a lack of a significant water source. In the late 1950's, the Las Virgenes Municipal Water District was established, and reliable water sources made the Agoura area more attractive for families and businesses. Concurrently with the availability of water, further growth occurred when the local highway became part of the Ventura Freeway. During the late 1960's and the 1970's, expansion continued as large housing tracts and shopping areas, as well as schools, developed. In 1982, residents voted in favor of cityhood, and on December 8, 1982 Agoura Hills became the 83<sup>rd</sup> city in Los Angeles County.

### Climate /Topography

The climate in Agoura Hills is characterized by mild winters with temperatures ranging from the low 40's to the high 60's, and warm summers with temperatures ranging from the low 60's to the high 90's. Average annual rainfall is 19.5 inches with the greatest portion of precipitation occurring in the winter months.

Agoura Hills is located in the eastern Conejo Valley between the Simi Hills to the north and the Santa Monica Mountains to the south. The City ranges in altitude from 936 feet to 2,036 feet above sea level.

General Coordinates	
Latitude	34°8'42''North
Longitude	118°46'40''West



Map 7: Agoura Hills Location Map

### Economic Activity

Economic activity is one indicator of the potential losses that may be incurred in the event of a disaster. The following tables list the principal employers, property tax payers, and taxable sales in Agoura Hills.

#### *Agoura Hills Principal Employers*

Company	Industry	Employees	Percent of Total City Employment
Bank of America	Finance	860	8.06%
Las Virgenes Unified School District*	Government	487	4.57%
THQ Inc.	Publishing	425	3.98%
IBM Corporation	Technology	220	2.06%
Teradyne	Manufacturing	197	1.85%
Touch Commerce	Internet	197	1.85%
Employers Direct Insurance	Insurance	150	1.41%
Renaissance Hotel	Hotel	150	1.41%
Farmers Financial Solutions	Insurance	150	1.41%
Wood Ranch Barbecue	Restaurant	130	1.22%
<b>Total</b>		<b>2,966</b>	<b>27.81%</b>
<b>Total City Employment</b>		<b>10,665</b>	<b>100.00%</b>

*Source Agoura Hills 2010 Comprehensive Annual Financial Report and SCAG Profile of the City of Agoura Hills, May 2011*

*\*Employee count is based on Agoura Hills school sites only*

**Table 3: Agoura Hills Principal Employers**

#### *Agoura Hills Principal Property Tax Payers*

Company	Taxable Assessed Value	Percent of Total City Assessed Value
Tishman Speyer Archstone Smith Oak Creek	\$19,930,130	2.61%
Tishman Speyer Archstone Smith Agoura Hills	\$43,444,338	1.11%
RBD Agoura Hills LLC	\$34,668,134	0.89%
Bank of America	\$32,798,273	0.84%
Teradyne Inc.	\$18,921,527	0.49%
MEF Realty LLC	\$27,810,300	0.71%
Whizin Market Square LLC	\$27,258,480	0.70%
Apple Seven Hospitality Ownership Inc.	\$25,614,647	0.66%
FW CA Twin Oaks Shopping Center LLC	\$24,311,398	0.62%
Agoura North Jacobsen Holdings LLC	\$23,562,317	0.60%
<b>Total</b>	<b>\$360,009,344</b>	<b>9.23%</b>

*Source Agoura Hills 2010 Comprehensive Annual Financial Report*

**Table 4: Agoura Hills Principal Property Tax Payers**

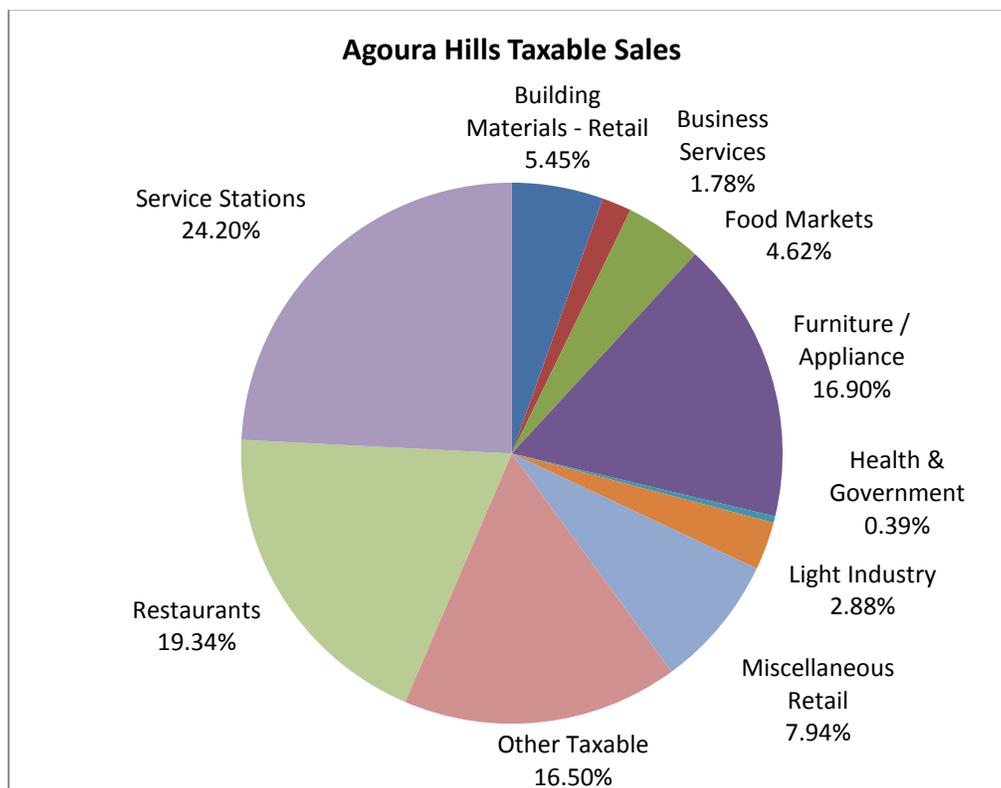
**Agoura Hills Taxable Sales (2009)**

(Data for 2010 not available)

Category	Taxable Sales (thousands)	Percent of Total
Building Materials - Retail	\$138	5.45%
Business Services	\$45	1.78%
Food Markets	\$117	4.62%
Furniture / Appliance	\$428	16.90%
Health & Government	\$10	0.39%
Light Industry	\$73	2.88%
Miscellaneous Retail	\$201	7.94%
Other Taxable	\$418	16.50%
Restaurants	\$490	19.34%
Service Stations	\$613	24.20%
<b>Total</b>	<b>\$2,533</b>	<b>100.00%</b>

Source Agoura Hills 2010 Comprehensive Annual Financial Report

**Table 5: Agoura Hills Taxable Sales**



**Figure 10: Agoura Hills Taxable Sales Percentage by Category**

### Population and Demographics

The following tables summarize the population and demographic groups at risk from a disaster in Agoura Hills.

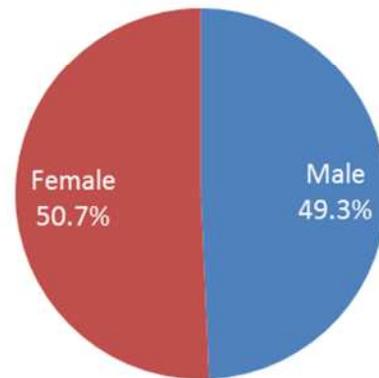
#### Sex and Age Distribution

Demographic Estimates		
Sex and Age	Estimate	Percent
<b>Total Population</b>	<b>20,330</b>	<b>100.0%</b>
Male	10,021	49.3%
Female	10,309	50.7%
Under 5 years	896	4.4%
5 to 9 years	1,276	6.3%
10 to 14 years	1,595	7.8%
15 to 19 years	1,656	8.1%
20 to 24 years	1,063	5.2%
25 to 29 years	927	4.6%
30 to 34 years	925	4.5%
35 to 39 years	1,127	5.5%
40 to 44 years	1,486	7.3%
45 to 49 years	1,923	9.5%
50 to 54 years	1,929	9.5%
55 to 59 years	1,820	9.0%
60 to 64 years	1,417	7.0%
65 to 69 years	891	4.4%
70 to 74 years	503	2.5%
75 to 79 years	327	1.6%
80 to 84 years	250	1.2%
85 years and over	319	1.6%
Median age (years)	42.4	

Source U.S. Census Bureau 2010 Census

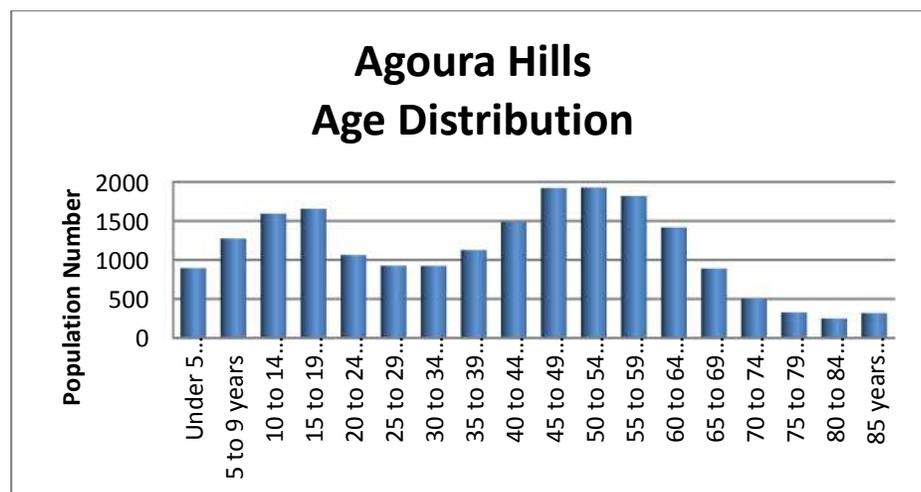
**Table 6: Agoura Hills Sex and Age Demographics**

**Agoura Hills  
Female to Male Distribution**



**Figure 11: Agoura Hills Female to Male Distribution**

The average age of residents in Agoura Hills is 42.4 with females (50.7%) slightly outnumbering males (49.3%). Mitigation planning must consider the unique needs of population groups, for example those under 15 years of age and those over 70 years of age.



**Figure 12: Agoura Hills Age Distribution**

**Race Composition**

One aspect of mitigation planning is the need to address the language (communications) needs of local populations. This includes the ability to distribute information and provide notification in the event of a regional emergency. For Agoura Hills, an estimated 21% of the population speaks languages other than English (including English and another language or non-English only) with more than a quarter of these speaking English “less than very well”.

Race	Population	Percent of Total
<b>Total Population</b>	<b>20,330</b>	<b>100.0%</b>
White Alone	15,971	78.6%
Hispanic or Latino (of any race)	1,936	9.5%
Black or African American alone	256	1.3%
American Indian and Alaska Native alone	26	0.1%
Asian alone	1,503	7.4%
Native Hawaiian and Other Pacific Islander Alone	22	0.1%
Some other race alone	51	0.3%
Two or more races	565	2.8%

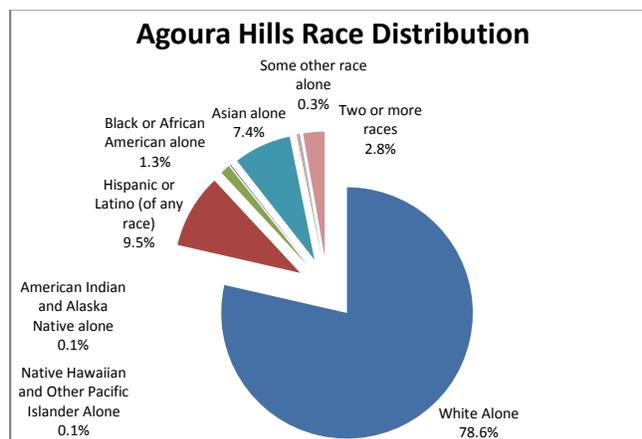
US Census Bureau 2010 Census

**Table 7: Agoura Hills Race Composition**

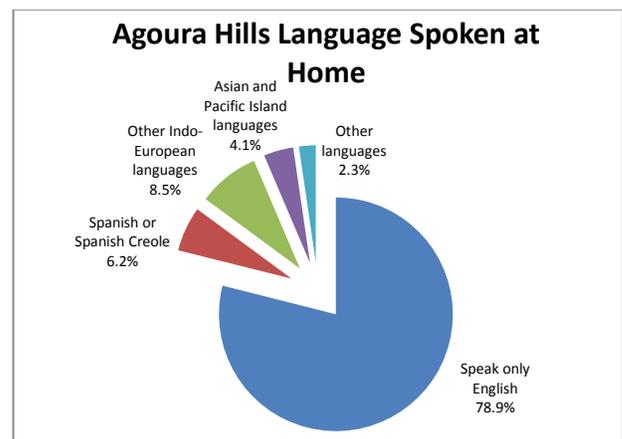
**Languages Spoken at Home**

Subject	Total Estimate	Speak English "very well" Estimate	Speak English less than "very well" Estimate
Population 5 years and over	19,555	94.5%	5.5%
Speak only English	79.0%	(X)	(X)
Speak a language other than English	21.0%	73.8%	26.2%
Spanish or Spanish Creole	6.2%	71.1%	28.9%
Other Indo-European languages	8.5%	83.3%	16.7%
Asian and Pacific Island languages	4.1%	56.7%	43.3%
Other languages	2.3%	76.6%	23.4%

**Table 8: Agoura Hills Languages Spoken at Home**



**Figure 13: Agoura Hills Race Distribution**



**Figure 14: Agoura Hills Languages Spoken at Home**

**Income Distribution**

Household income is a factor for mitigation planning since population groups in lower income ranges are less able to cope with the impact of disasters.

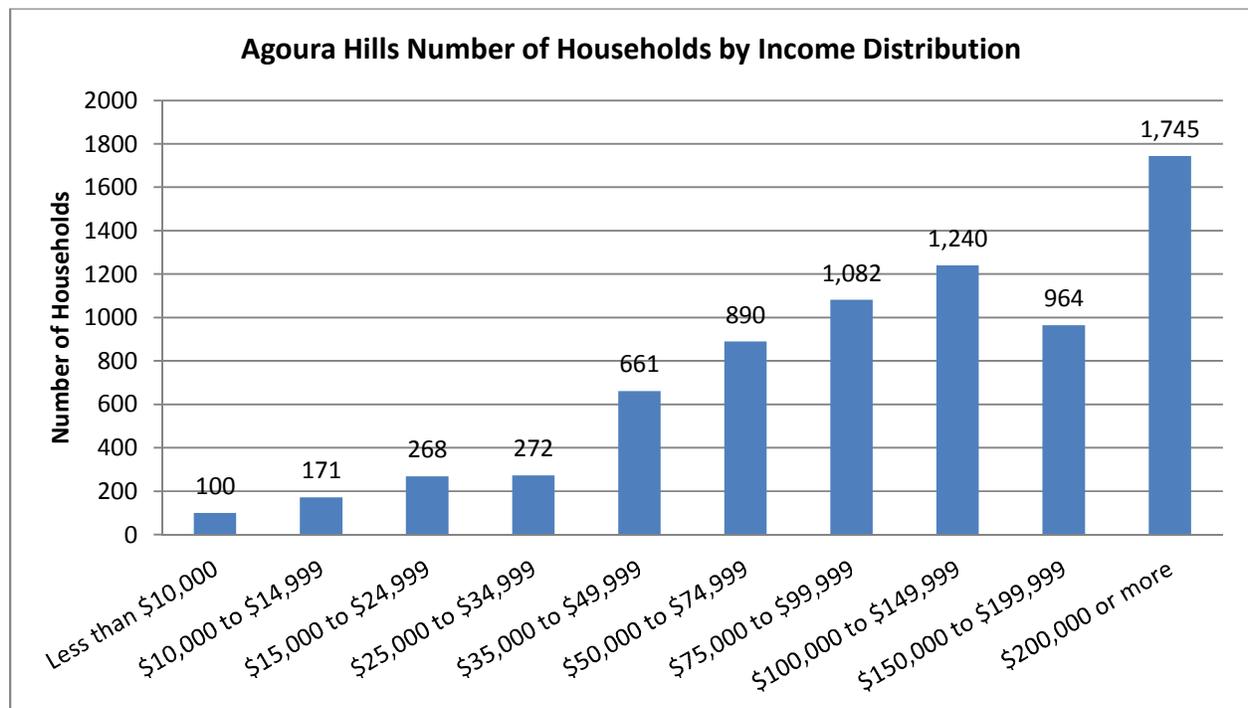
Furthermore, the availability of household funds can have a direct impact on the level of individual and family hazard mitigation activities and emergency preparedness.

In Agoura Hills, while the mean household income is over \$146,000, there are a limited number of households with incomes less than \$25,000, near the U.S. poverty level of \$22,350 for a family of four as defined by the 2011 HHS Poverty Guidelines, by the U.S. Department of Health & Human Services.

<b>Income and Benefits (in 2009 Inflation-Adjusted Dollars)</b>		
	<b>Estimate</b>	<b>Percent</b>
<b>Total Household Income</b>	<b>7,393</b>	<b>100.0%</b>
Less than \$10,000	100	1.4%
\$10,000 to \$14,999	171	2.3%
\$15,000 to \$24,999	268	3.6%
\$25,000 to \$34,999	272	3.7%
\$35,000 to \$49,999	661	8.9%
\$50,000 to \$74,999	890	12.0%
\$75,000 to \$99,999	1,082	14.6%
\$100,000 to \$149,999	1,240	16.8%
\$150,000 to \$199,999	964	13.0%
\$200,000 or more	1,745	23.6%
Median household income (dollars)	106,886	(X)
Mean household income (dollars)	146,570	(X)

*Source U.S. Census Bureau 2006-2010 American Community Survey Estimate*

**Table 9: Agoura Hills Income and Benefits (2009 Inflation Adjusted Dollars)**



**Figure 15: Agoura Hills Income Distribution**

## Land Use

Basic land use patterns are well established in the City of Agoura Hills. Residential neighborhoods are fully developed and there are limited opportunities for infill development remaining. Agoura Hills also contains a number of commercial zones. The city's main shopping areas are the Twin Oaks Shopping Center and the Agoura Meadows Shopping Center. Agoura Hills also has a number of business centers which include the following:

- Agoura City Mall
- Agoura Hills Town Center
- Agoura Pointe
- Agoura Village
- Kanan Plaza
- Kanan Pointe
- Lake Lindero Shopping Center
- Mann Theater Complex
- Shoppes at Oak Creek
- Whizin Shopping Center

Regional access to Agoura Hills is provided by U.S. Highway 101, which runs east/west through the center of Agoura Hills dividing the town in half. Local access within the City is provided primarily by Kanan Road and Reyes Adobe Road in the north/south directions; Agoura Road and Thousand Oaks Boulevard in the east/west directions. City owned streets run 64 miles.

## Housing Characteristics

The following housing statistics provide a summary of the numbers and types of housing units that are at risk if a disaster were to occur in Agoura Hills. Housing data includes: Housing Occupancy, Change from 2000 to 2010, Number of Structures Built by Year, Home Values, and Home Value Distribution. In Agoura Hills there has been a significant increase in the number of large units (10 or more) since 2000.

Housing Occupancy	Estimate	Percent
<b>Total Housing Units</b>	7,681	100.0%
Occupied housing units	7,393	96.3%
Vacant housing units	288	3.7%

Source U.S. Census Bureau 2006-2010 American Community Survey

**Table 10: Agoura Hills Housing Occupancy**

Units In Structure	2010		2000		Change	
	Estimated Number	Percent of Units	Number	Percent of Units	Difference 2010-2000	Percent Change
<b>Total Housing Units</b>	<b>7,681</b>	<b>100.0%</b>	<b>6,955</b>	<b>100%</b>	<b>726</b>	<b>10.4%</b>
1-unit, detached	5,390	70.2%	5,191	74.6%	199	3.8%
1-unit, attached	1,032	13.4%	974	14.0%	58	6.0%
2 units	12	0.2%	7	0.1%	5	71.4%
3 or 4 units	161	2.1%	168	2.4%	-7	-4.2%
5 to 9 units	124	1.6%	126	1.8%	-2	-1.6%
10 to 19 units	359	4.7%	140	2.0%	219	156.4%
20 or more units	581	7.6%	349	5.0%	232	66.5%
Mobile home	22	0.3%	0	0.0%	22	N/A
Boat, RV, van, etc.	0	0.0%	0	0.0%	0	0.0%

Source: US Census Bureau 2006 - 2010 ACS and US Census Bureau 2000 Census

**Table 11: Agoura Hills Units in Structure Change from 2000 to 2010**

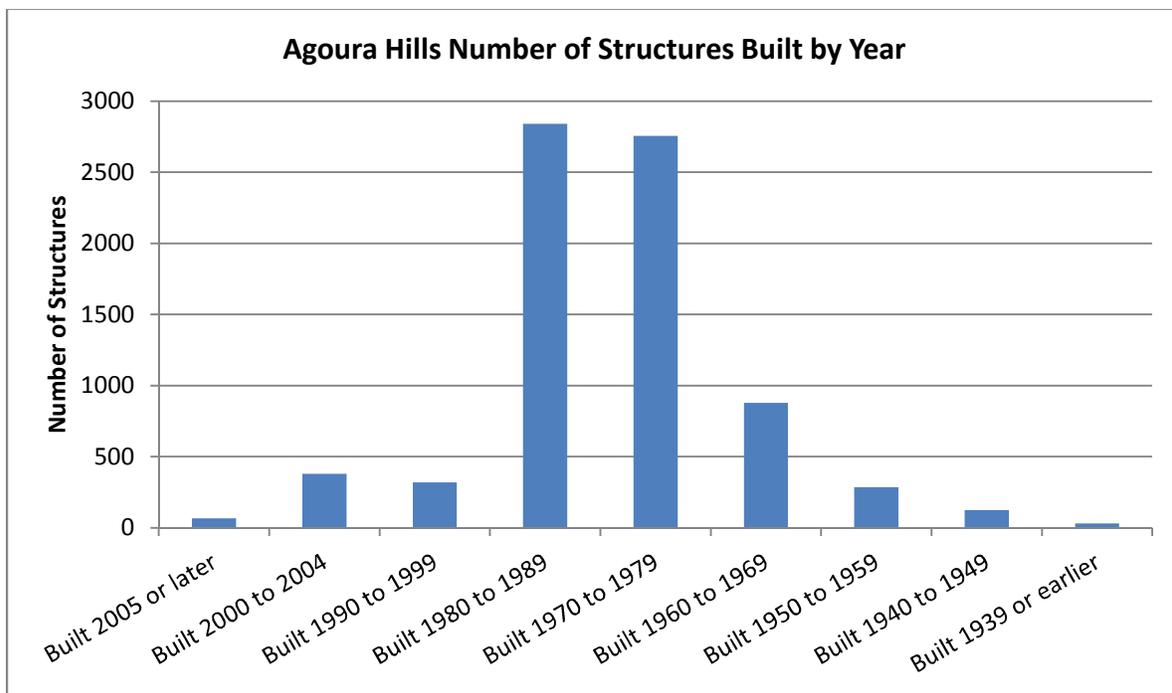
In terms of risk and disaster mitigation, older structures that have not been retrofitted or otherwise improved may be more susceptible to damage or destruction due to age and the fact that older building codes were less stringent than those required for newer structures. As a result the inventory of older structures is a consideration when developing mitigation plans.

In Agoura Hills, 90% of structures (6,915) were built prior to 1990 and 53.1% (4,075) before 1980.

Year Structure Built	Estimate	Percent
Total housing units	7,681	100.0%
Built 2005 or later	67	0.9%
Built 2000 to 2004	379	4.9%
Built 1990 to 1999	320	4.2%
Built 1980 to 1989	2,840	37.0%
Built 1970 to 1979	2,756	35.9%
Built 1960 to 1969	879	11.4%
Built 1950 to 1959	286	3.7%
Built 1940 to 1949	124	1.6%
Built 1939 or earlier	30	0.4%

Source: U.S. Census Bureau 2006-2010 American Community Survey

**Table 12: Year Structures Built in Agoura Hills**



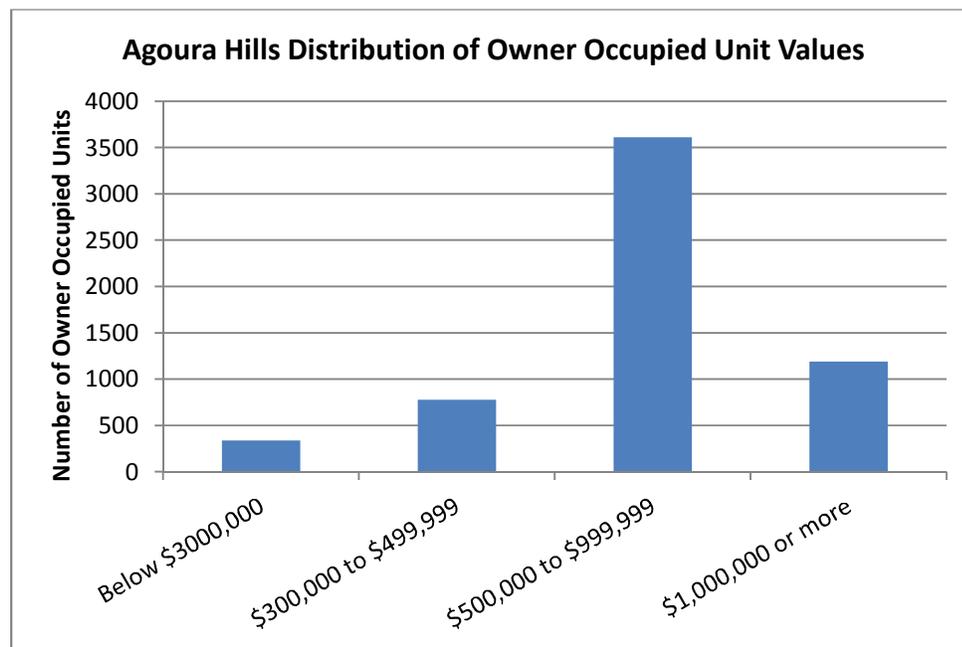
**Figure 16: Agoura Hills Number of Structures Built by Year**

Home values are an important consideration when evaluating the potential dollar loss due to disasters. These values can also be used to assess the cost/benefit of mitigation activities and planning. In Agoura Hills, the majority of Owner Occupied Units are valued over \$500,000. Consequently the potential dollar losses from a disaster can rapidly escalate – illustrating the need for mitigation planning.

Value		
	Estimate	Percent
<b>Owner-Occupied Units</b>	<b>5,915</b>	<b>100.0%</b>
Less than \$50,000	75	1.3%
\$50,000 to \$99,999	23	0.4%
\$100,000 to \$149,999	33	0.6%
\$150,000 to \$199,999	0	0.0%
\$200,000 to \$299,999	207	3.5%
\$300,000 to \$499,999	777	13.1%
\$500,000 to \$999,999	3,609	61.0%
\$1,000,000 or more	1,191	20.1%
Median (dollars)	\$740,200	

Source U.S. Census Bureau 2006--2010 American Community Survey

**Table 13: Agoura Hills Home Value Distribution**



**Figure 17: Agoura Hills Distribution of Owner Occupied Unit Values**

**Housing Program**

The City’s Affordable Housing Program includes elements for:

- First-Time Home-Buyer Program
- Residential Rehabilitation
- Mortgage Credit Certificate Program

The residential rehabilitation element provides subsidized loans to allow low and moderate income homeowners (including seniors) to make otherwise unaffordable improvements and repairs to enhance the safety of their homes. Payback on the loans is required upon sale or loan refinance of the structure.

## **Emergency Preparedness**

The following groups are active in providing emergency preparedness, mitigation, and response services within Agoura Hills:

### ***Emergency Operations Center***

The City of Agoura Hills has a fully-equipped and maintained Emergency Operations Center located in the Community Room of the Civic Center at 30001 Ladyface Court. City staff is trained to operate the center in a disaster or emergency situation. Activation of the center can be ordered by the City Manager, the Sheriff's Department, or the Fire Department.

### ***Emergency Response Team***

The City of Agoura Hills implements a City of Agoura Hills Volunteer Disaster Response Team. The City currently has 80 volunteers on its roster and will continue to grow its volunteer base over the next five years. The City solicits volunteers regularly through their city newsletter, the Agoura Hills Leaflet. As part of their preparation to assist the city staff and community in time of emergency, new members attend the CERT training program.

### ***Agoura Hills SAR Team***

The City maintains a Search and Rescue Team through its CERT program. These volunteers would assist public safety agencies in rescue activities if requested.

### ***City of Agoura Hills Law Enforcement Committee***

While the City does not have a Public Safety Committee, the City's Law Enforcement Committee acts in this similar capacity meeting with staff and representatives from Law Enforcement and Los Angeles County Fire representative to discuss safety issues as they present themselves. The Law Enforcement Committee consists of two members of the City Council, who work with the City Manager and a staff liaison. The Law Enforcement Committee meets primarily as needed, but at least annually.

### ***Emergency Communications***

The City maintains multiple communications capabilities that are used on a daily basis as well as in emergencies:

- Connect CTY (Mass notification system)
- AHTV – City of Agoura Hills Cable Channel
- City Twitter Account @cityagourahills
- City Amateur (HAM) Radio Frequency Capabilities/City Repeater - The City has ham radio capabilities within its EOC which provides another method of communication during emergencies. Additionally, the City also has a repeater at the Kimberly Peak location to assist with providing further communications capabilities.

### *Homeowners Associations*

Homeowners associations in Agoura Hills meet on a regular basis to discuss community issues, including hazard mitigation. Homeowners associations mail out information on a periodic basis and are very involved in the community. Additionally, the City will visit Homeowner Associations and other groups to speak about emergency services to encourage groups to become more involved in the City's emergency network.

The following is a list of the Homeowners Associations in the City of Agoura Hills:

- Agoura Hills Country Estates
- Agoura Country Townhomes
- Annandale I Townhomes
- Annandale II Townhomes
- Chateau Creek
- Chateau Park
- Fountainwood
- Griffin Parkside
- Hillrise Open Space
- Indian Hills
- Lake Lindero Community
- Lake Lindero Country Club
- Lake Lindero Townhomes
- Lakeview Villas
- Liberty Canyon
- Liberty Canyon Townhomes
- Meadow Ridge Townhomes
- Morrison Ranch
- Oak Hills
- Oak Valley
- Oakview Garden
- Oakview Ranch
- Old Agoura
- Peacock Ridge
- Rondell Condominiums
- Stonecrest
- Town and Country
- Village of Oak Creek
- Westlake Villas

### *General Plan*

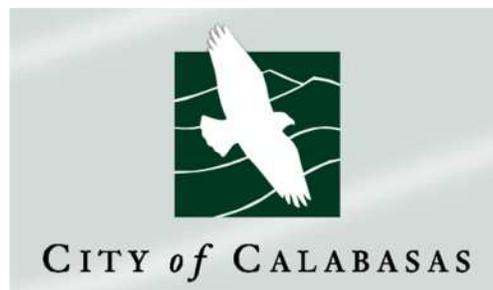
The City Council of Agoura Hills approved a new General Plan on March 24, 2010, which details a strategy for the City's development over the next 25 years. Included in this plan are provisions for flood hazards, geological and seismic hazards, wildland and urban fire hazards and emergency preparedness in general.

As part of the general plan, the City of Agoura Hills implemented the following principles that adhere to particular facets of disaster preparedness:

1. Protect Agoura Hills' residents, workers, and visitors from flood hazards.
2. Protect all personal and property in Agoura Hills from non-seismic geological hazards.
3. Protect all persons and property in Agoura Hills from urban and wildland fires.
4. Protect all persons and property in Agoura Hills from criminal activities.
5. Ensure that life and property in Agoura Hills are not endangered by the use, storage, or transport of hazardous materials.

## Calabasas

Calabasas is located in the southwestern portion of the San Fernando Valley in Los Angeles County. Calabasas is situated along the heavily traveled Ventura Freeway (Highway 101) approximately 25 miles from downtown Los Angeles. A portion of the Calabasas northern boundary is shared with Ventura County.



The City of Calabasas encompasses approximately 12.9 square miles or 8,512 acres of land. The population of Calabasas is estimated at 23,058 people. Unincorporated areas surrounding the city that may be considered for future growth total 3.9 square miles (2,514 acres) and include residential neighborhoods, commercial areas, open space, and a public school.

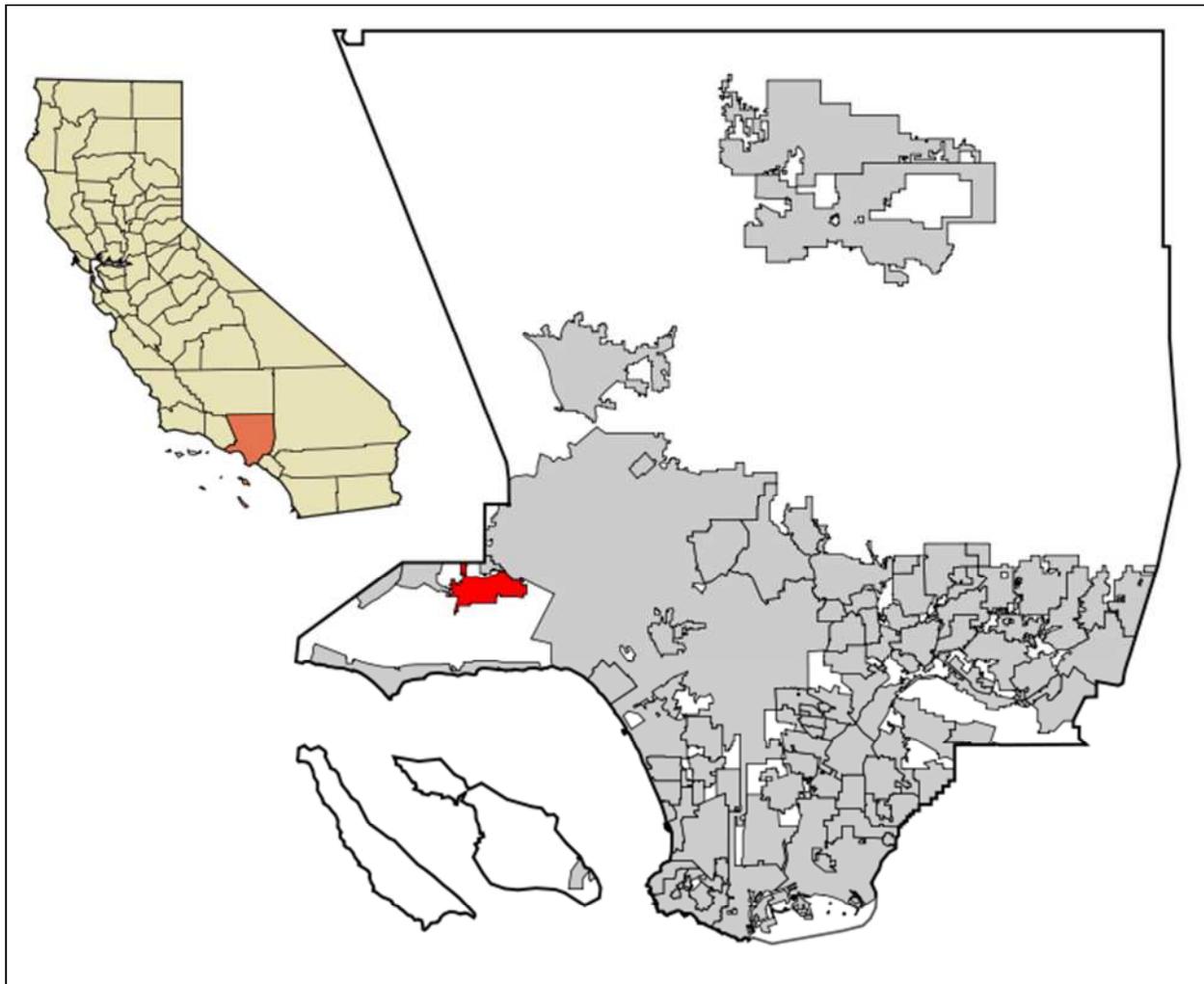
### Brief History

In the early 19<sup>th</sup> century Spanish settlers established farms and ranches in the rural area that is now the city of Calabasas. In the late 19<sup>th</sup> century large ranches gave way to smaller family farms. Residential and commercial development of the area was restricted by water availability until 1958 when the Las Virgenes Municipal Water District established a substantial and reliable water source. Prior to incorporation, Calabasas was an unincorporated community governed by the County of Los Angeles. The City of Calabasas was incorporated in 1991.

### Climate/Topography

The climate in the City of Calabasas can be characterized as mild in the winters, and warm and dry in the summers. Precipitation averages 13.6 inches per year. The terrain can be categorized as rugged or mountainous with a few level areas. Calabasas is located in the foothills of the Santa Monica Mountains, and ranges in elevation from 500 to 2,500 feet above sea level, with an average elevation of 796 feet. The scenic character of Calabasas is a result of its mountainous terrain and most undeveloped areas in Calabasas will likely remain that way due to topographical constraints and zoning limitations.

General Coordinates	
Latitude	34°9'28''North
Longitude	118°38'15''West



**Map 8: Calabasas Location Map**

**Economic Activity**

Economic activity is one indicator of the potential losses that may be incurred in the event of a disaster. The following tables list the principal employers, property tax payers, and taxable sales in Calabasas.

***Calabasas Principal Employers***

Company	Industry	Employees	Percent of Total City Employment
Las Virgenes Unified School District	Education	*1,641	12.23%
The Cheesecake Factory	Mfg/Office	692	5.16%
Ixia	Technology	550	4.10%
City of Calabasas	Government	150	2.18%
Sedgwick Claims Management Services	Insurance	285	2.12%
Viewpoint Education Foundation	Education	278	2.07%
Alcatel Internetworking, Inc.	Technology	266	1.98%
Spirent Communications	Technology	200	1.49%
Informa Research Services, Inc.	Business Services	190	1.42%
Davis Research, LLC	Business Services	165	1.23%
<b>Total</b>		<b>4,559</b>	<b>33.99%</b>
<b>Total City Employment</b>		<b>13,413</b>	<b>100.00%</b>

*Calabasas 2010 Comprehensive Annual Financial Report and SCAG Profile of the City of Calabasas, May 2011*

*\*Includes all District employees since the Las Virgenes Unified School District Headquarters is located in Calabasas- see Agoura Hills Principal Employers for the number of employees in Agoura Hills*

**Table 14: Calabasas Principal Employers*****Calabasas Principal Property Tax Payers***

Company	Taxable Assessed Value	Percent of Total City Assessed Value
ASN Calabasas I LLC	163,328,392	2.54%
Calabasas TC Properties LLC	87,720,000	1.37%
Casden Malibu Canyon L P	84,021,327	1.31%
Kilroy Realty LP	69,663,351	1.09%
Commons At Calabasas LLC	64,560,420	1.01%
MS LPC Malibu Land Holdings LLC	52,291,776	0.81%
Bank of America NA	49,700,916	0.77%
Cheesecake Factory Inc.	40,331,421	0.63%
Calabasas Courtyard Inc.	33,597,176	0.52%
Cypress Calabasas LLC	24,558,131	0.38%
<b>Total</b>	<b>\$669,772,910</b>	<b>8.9%</b>
<b>Total Property Tax Assessed Value</b>	<b>\$6,417,971,246</b>	

*Source Calabasas 2010 Comprehensive Annual Financial Report*

**Table 15: Calabasas Principal Tax Payers**

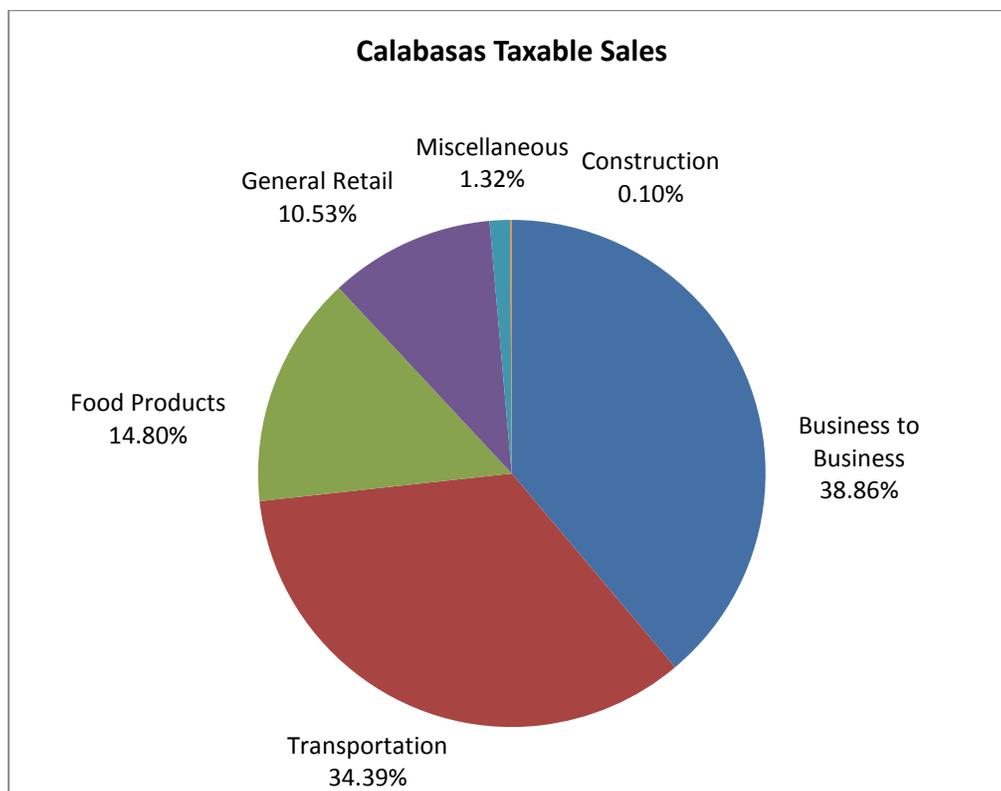
*Calabasas Taxable Sales*

Category	Taxable Sales (thousands)	Percent of Total
Business to Business	\$1,801	38.86%
Transportation	\$1,594	34.39%
Food Products	\$686	14.80%
General Retail	\$488	10.53%
Miscellaneous	\$61	1.32%
Construction	\$5	0.10%
<b>Total</b>	<b>\$4,635</b>	<b>100.00%</b>

*Source Calabasas 2010 Comprehensive Annual Financial Report*

*\*General grocery items are not taxable; the sales tax applies only to prepared food items and nonfood items.*

**Table 16: Calabasas Principal Taxable Sales**



**Figure 18: Calabasas Taxable Sales Percentage by Category**

### Population and Demographics

The following tables summarize the population and demographic groups at risk from a disaster in Calabasas.

#### Sex and Age Distribution

Demographic Estimates		
Sex and Age	Estimate	Percent
<b>Total Population</b>	<b>23,058</b>	<b>100.0%</b>
Male	11,147	48.3%
Female	11,911	51.7%
Under 5 years	1131	4.4%
5 to 9 years	1,571	6.3%
10 to 14 years	1,885	7.8%
15 to 19 years	1,762	8.1%
20 to 24 years	1,367	5.2%
25 to 29 years	982	4.6%
30 to 34 years	909	4.5%
35 to 39 years	1,372	5.5%
40 to 44 years	1,762	7.3%
45 to 49 years	2,083	9.5%
50 to 54 years	2,088	9.5%
55 to 59 years	1,869	9.0%
60 to 64 years	1,374	7.0%
65 to 69 years	985	4.4%
70 to 74 years	736	2.5%
75 to 79 years	521	1.6%
80 to 84 years	383	1.2%
85 years and over	278	1.6%
Median age (years)	41.6	

Source U.S. Census Bureau 2010 Census

Table 17: Calabasas Sex and Age Demographics

Calabasas  
Female to Male Distribution

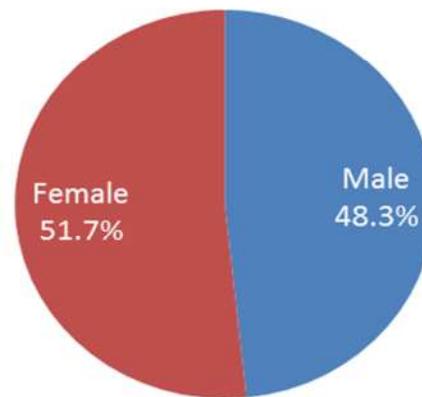


Figure 19: Calabasas Female to Male Distribution

The average age of residents in Calabasas is 41.6 with females (51.7%) outnumbering males (48.3%). Mitigation planning must consider the unique needs of population groups, for example those under 15 years of age and those over 70 years of age.

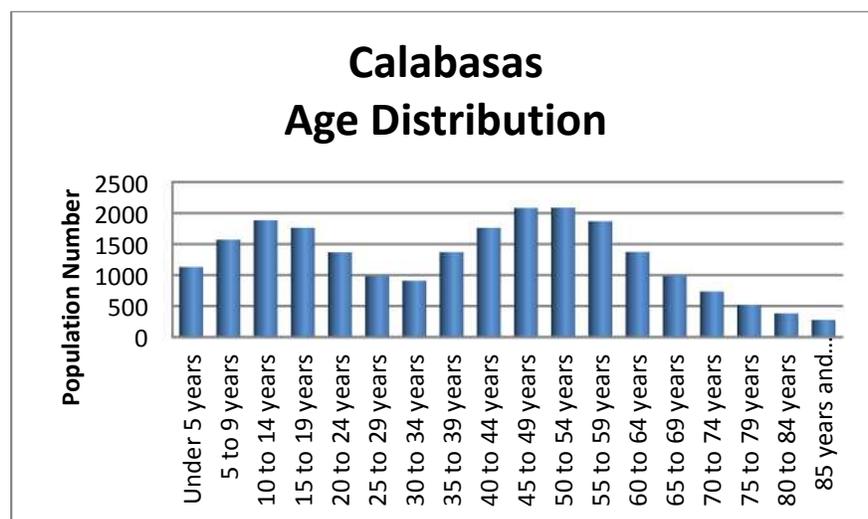


Figure 20: Calabasas Age Distribution

**Race Composition**

One aspect of mitigation planning is the need to address the language (communications) needs of local populations. This includes the ability to distribute information and provide notification in the event of a regional emergency.

For Calabasas, an estimated 28.9% of the population speaks languages other than English (including English and another language or non-English only) with nearly a quarter of these speaking English “less than very well”.

Race	Population	Percent of Total
<b>Total Population</b>	<b>23,058</b>	<b>100.00%</b>
White Alone	18,332	79.50%
Hispanic or Latino (of any race)	1,481	6.42%
Black or African American alone	356	1.54%
American Indian and Alaska Native alone	30	0.13%
Asian alone	1,977	8.57%
Native Hawaiian and Other Pacific Islander Alone	6	0.03%
Some other race alone	68	0.29%
Two or more races	808	3.50%

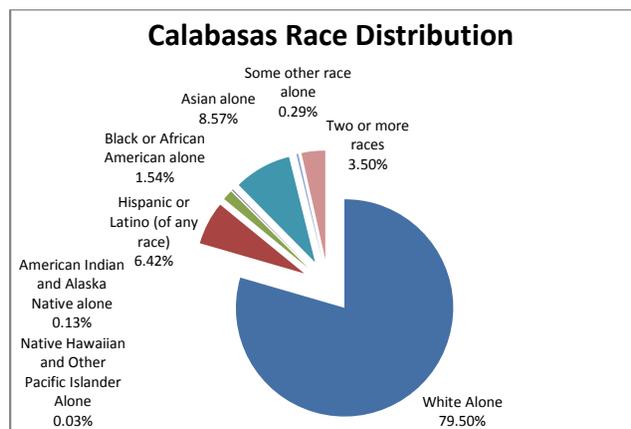
US Census Bureau 2010 Census

**Table 18: Calabasas Race Composition**

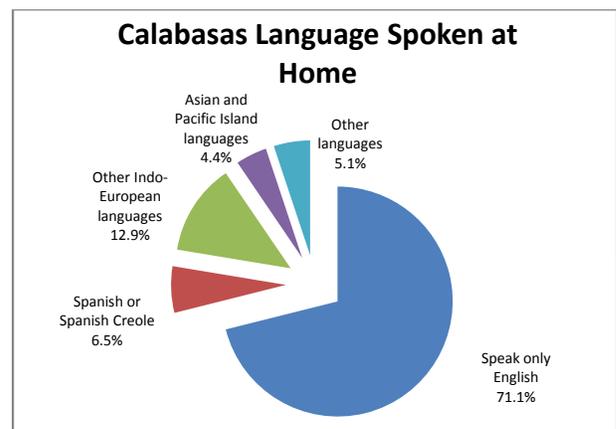
**Languages Spoken at Home**

Subject	Total Estimate	Speak English "very well" Estimate	Speak English less than "very well" Estimate
Population 5 years and over	21,655	93.2%	6.8%
Speak only English	71.1%	(X)	(X)
Speak a language other than English	28.9%	76.6%	23.4%
Spanish or Spanish Creole	6.5%	79.9%	20.10%
Other Indo-European languages	12.9%	79.4%	20.60%
Asian and Pacific Island languages	4.4%	68.9%	31.10%
Other languages	5.1%	71.9%	28.10%

**Table 19: Calabasas Languages Spoken at Home**



**Figure 21: Calabasas Race Distribution**



**Figure 22: Calabasas Languages Spoken at Home**

**Income Distribution**

Household income is a factor for mitigation planning since population groups in lower income ranges are less able to cope with the impact of disasters.

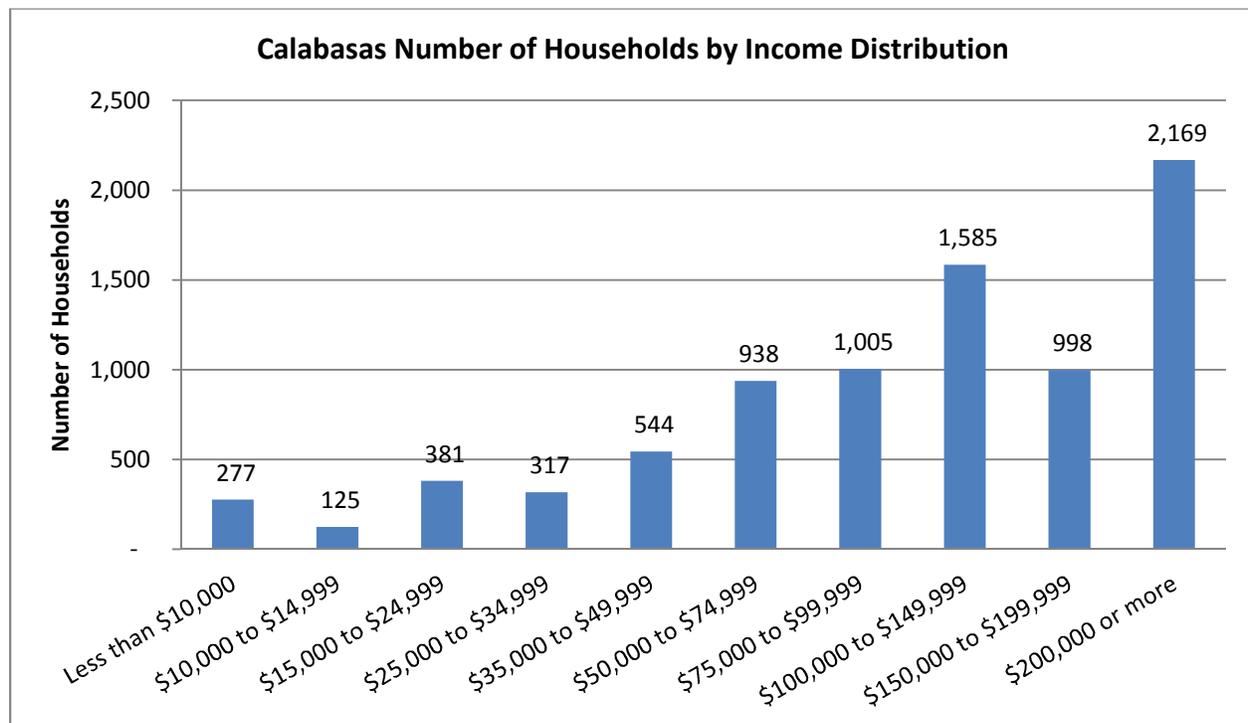
Furthermore, the availability of household funds can have a direct impact on the level of individual and family hazard mitigation activities and emergency preparedness.

In Calabasas, while the mean household income is \$164,833, there are a limited number of households with incomes less than \$25,000, near the U.S. poverty level of \$22,350 for a family of four as defined by the 2011 HHS Poverty Guidelines, by the U.S. Department of Health & Human Services.

<b>Income and Benefits (in 2009 Inflation-Adjusted Dollars)</b>		
	<b>Estimate</b>	<b>Percent</b>
<b>Total Household Income</b>	8339	<b>100.0%</b>
Less than \$10,000	277	3.3%
\$10,000 to \$14,999	125	1.5%
\$15,000 to \$24,999	381	4.6%
\$25,000 to \$34,999	317	3.8%
\$35,000 to \$49,999	544	6.5%
\$50,000 to \$74,999	938	11.2%
\$75,000 to \$99,999	1,005	12.1%
\$100,000 to \$149,999	1,585	19.0%
\$150,000 to \$199,999	998	12.0%
\$200,000 or more	2,169	26.0%
Median household income (dollars)	116,403	(X)
Mean household income (dollars)	164,833	(X)

*Source U.S. Census Bureau 2006-2010 American Community Survey Estimate*

**Table 20: Calabasas Income and Benefits (2009 Inflation Adjusted Dollars)**



**Figure 23: Calabasas Income Distribution**

## Land Use

There are 55.5 lane miles of streets in the City of Calabasas. Due to environmental constraints and steep hillsides, most undeveloped land within the Calabasas City limits will remain undeveloped and most developable areas are already built out. The non-developed areas of Calabasas are mainly in open space or hillside/mountainous zones.

The City of Calabasas is mainly residential but also hosts a number of commercial business parks and shopping centers including:

- Calabasas Canyon Center
- Calabasas Plaza
- Creekside Village
- Gelson's Village
- Malibu Canyon Plaza
- Old Town Shopping Center
- Plaza Calabasas
- The Commons
- The Courtyard at the Commons

## Housing Characteristics

The following housing statistics provide a summary of the numbers and types of housing units that are at risk if a disaster were to occur in Calabasas. Housing data includes: Housing Occupancy, Units in Structure Change from 2000 to 2010, Number of Structures Built by Year, Home Values, and Home Value Distribution. In Calabasas, there has been a significant increase in the number of housing units since 2000 – particularly in multi-unit structures.

Housing Occupancy	Estimate	Percent
<b>Total Housing Units</b>	8,686	100.0%
Occupied housing units	8,339	96.0%
Vacant housing units	347	4.0%

Source U.S. Census Bureau 2006-2010 American Community Survey

**Table 21: Calabasas Housing Occupancy**

Units In Structure	2010		2000		Change	
	Estimated Number	Percent of Units	Number	Percent of Units	Difference 2010-2000	Percent Change
<b>Total Housing Units</b>	8,686	100.00%	<b>6,955</b>	<b>100%</b>	<b>1,731</b>	<b>24.9%</b>
1-unit, detached	5,966	68.69%	5,191	74.6%	775	14.9%
1-unit, attached	649	7.47%	974	14.0%	(325)	-33.4%
2 units	11	0.13%	7	0.1%	4	57.1%
3 or 4 units	470	5.41%	168	2.4%	302	179.8%
5 to 9 units	403	4.64%	126	1.8%	277	219.8%
10 to 19 units	400	4.61%	140	2.0%	260	185.7%
20 or more units	561	6.46%	349	5.0%	212	60.7%
Mobile home	226	2.60%	0	0.0%	226	-
Boat, RV, van, etc.	-	0.00%	0	0.0%	-	0.0%

Source: US Census Bureau 2006 - 2010 ACS and US Census Bureau 2000 Census

**Table 22: Calabasas Units in Structure Change from 2000 to 2010**

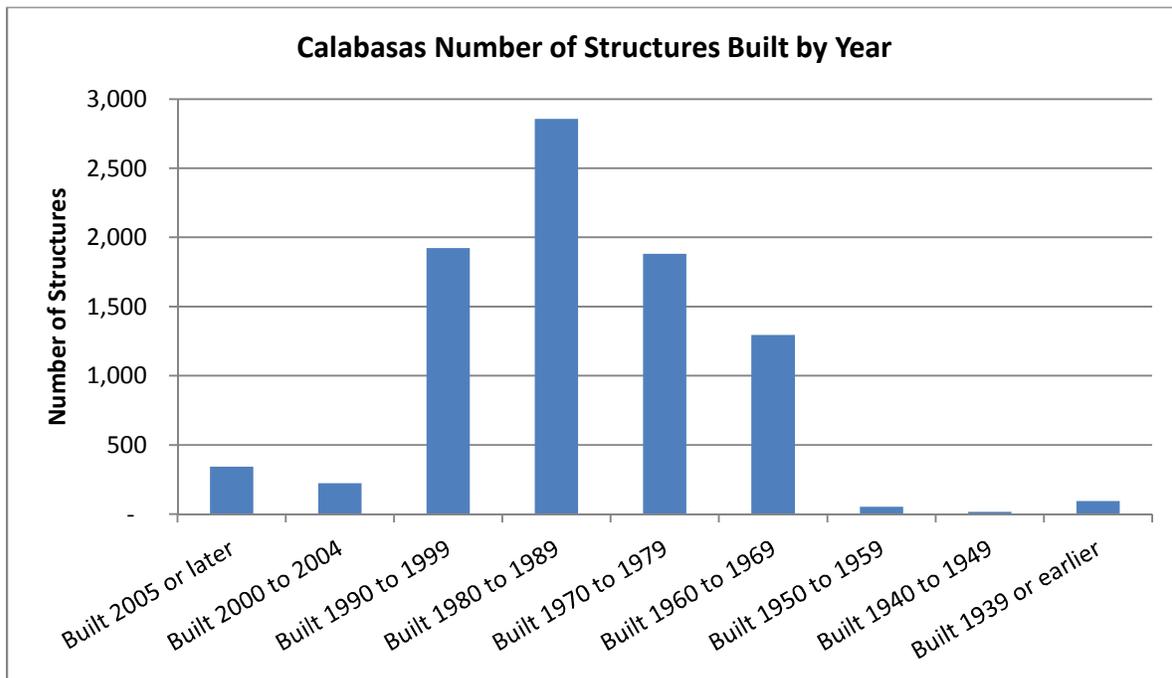
In terms of risk and disaster mitigation, older structures that have not been retrofitted or otherwise improved may be more susceptible to damage or destruction due to age and the fact that older building codes were less stringent than those required for newer structures. As a result the inventory of older structures is a consideration when developing mitigation plans.

In Calabasas, 71.3% of structures (6,197) were built prior to 1990 and 21.7% (1,882) before 1980.

Year Structure Built	Estimate	Percent
Total housing units	<b>8,688</b>	<b>100.0%</b>
Built 2005 or later	344	4.0%
Built 2000 to 2004	224	2.6%
Built 1990 to 1999	1923	22.1%
Built 1980 to 1989	2,857	32.9%
Built 1970 to 1979	1,882	21.7%
Built 1960 to 1969	1294	14.9%
Built 1950 to 1959	54	0.6%
Built 1940 to 1949	16	0.2%
Built 1939 or earlier	94	1.1%

Source: U.S. Census Bureau 2006-2010 American Community Survey

**Table 23: Year Structures Built in Calabasas**



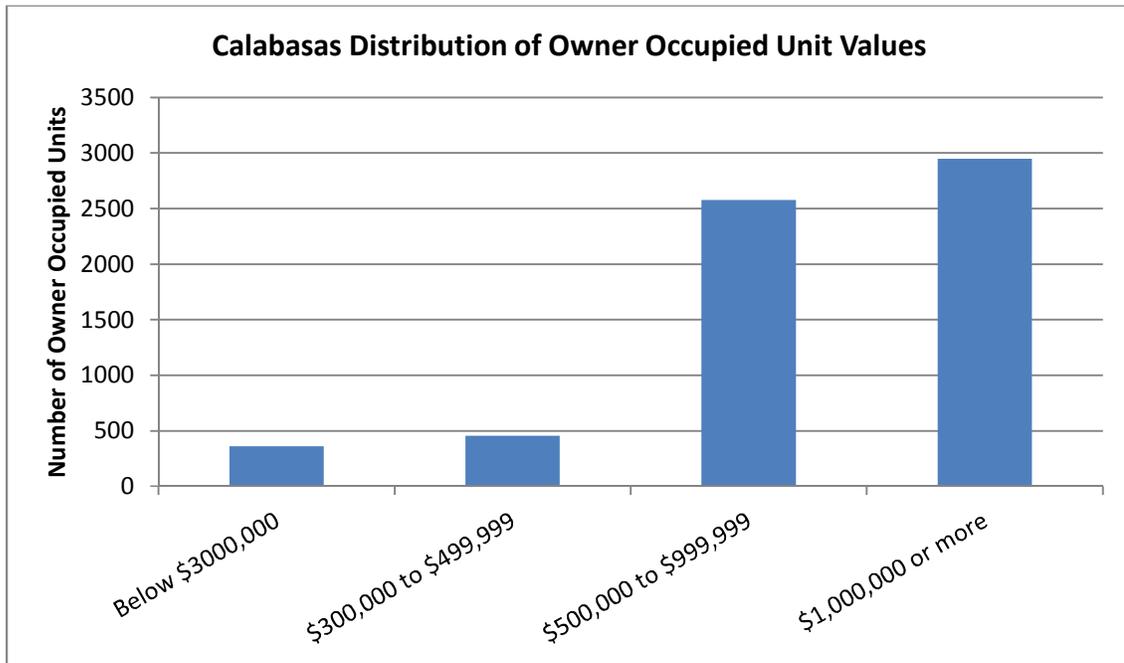
**Figure 24: Calabasas Number of Structures Built by Year**

Home values are an important consideration when evaluating the potential dollar loss due to disasters. These values can also be used to assess the cost/benefit of mitigation activities and planning. In Calabasas, the majority of Owner Occupied Units are valued over \$500,000. Consequently the potential dollar losses from a disaster can rapidly escalate – illustrating the need for mitigation planning.

Value		
	Estimate	Percent
<b>Owner-Occupied Units</b>	<b>6,344</b>	<b>100.0%</b>
Less than \$50,000	28	0.4%
\$50,000 to \$99,999	127	2.0%
\$100,000 to \$149,999	59	0.9%
\$150,000 to \$199,999	51	0.8%
\$200,000 to \$299,999	96	1.5%
\$300,000 to \$499,999	456	7.2%
\$500,000 to \$999,999	2,578	40.6%
\$1,000,000 or more	2,949	46.5%
Median (dollars)	\$962,700	

Source U.S. Census Bureau 2006--2010 American Community Survey

**Table 24: Calabasas Home Value Distribution**



**Figure 25: Calabasas Distribution of Owner Occupied Unit Values**

## **Emergency Preparedness**

The following groups are active in providing emergency preparedness, mitigation, and response services within Calabasas.

### ***Emergency Operations Center***

The City of Calabasas' Emergency Response organization is organized using the federally mandated Incident Command System (ICS). The City of Calabasas has an Emergency Operations Center and separate communications room. The City of Calabasas coordinates its emergency activities with the Lost Hills Sheriff's Station and the L.A. County Office of Emergency Management through the Emergency Management Information System Operational Area Response and Recovery System (OARRS). The City of Calabasas also has an internal cable television network which is used during emergency/disaster situations to relay information to the public on conditions within the City including transit issues, fire hazards, flood, shelter locations, school issues, and animal care and control.

### ***Public Safety Commission***

The City of Calabasas has a variety of commissions that offer residents opportunities to participate in city issues including the Public Safety Commission. The purpose of the Public Safety Commission is to foster and maintain effective interaction with law enforcement and to develop a formal mechanism to support such interaction. The scope of subject matter that is pursued by the Public Safety Commission and representatives of law enforcement are as follows:

- Fire / Life Safety Issues
- Crime Incidents / Trends
- Traffic Safety School Related Issues
- Time and Performance Data
- Safety Hazards
- Public Perceptions of Law Enforcement Performance

### ***Emergency Communications***

The City maintains multiple communications capabilities that are used on a daily basis as well as in emergencies:

- Blackboard Connect (Connect CTY mass notification system)
- CTV (The Calabasas Channel) – City of Calabasas Cable Channel
- City of Calabasas emergency broadcast information radio channel AM 1630
- City of Calabasas website ([www.cityofcalabasas.com](http://www.cityofcalabasas.com))
- Connect with Calabasas (Automated Email notifications, newsletters, agendas, projects, and reports)
- City Email ([info@cityofcalabasas.com](mailto:info@cityofcalabasas.com))
- City Twitter Account @CityofCalabasas
- City Facebook Account

***CalHam***

The City of Calabasas has an amateur radio station "CalHam" comprised of community members who are CERP (Community Emergency Response Program), CERT (Community Emergency Response Training), and FCC licensed that test the system on a weekly basis. During an emergency, neighborhood information/status reports are forwarded to the City's Emergency Operations Center.

***Homeowners Associations***

Calabasas has an extensive list of Homeowners Associations that meet to discuss various community issues and are very involved in the community. The following is a list of the Homeowners Associations in the City of Calabasas.

<b>Calabasas Homeowner Associations</b>	
Alizia Canyon	Malibu Canyon Townhomes
Archstone Calabasas	Malibu Canyon Villas
Bellagio - Park Verdi	Malibu Creek Apartments
Braewood Calabasas	Malibu Creek Condominiums
Calabasas Colony	Mira Monte
Calabasas Country Estates	Mountain Park
Calabasas Highlands	Mulholland Heights
Calabasas Hills	Mulholland Heights North
Calabasas Park (Lake)	Mulholland Ranch Estates
Calabasas Park Estates	Mullwood Townhomes
Calabasas Ridge	Oak Creek
Calabasas View	Oak Creek Estates
Calabasas Village Mobil Estates	Oak Park
Clairidge	Old Topanga, Inc.
Classic Calabasas	Palatino
Country Lane HOA	Park Moderne
Creekside Calabasas	Park Sorrento Condos
Deer Springs	Saint Andrews
El Encanto	Saratoga Hills HOA
Greater Mulwood Homeowners	Saratoga Ranch
Las Villas Calabasas	Serenata
Las Virgenes Hills Homes	Steeplechase
Las Virgenes Homeowners Federation	Stonecreek
Las Virgenes Park	Tanterra HOA
Las Virgenes Village Townhomes	The Oaks of Calabasas
Malibu Canyon Apartments	Vista Pointe
Malibu Canyon Community	Westridge
Malibu Canyon Park	Woodland

## Hidden Hills

Hidden Hills is a small, affluent, gated community located along the Ventura Freeway (U.S. Highway 101) in the westernmost portion of the San Fernando Valley in Los Angeles County. The land area is 1.65 square miles with a population of 1,856 people and a median home value greater than \$1,000,000. Hidden Hills is a master planned community designed and developed by A.E. Hanson in the 1950's.



### Brief History

The area that is today the city of Hidden Hills was initially farm and ranchland. In 1950 developer A.E. Hanson purchased 1000 acres from local landowners, divided the property and began selling homes and home sites. In 1961 facing the prospect of becoming annexed by the city of Los Angeles and having Burbank Boulevard extended through the community, the residents of Hidden Hills elected to incorporate becoming the 73<sup>rd</sup> city incorporated in Los Angeles County. The community has continued to develop in a controlled fashion following strict development codes governed by the Hidden Hills Community Association.

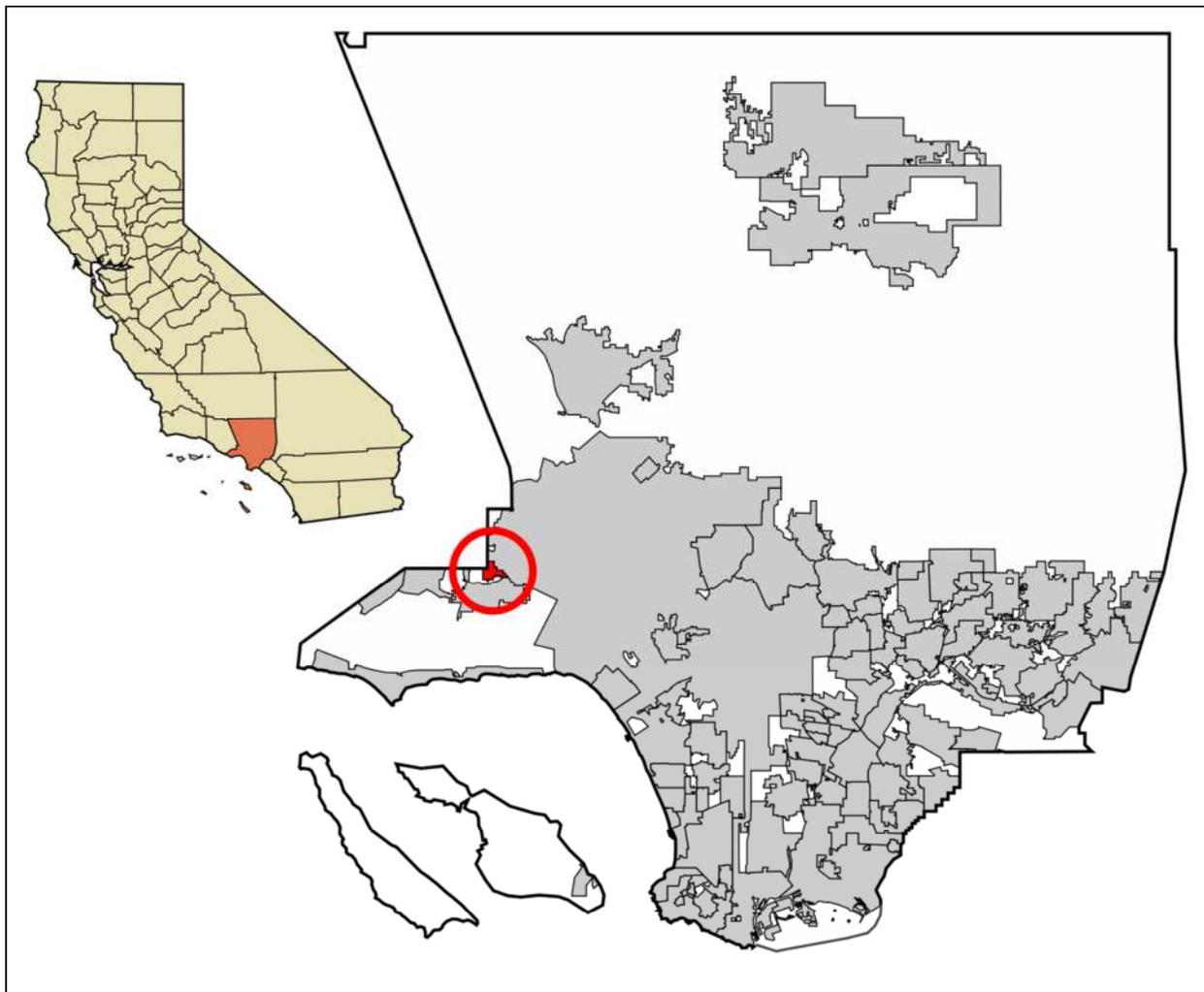
Three full-time employees staff the office of City Hall and provide all necessary services and information to residents, visitors and contractors. Residents of Hidden Hills elect a five-member City Council on a non-partisan basis to serve four year overlapping terms. The Mayor is selected by the City Council, from one of its members, for a one year term and serves as the official representative of the City.

### Climate/Topography

Winters are mild and slightly rainy while summers are warm and dry. The temperature ranges from the low 60's to the high 90's in the summer and from the low 40's to the high 60's in the winter. The average annual rain fall in Hidden Hills is 13.6 inches.

To the northwest, Hidden Hills abuts the foothills of the Simi Hills mountain range and the 3,000 acre Upper Las Virgenes Canyon Open Space Preserve. To the south the community is bordered by U.S. Highway 101.

General Coordinates	
Latitude	34° 10' 3" North
Longitude	118° 39' 39" West



**Map 9: Hidden Hills Location Map**

### **Economic Activity**

The City of Hidden Hills is a completely residential community with the exception of a small restricted commercial zone with one real estate office. As a result the impact of a disaster would have limited economic impact in terms of businesses; however there could be a large impact to the local population and residential structures (see Population Demographics and Land Use sections below).

### Population and Demographics

The following tables summarize the population and demographic groups at risk from a disaster in Hidden Hills.

#### Sex and Age Distribution

Demographic Estimates		
Sex and Age	Estimate	Percent
<b>Total Population</b>	<b>1,856</b>	<b>100.0%</b>
Male	909	49.0%
Female	947	51.0%
Under 5 years	57	3.1%
5 to 9 years	139	7.5%
10 to 14 years	205	11.0%
15 to 19 years	183	9.9%
20 to 24 years	72	3.9%
25 to 29 years	36	1.9%
30 to 34 years	27	1.5%
35 to 39 years	49	2.6%
40 to 44 years	133	7.2%
45 to 49 years	187	10.1%
50 to 54 years	195	10.5%
55 to 59 years	156	8.4%
60 to 64 years	122	6.6%
65 to 69 years	102	5.5%
70 to 74 years	77	4.1%
75 to 79 years	46	2.5%
80 to 84 years	36	1.9%
85 years and over	34	1.8%
Median age (years)	45.8	

Source U.S. Census Bureau 2010 Census

Table 25: Hidden Hills Sex and Age Demographics

Hidden Hills  
Female to Male Distribution

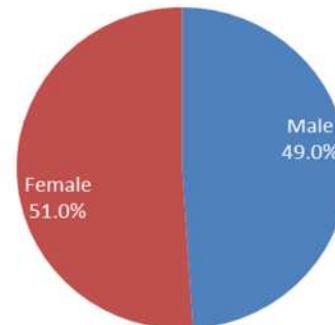


Figure 26: Hidden Hills Female to Male Distribution

The average age of residents in Hidden Hills is 45.8 with females (51.0%) outnumbering males (49.0%). Mitigation planning must consider the unique needs of population groups, for example those under 15 years of age and those over 70 years of age.

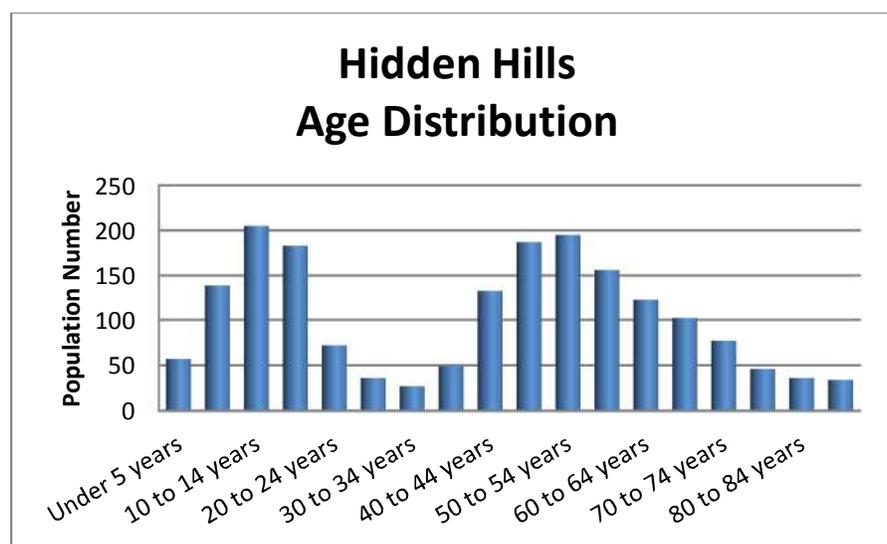


Figure 27: Hidden Hills Age Distribution

**Race Composition**

One aspect of mitigation planning is the need to address the language (communications) needs of local populations. This includes the ability to distribute information and provide notification in the event of a regional emergency. For Hidden Hills, an estimated 4.8% of the population speaks languages other than English (including English and another language or non-English only) with nearly a quarter of these speaking English “less than very well”.

Race	Population	Percent of Total
<b>Total Population</b>	<b>1,856</b>	<b>100.0%</b>
White Alone	1,622	87.4%
Hispanic or Latino (of any race)	123	6.6%
Black or African American alone	36	1.9%
American Indian and Alaska Native alone	3	0.2%
Asian alone	39	2.1%
Native Hawaiian and Other Pacific Islander Alone	1	0.1%
Some other race alone	4	0.2%
Two or more races	28	1.5%

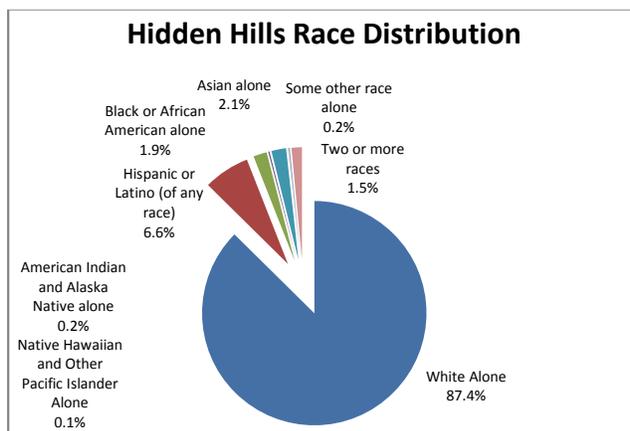
US Census Bureau 2010 Census

**Table 26: Hidden Hills Race Composition**

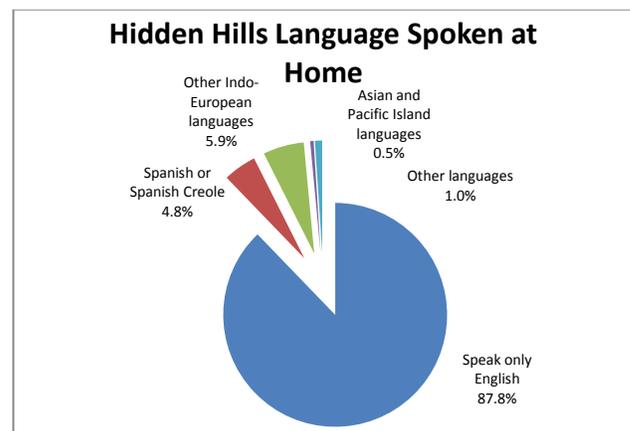
**Languages Spoken at Home**

Subject	Total Estimate	Speak English "very well" Estimate	Speak English less than "very well" Estimate
<b>Population 5 years and over</b>	<b>2,437</b>	<b>96.7%</b>	<b>3.3%</b>
Speak only English	87.8%	(X)	(X)
Speak a language other than English	12.2	73.2%	26.8%
Spanish or Spanish Creole	4.8%	76.1%	23.9%
Other Indo-European languages	5.9%	64.1%	35.9%
Asian and Pacific Island languages	0.5%	100.0%	0.0%
Other languages	1.0%	100.0%	0.0%

**Table 27: Hidden Hills Languages Spoken at Home**



**Figure 28: Hidden Hills Race Distribution**



**Figure 29: Hidden Hills Languages Spoken at Home**

**Income Distribution**

Household income is a factor for mitigation planning since population groups in lower income ranges are less able to cope with the impact of disasters.

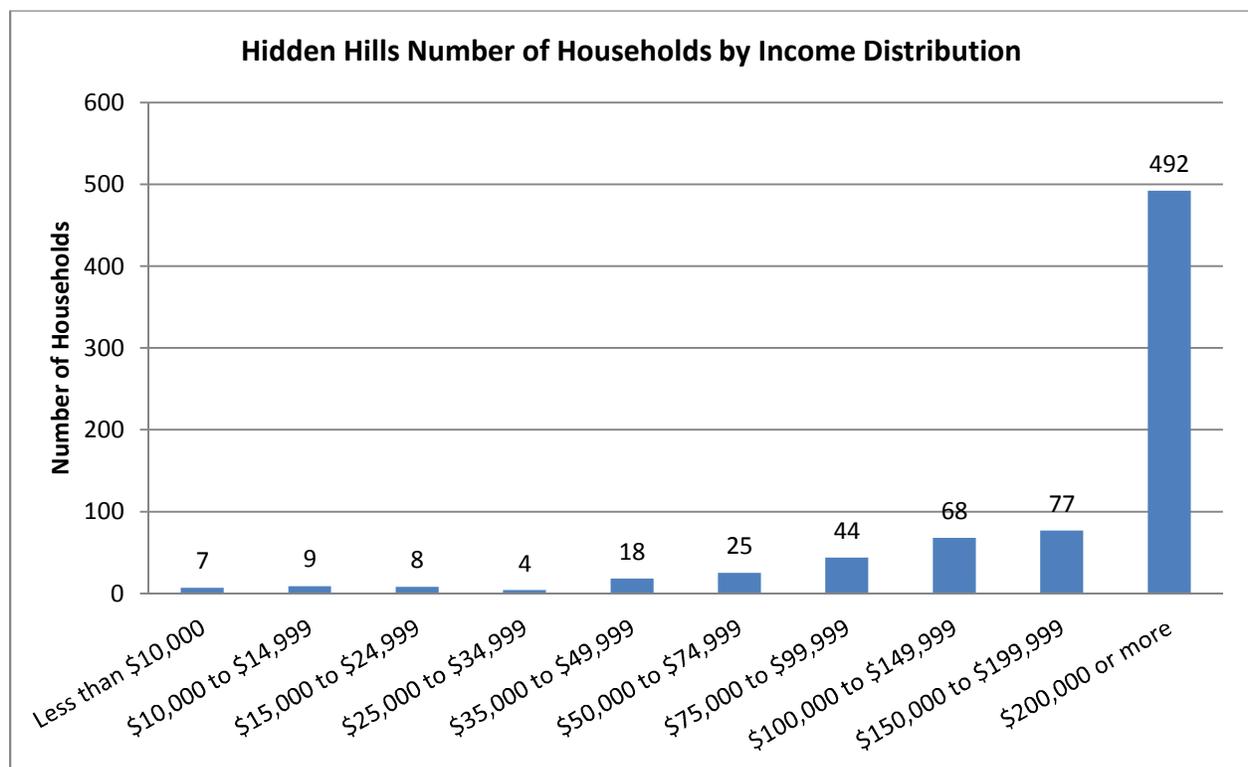
Furthermore, the availability of household funds can have a direct impact on the level of individual and family hazard mitigation activities and emergency preparedness.

In Hidden Hills, while the mean household income is over \$383,731 there are a limited number of households with incomes less than \$25,000, near the U.S. poverty level of \$22,350 for a family of four as defined by the 2011 HHS Poverty Guidelines, by the U.S. Department of Health & Human Services.

<b>Income and Benefits (in 2009 Inflation-Adjusted Dollars)</b>		
	<b>Estimate</b>	<b>Percent</b>
<b>Total Household Income</b>	752	100.0%
Less than \$10,000	7	0.9%
\$10,000 to \$14,999	9	1.2%
\$15,000 to \$24,999	8	1.1%
\$25,000 to \$34,999	4	0.5%
\$35,000 to \$49,999	18	2.4%
\$50,000 to \$74,999	25	3.3%
\$75,000 to \$99,999	44	5.9%
\$100,000 to \$149,999	68	9.0%
\$150,000 to \$199,999	77	10.2%
\$200,000 or more	492	65.4%
Median household income (dollars)	\$250,000+	(X)
Mean household income (dollars)	\$383,731	(X)

Source U.S. Census Bureau 2006-2010 American Community Survey Estimate

**Table 28: Hidden Hills Income and Benefits (2009 Inflation Adjusted Dollars)**



**Figure 30: Hidden Hills Income Distribution**

## Land Use

Hidden Hills is a fully developed master planned residential community with a land area of 1.65 square miles. There is a small restricted commercial zone with a real estate office. Any further development or home modifications must be approved by the Hidden Hills Community Association Architectural Committee. There are 648 home sites, three guard houses, six miles of roads, 25 miles of bridle trails, three community riding arenas, four tennis courts, a competition-size pool, recreation center, and a 99-seat performing arts/movie theater.

## Housing Characteristics

The following housing statistics provide a summary of the numbers and types of housing units that are at risk if a disaster were to occur in Hidden Hills. Housing data includes: Housing Occupancy, Housing Unit Change from 2000 to 2009, Number of Structures Built by Year, Home Values, and Home Value Distribution. In Hidden Hills, there has been a significant increase in the number of single housing units since 2000. The information presented is based on a combination of estimates from the U.S. Census Bureau and Hidden Hills.

Housing Occupancy	Estimate	Percent
<b>Total Housing Units</b>	606	100.0%
Occupied housing units	593	97.9%
Vacant housing units	13	2.1%

Source U.S. Census Bureau American Fact Finder 2010 Demographic Data and Hidden Hills Estimate

**Table 29: Hidden Hills Housing Occupancy**

Units In Structure	2010		2000		Change	
	Estimated Number	Percent of Units	Number	Percent of Units	Difference 2010-2000	Percent Change
<b>Total Housing Units</b>	606	100.0%	<b>590</b>	<b>100.0%</b>	<b>16</b>	<b>2.71%</b>
1-unit, detached	601	99.2%	588	99.7%	13	2.21%
1-unit, attached	5	0.8%	2	0.3%	3	150.0%
2 units	0	0.0%	0	0.0%	-	-
3 or 4 units	0	0.0%	0	0.0%	-	-
5 to 9 units	0	0.0%	0	0.0%	-	-
10 to 19 units	0	0.0%	0	0.0%	-	-
20 or more units	0	0.0%	0	0.0%	-	-
Mobile home	0	0.0%	0	0.0%	-	-
Boat, RV, van, etc.	0	0.0%	0	0.0%	-	-

Source: US Census Bureau 2010 ACS Estimates and US Census Bureau 2000 Census and Hidden Hills Estimates

**Table 30: Hidden Hills Units in Structure Change from 2000 to 2010**

In terms of risk and disaster mitigation, older structures that have not been retrofitted or otherwise improved may be more susceptible to damage or destruction due to age and the fact that older building codes were less stringent than those required for newer structures. As a result the inventory of older structures is a consideration when developing mitigation plans. In Hidden Hills more than half of structures were built prior to 1980.

Year Structure Built	Estimate	Percent
<b>Total housing units</b>	<b>606</b>	<b>100.0%</b>
Built 2005 or later	12	1.5%
Built 2000 to 2004	32	4.5%
Built 1990 to 1999	131	19.3%
Built 1980 to 1989	73	16.1%
Built 1970 to 1979	71	9.4%
Built 1960 to 1969	111	15.9%
Built 1950 to 1959	168	30.7%
Built 1940 to 1949	6	0.9%
Built 1939 or earlier	2	1.7%

Source: U.S. Census Bureau 2006-2010 American Community Survey and 2009 American Community Survey 5-Year Estimate, and Hidden Hills Estimates

Table 31: Year Structures Built in Hidden Hills

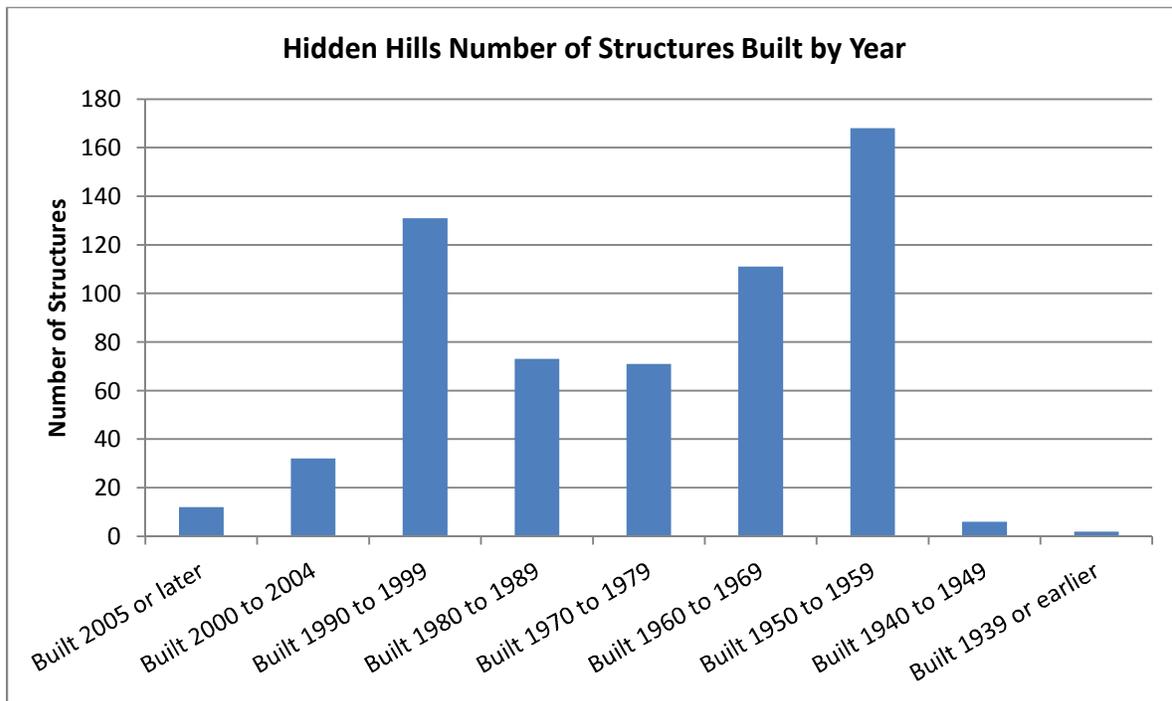


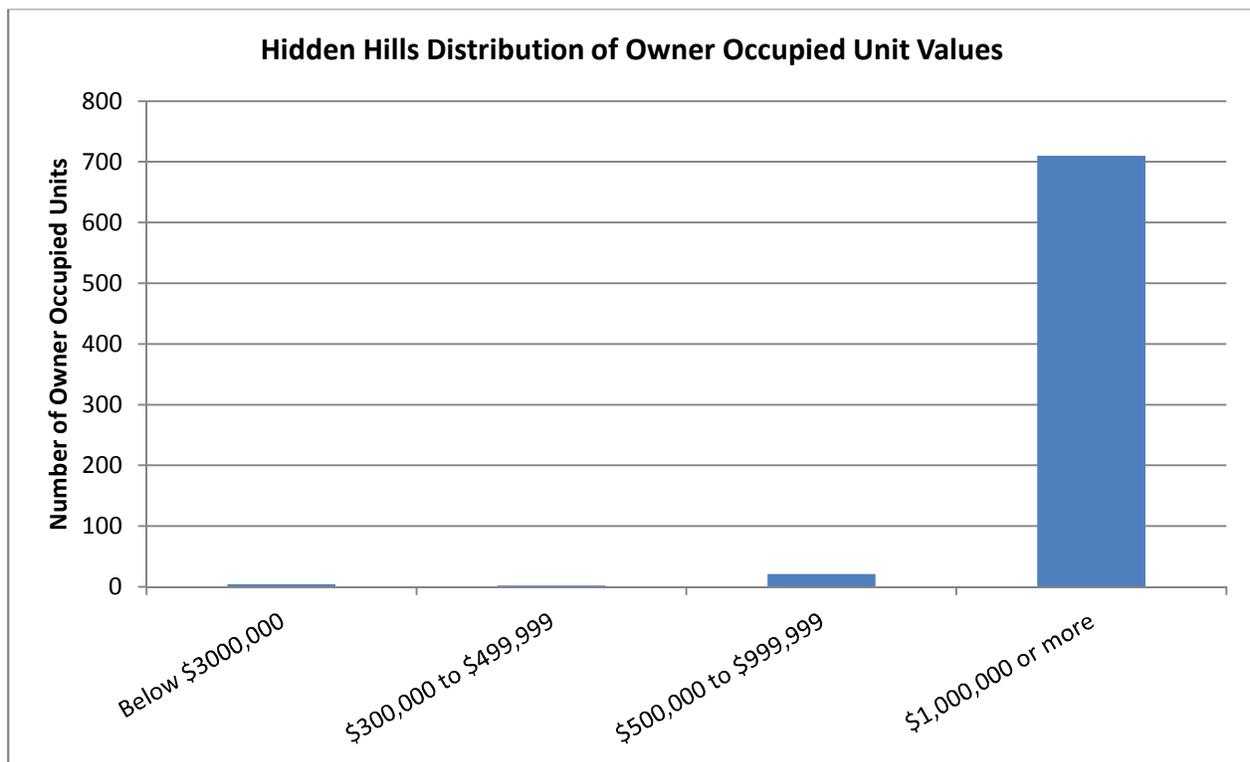
Figure 31: Hidden Hills Number of Structures Built by Year

Home values are an important consideration when evaluating the potential dollar loss due to disasters. These values can also be used to assess the cost/benefit of mitigation activities and planning. In Hidden Hills, the majority of Owner Occupied Units are valued over \$1,000,000. Consequently the potential dollar losses from a disaster can rapidly escalate – illustrating the need for mitigation planning.

Value	Estimate	Percent
<b>Owner-Occupied Units</b>	<b>737</b>	<b>100.0%</b>
Less than \$50,000	0	0.0%
\$50,000 to \$99,999	0	0.0%
\$100,000 to \$149,999	2	0.3%
\$150,000 to \$199,999	0	0.0%
\$200,000 to \$299,999	2	0.3%
\$300,000 to \$499,999	2	0.3%
\$500,000 to \$999,999	21	2.8%
\$1,000,000 or more	710	96.3%
Median (dollars)	\$1,000,000+	

Source U.S. Census Bureau 2006--2010 American Community Survey

**Table 32: Hidden Hills Home Value Distribution**



**Figure 32: Hidden Hills Distribution of Owner Occupied Unit Values**

## **Emergency Preparedness**

The City of Hidden Hills is a general law municipality operating on a contract basis for law enforcement, building and safety, planning and engineering, as well as legal counsel. The City's fire and emergency medical services are provided through the Consolidated Fire Protection District of Los Angeles County.

### ***Emergency Operations Center***

The City of Hidden Hills has a fully equipped Emergency Operations Center (EOC) located at City Hall in the City Council Chambers. The primary Casualty Collection Point is located at Round Meadow Elementary School.

### ***Public Safety Commission***

The City of Hidden Hills Public Safety Commission consists of five members appointed by the Mayor and subject to the approval of City Council. The Commission advises City Council on the health and safety needs of the public within the City, and makes recommendations to City Council for the enactment of legislation or procedures to maintain and improve the welfare and safety of the public. The Commission acts as a liaison to certain County departments such as the Sheriff's Department, the Department of Health Services, the Department of Animal Control, the Fire Department, and the City's Building and Safety Department. Additional responsibilities include interfacing with private organizations and utilities within the City that provide services which relate to the responsibilities of the Commission and affect City policies. Commissioners also serve on the Disaster Council which provides an overview of the Emergency Operations Plan (EOP). They also review and conduct studies on issues of public safety, administer public education programs, and staff and operate the Emergency Operations Center for the City.

### ***Office of Emergency Services***

The Hidden Hills Office of Emergency Services (OES) is responsible for the development of the City's Emergency Operations Plan, which provides for the effective mobilization of all the City's resources, both public and private, to meet any condition constituting a local emergency, state of emergency or state of war emergency.

OES consists of all officers and employees of the City, Public Safety Commissioners, volunteer forces enrolled to aid during an emergency, and all groups, organizations and persons who may, by agreement or operations of law, including persons impressed into service, be charged with duties incident to the protection of life and property in the City during an emergency.

OES provides a liaison to Round Meadow Elementary School. This liaison is a member of the school's Disaster Preparedness Committee.

### ***Hidden Hills Community Association (HHCA) - Equestrian Services Committee***

This Committee is responsible for coordinating the evacuation of horses and other livestock in the community during emergency or disaster situations.

### ***Community Emergency Response Team (CERT)***

The Community Emergency Response Team is a group of volunteers who have been certified as emergency response personnel. Volunteers receive training under a nationally recognized program for emergency and disaster response. CERT members have also received additional training to aid in preliminary damage assessment. To facilitate coordination of emergency response efforts, the City has been divided into seven (7) geographic regions.

### ***Emergency Medical Response***

An Emergency Medical Response trailer is equipped to aid in providing services to 350 - 400 victims. Storage is also provided for medical supplies and search and rescue equipment.

### ***Communication Systems***

The City has assigned Amateur Radio frequency and maintains a repeater, several base stations positioned throughout the City, and handheld radios distributed for use throughout the city, as well as at the EOC. In addition, the City has several licensed HAM operators. The City can maintain contact with Round Meadow Elementary School and the Hidden Hills Community Association in emergencies.

Cable TV Channel 3 is used as a community notification and bulletin board. Throughout the year the station is used to show videos related to emergency and disaster preparedness. Additionally, in the event of an emergency, emergency messaging can be broadcast on Channel 3.

The City of Hidden Hills implemented the Blackboard Connect® service allowing authorized civic leaders to create and rapidly disseminate emergency messages to every telephone number stored in the notification database.

Hidden Hills uses an E-mail notification system that immediately provides important information to residents who have voluntarily joined the program. This system is also used to circulate public service announcements, such as reminding seniors to check alternate electrical power sources in the event of an electric shutdown.

Finally, the City of Hidden Hills circulates a monthly newsletter. The newsletter provides general bulletins as well as emergency preparedness recommendations and information.

## Malibu

The City of Malibu is located along the Pacific Ocean northwest of the City of Los Angeles. Malibu is generally bounded on the north by the Santa Monica Mountains, on the east by Topanga Canyon, on the west by Ventura County and on the south by the Pacific Ocean. Malibu was incorporated on March 28, 1991. The City has 21 miles of coastline along the Pacific Ocean and has a population of 12,645 (2010 U.S. Census)



The City of Malibu is a dynamic, internationally recognized community in Northern Los Angeles County that offers a high quality of life for its residents. Celebrated for its natural beauty and unique coastal resources, the City is also renowned for its leadership in environmental stewardship, excellent schools and political activism. Malibu has seven miles of public beaches, canyons and watershed along its 21 miles of coastline and provides numerous opportunities for recreation and outdoor activities.

### Brief History

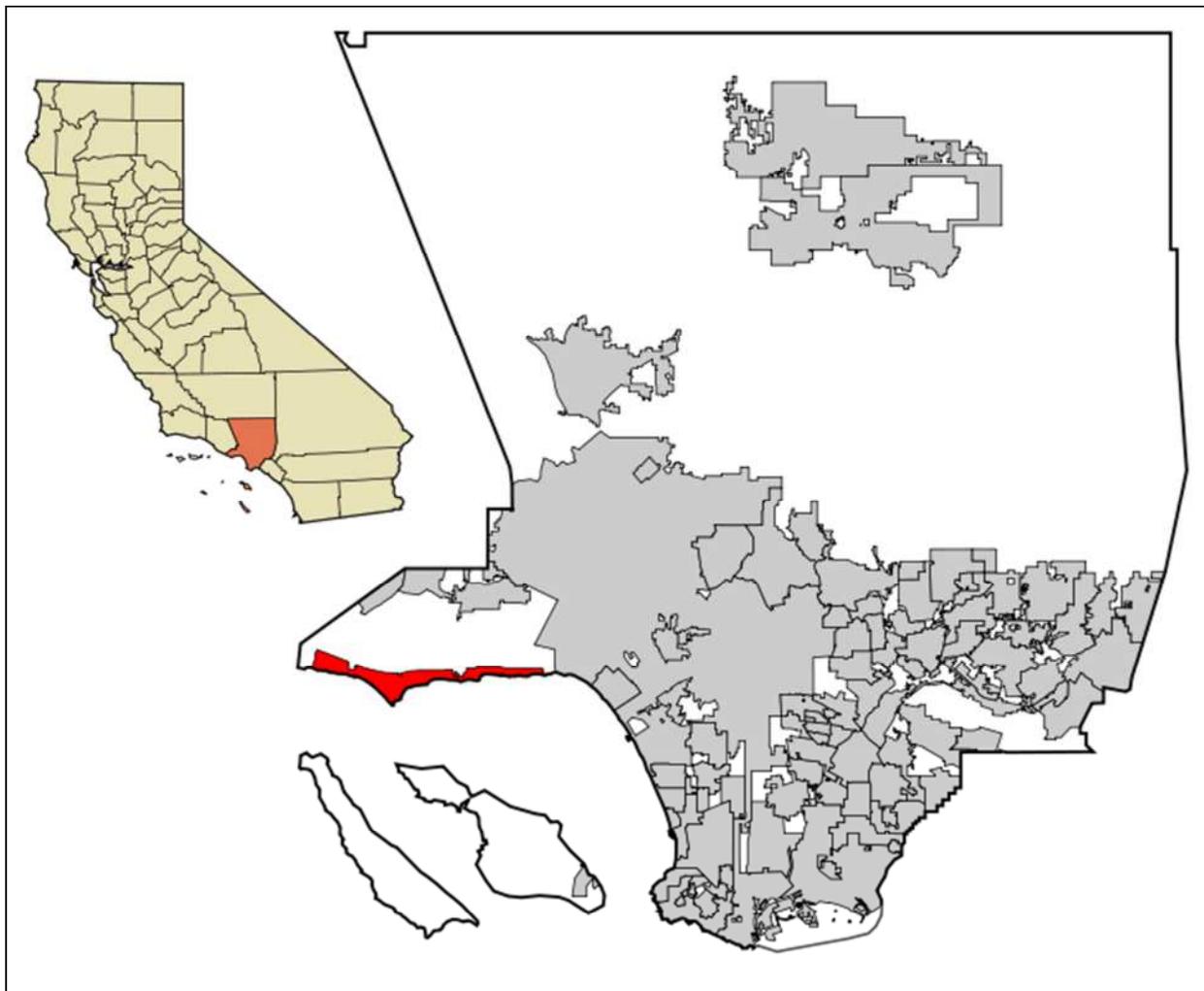
The Malibu area was settled in the 1890s by the Rindge Family, which owned the Rancho Topanga Malibu Sequit, a large ranch. Its remote location between the ocean and the mountains led to its small-town, rural residential community development pattern. Malibu has remained a primarily residential community. Commercial areas are limited to small neighborhood-serving and visitor-serving uses interspersed throughout the City, but located primarily in the Las Flores, Civic Center, Point Dume and Trancas areas.

### Climate/Topography

Malibu has a unique climate due to its location, which is wedged between the Santa Monica Mountains and the Pacific Ocean. Temperatures range from the low 50s to the mid-60s during the winter months and from the low 60s to mid-70s in the summer months. Average rainfall for the area is 13 inches per year, with the winter months characterized as wetter than summer months.

The geography of Malibu includes a wide variety of terrain changes including mesas, canyons and rugged cliffs facing sandy beaches. The landscape ranges from lush greenery with exotic plants to natural habitats consisting of endemic chaparral, scrub grasses, riparian woodlands, and wetlands. Malibu lies on the fringe of the Santa Monica Mountains, which is an extensive chaparral wilderness area. The City has three large deep gorges and canyons with extensive vegetation growth due to its many streams and creeks.

General Coordinates	
Latitude	34° 2' 16" North
Longitude	118° 41' 34" West



Map 10: Malibu Location Map

**Economic Activity**

Malibu is a residential community that is also a popular tourist destination. The City has 21 miles of coastline and its beaches are a main attraction. There are also parks owned and operated by the City, National Park Service, State of California, and the Santa Monica Mountains Conservancy / Mountains Recreation Conservation Authority in the Santa Monica Mountains.

Economic activity is one indicator of the potential losses that may be incurred in the event of a disaster. In addition to tourism and recreation, there are numerous retail locations along Pacific Coast Highway including the Malibu Civic Center area. Other service industries in Malibu include real estate, financial, health and beauty, medical, and construction. The following table lists the principal property tax payers in Malibu. In 2010, there were a total of 8,197 jobs in the City (SCAG Profile of the City of Malibu, May 2011).

***Malibu Principal Property Tax Payers***

Company	Taxable Assessed Value (thousands)	Percent of Total City Assessed Value
Hughes Research Laboratories, Inc.	\$92,173	0.85%
Malibu Realty LLC	\$66,514	0.62%
KW Malibu Colony Plaza LLC	\$64,734	0.60%
Malibu Retail Acquisition Co.	\$60,180	0.56%
Carlyle CP Malibu Limited Partnership	\$56,244	0.52%
2XMD Partners LLC	\$46,836	0.43%
Carbonview Limited LLC	\$46,445	0.43%
Howard & Nancy Marks	\$44,301	0.41%
Gerald W. Schwartz	\$41,794	0.39%
Warley Avenue Trust	\$41,794	0.30%
<b>Total</b>	<b>\$551,305</b>	<b>5.0%</b>

*Source Malibu 2010 Comprehensive Annual Financial Report*

**Table 33: Malibu Principal Property Tax Payers**

### Population Demographics

The following tables summarize the population and demographic groups at risk from natural disasters and other catastrophic events in Malibu.

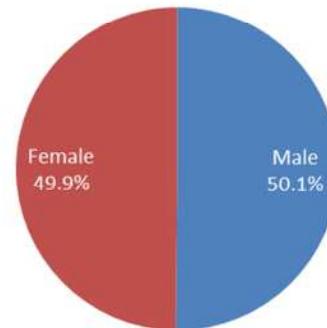
#### Sex and Age Distribution

Demographic Estimates		
Sex and Age	Estimate	Percent
<b>Total Population</b>	<b>12,645</b>	<b>100.0%</b>
Male	6,341	50.1%
Female	6,304	49.9%
Under 5 years	408	3.2%
5 to 9 years	639	5.1%
10 to 14 years	778	6.2%
15 to 19 years	781	6.2%
20 to 24 years	820	6.5%
25 to 29 years	443	3.5%
30 to 34 years	425	3.4%
35 to 39 years	574	4.5%
40 to 44 years	849	6.7%
45 to 49 years	1,125	8.9%
50 to 54 years	1,234	9.8%
55 to 59 years	1,142	9.0%
60 to 64 years	1,105	8.7%
65 to 69 years	718	5.7%
70 to 74 years	570	4.5%
75 to 79 years	415	3.3%
80 to 84 years	314	2.5%
85 years and over	305	2.4%
Median age (years)	47.8	

Source U.S. Census Bureau 2010 Census

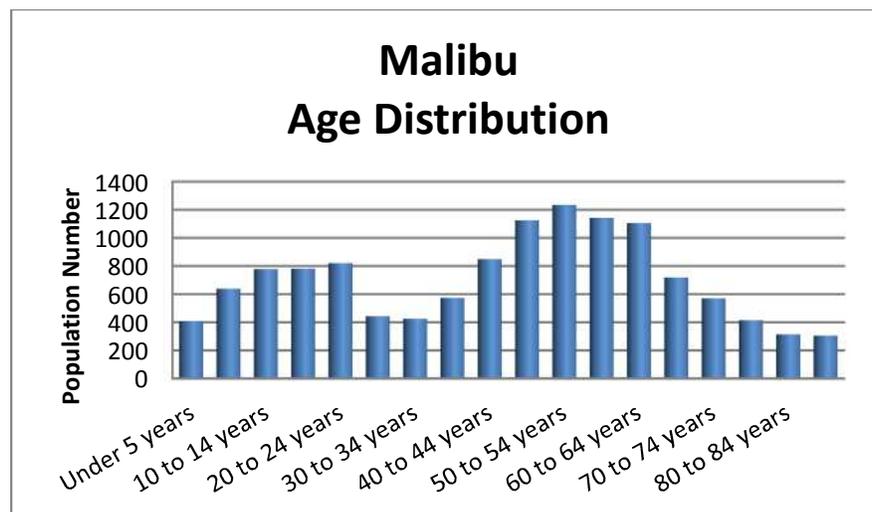
**Table 34: Malibu Sex and Age Demographics**

### Malibu Female to Male Distribution



**Figure 33: Malibu Female to Male Distribution**

The average age of residents in Malibu is 47.8 with males (50.1%) outnumbering females (49.9%). Mitigation planning must consider the unique needs of population groups, for example those under 15 years of age and those over 70 years of age.



**Figure 34: Malibu Age Distribution**

**Race Composition**

One aspect of mitigation planning is the need to address the language (communications) needs of local populations. This includes the ability to distribute information and provide notification in the event of a regional emergency.

For Malibu, an estimated 4.2% of the population speaks languages other than English (including English and another language or non-English only) with nearly 20% of these speaking English “less than very well”.

Race	Population	Percent of Total
<b>Total Population</b>	<b>12645</b>	<b>100.0%</b>
White Alone	11,046	87.4%
Hispanic or Latino (of any race)	769	6.1%
Black or African American alone	137	1.1%
American Indian and Alaska Native alone	17	0.1%
Asian alone	323	2.6%
Native Hawaiian and Other Pacific Islander Alone	15	0.1%
Some other race alone	18	0.1%
Two or more races	320	2.5%

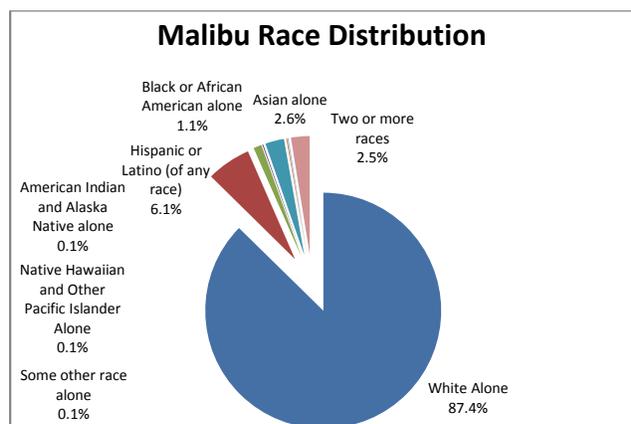
US Census Bureau 2010 Census

**Table 35: Malibu Race Composition**

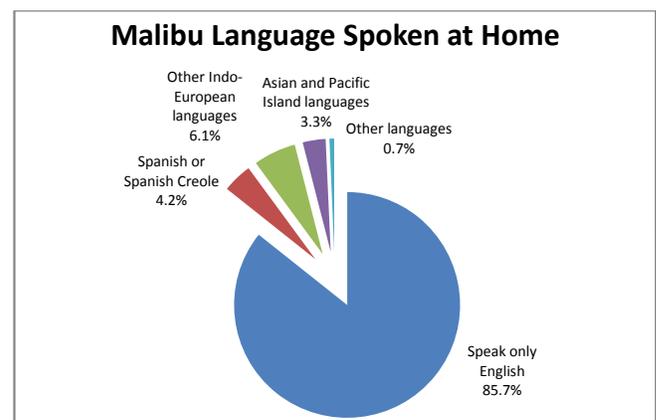
**Languages Spoken at Home**

Subject	Total Estimate	Speak English "very well" Estimate	Speak English less than "very well" Estimate
<b>Population 5 years and over</b>	<b>12,296</b>	<b>97.2%</b>	<b>2.8%</b>
Speak only English	85.8%	(X)	(X)
Speak a language other than English	4.2%	80.1%	19.9%
Spanish or Spanish Creole	6.1%	83.0%	17.0%
Other Indo-European languages	3.3%	90.1%	9.9%
Asian and Pacific Island languages	0.7%	57.0%	43.0%
Other languages	85.8%	85.2%	14.8%

**Table 36: Malibu Languages Spoken at Home**



**Figure 35: Malibu Race Distribution**



**Figure 36: Malibu Languages Spoken at Home**

**Income Distribution**

Household income is a factor for mitigation planning since population groups in lower income ranges are less able to cope with the impact of disasters.

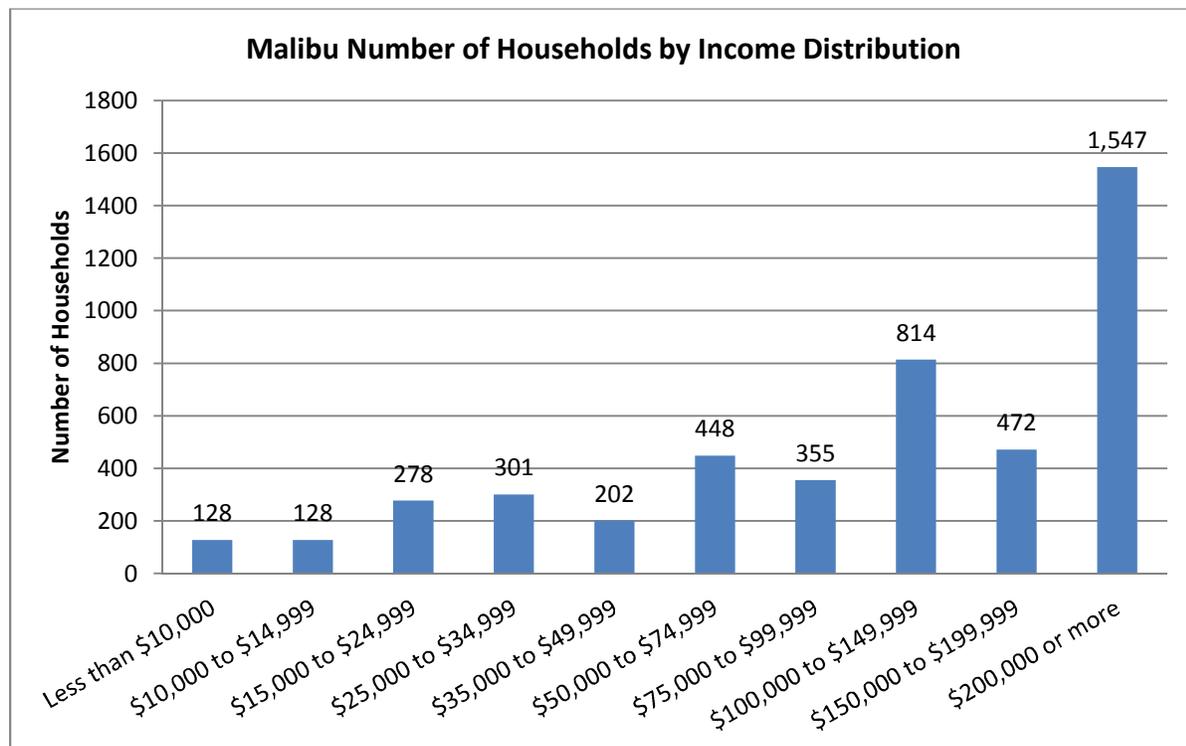
Furthermore, the availability of household funds can have a direct impact on the level of individual and family hazard mitigation activities and emergency preparedness.

While the mean household income in Malibu is over \$236,370, there are a limited number of households in Malibu with incomes less than \$25,000, near the U.S. poverty level of \$22,350 for a family of four as defined by the 2011 HHS Poverty Guidelines, by the U.S. Department of Health & Human Services.

Income and Benefits (in 2009 Inflation-Adjusted Dollars)		
	Estimate	Percent
<b>Total Household Income</b>	4,673	<b>100.0%</b>
Less than \$10,000	128	2.7%
\$10,000 to \$14,999	128	2.7%
\$15,000 to \$24,999	278	5.9%
\$25,000 to \$34,999	301	6.4%
\$35,000 to \$49,999	202	4.3%
\$50,000 to \$74,999	448	9.6%
\$75,000 to \$99,999	355	7.6%
\$100,000 to \$149,999	814	17.4%
\$150,000 to \$199,999	472	10.1%
\$200,000 or more	1,547	33.1%
Median household income (dollars)	125,202	(X)
Mean household income (dollars)	236,370	(X)

Source U.S. Census Bureau 2006-2010 American Community Survey Estimate

**Table 37: Malibu Income and Benefits (2009 Inflation Adjusted Dollars)**



**Figure 37: Malibu Income Distribution**

## Land Use

Malibu is a beachfront community with the majority of residents living along Pacific Coast Highway (PCH) or in small residential communities that gain primary access from PCH. Designated as State Route 1, PCH is the major four lane arterial roadway traversing the City from east to west. PCH is a major transportation corridor with thousands of daily commuters. Beach traffic substantially increases congestion along PCH during the summer months.

The Santa Monica Mountains serve as a natural boundary to the north. A number of residences are interspersed throughout the Santa Monica Mountains along canyons and hillsides within a mile or more inland. Furthermore, the City has experienced a great deal of 'in-fill' development, which has increased the population density, creating greater service loads on the existing infrastructure including roads, water supplies, sewer services and storm drains. In-fill development is defined as development of vacant or partially developed parcels which are surrounded by or in close proximity to areas that are substantially or fully developed.

## Housing Characteristics

The following housing statistics provide a summary of the numbers and types of housing units that are at risk if a natural disaster or other catastrophic event were to occur in Malibu. Housing data includes: Housing Occupancy, Housing Unit Change from 2000 to 2009, Number of Structures Built by Year, Home Values, and Home Value Distribution. For Malibu, the number of multi-unit structures has increased while the number of single structures has decreased since 2000.

Housing Occupancy	Estimate	Percent
<b>Total Housing Units</b>	6,252	100.0%
Occupied housing units	4,673	74.7%
Vacant housing units	1,579	25.3%

Source U.S. Census Bureau 2006-2010 American Community Survey

**Table 38: Malibu Housing Occupancy**

Units In Structure	2010		2000		Change	
	Estimated Number	Percent of Units	Number	Percent of Units	Difference 2010-2000	Percent Change
<b>Total Housing Units</b>	6,252	100.0%	<b>6,955</b>	<b>100%</b>	<b>(703)</b>	-10.1%
1-unit, detached	4,351	69.6%	5,191	74.6%	(840)	-16.2%
1-unit, attached	491	7.9%	974	14.0%	(483)	-49.6%
2 units	47	0.7%	7	0.1%	40	571.4%
3 or 4 units	177	2.8%	168	2.4%	9	5.4%
5 to 9 units	145	2.3%	126	1.8%	19	15.1%
10 to 19 units	193	3.1%	140	2.0%	53	37.9%
20 or more units	355	5.7%	349	5.0%	6	1.7%
Mobile home	493	7.9%	0	0.0%	493	N/A
Boat, RV, van, etc.	0	0.00%	0	0.0%	-	0.0%

Source: US Census Bureau 2006 - 2010 ACS and US Census Bureau 2000 Census

**Table 39: Malibu Units in Structure Change from 2000 to 2010**

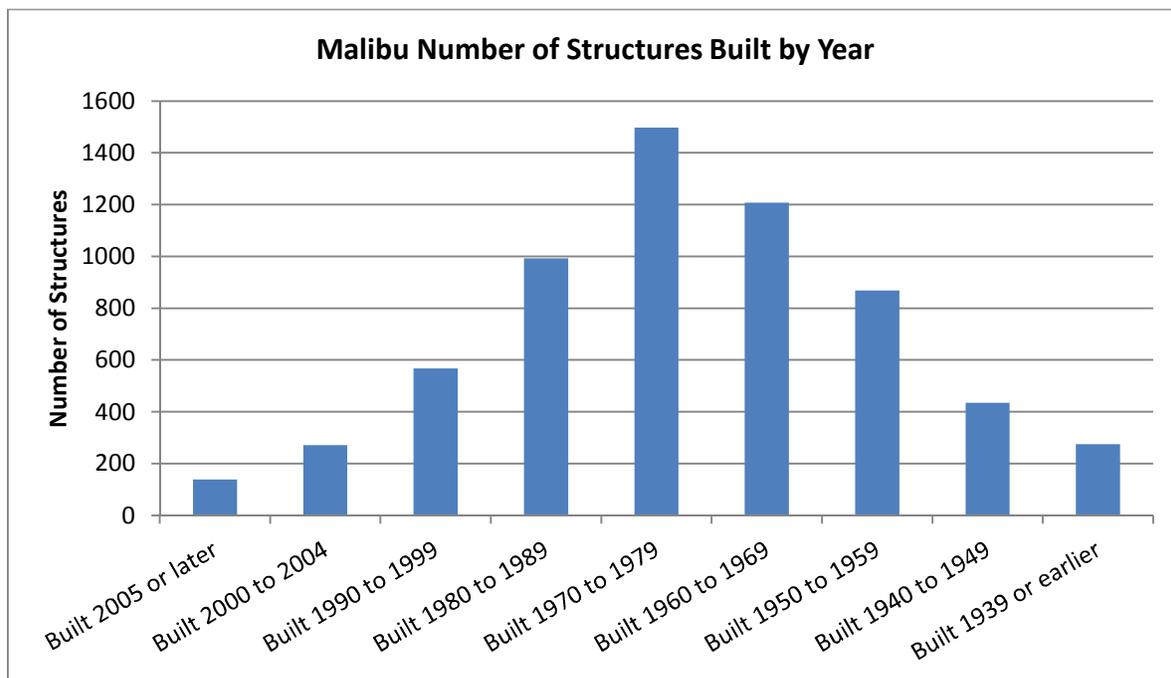
In terms of risk and disaster mitigation, older structures that have not been retrofitted or otherwise improved may be more susceptible to damage or destruction due to age and the fact that older building codes were less stringent than those required for newer structures. As a result, the inventory of older structures is a consideration when developing mitigation plans.

In Malibu, 84.4% of structures (5,276) were built prior to 1990 and 68.5% (4,283) before 1980.

Year Structure Built	Estimate	Percent
<b>Total housing units</b>	<b>6,252</b>	<b>100.0%</b>
Built 2005 or later	138	2.2%
Built 2000 to 2004	271	4.3%
Built 1990 to 1999	567	9.1%
Built 1980 to 1989	993	15.9%
Built 1970 to 1979	1,498	24.0%
Built 1960 to 1969	1,207	19.3%
Built 1950 to 1959	868	13.9%
Built 1940 to 1949	435	7.0%
Built 1939 or earlier	275	4.4%

Source: U.S. Census Bureau 2006-2010 American Community Survey

**Table 40: Year Structures Built in Malibu**



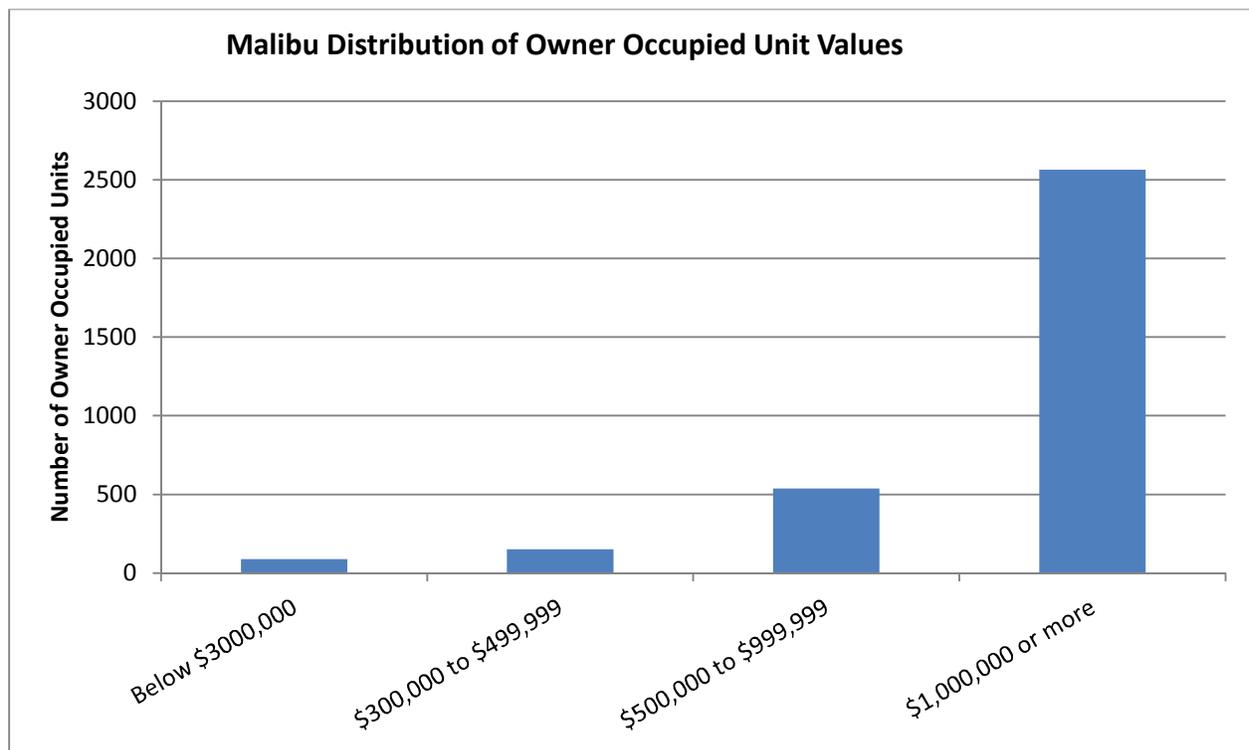
**Figure 38: Malibu Number of Structures Built by Year**

Home values are an important consideration when evaluating the potential dollar loss due to disasters. These values can also be used to assess the cost/benefit of mitigation activities and planning. In Malibu, the majority of Owner Occupied Units are valued over \$1,000,000. Consequently the potential dollar losses from a disaster can rapidly escalate – illustrating the need for mitigation planning.

Value	Estimate	Percent
<b>Owner-Occupied Units</b>	<b>3,340</b>	<b>100.0%</b>
Less than \$50,000	44	1.3%
\$50,000 to \$99,999	10	0.3%
\$100,000 to \$149,999	0	0.0%
\$150,000 to \$199,999	11	0.3%
\$200,000 to \$299,999	23	0.7%
\$300,000 to \$499,999	151	4.5%
\$500,000 to \$999,999	537	16.1%
\$1,000,000 or more	2,564	76.8%
Median (dollars)	\$1,000,000+	

Source U.S. Census Bureau 2006--2010 American Community Survey

**Table 41: Malibu Home Value Distribution**



**Figure 39: Malibu Distribution of Owner Occupied Unit Values**

## **Emergency Preparedness**

The potential impacts of natural hazards associated with Malibu's unique terrain makes its environment and population vulnerable to natural disasters. Earthquakes, landslides, winter storms and floods can take their toll on Malibu. However, the most dangerous and perennial of hazards is wildfire. Driven by the dry Santa Ana winds in the summer months, wind speeds can reach up to 70 mph. As a result, small spot fires can quickly explode into huge firestorms capable of consuming entire communities.

### ***Emergency Preparedness Program***

In response to the numerous floods, fires, and storms experienced during the first decade of incorporation, between 1991 and 2001, the City created an Emergency Preparedness Program to train personnel and to develop an emergency response protocol in preparation for future disasters.

Services conducted under the Emergency Preparedness program include an annual training exercise to familiarize staff and volunteers with the functions of the Malibu Emergency Operations Center (EOC) and their individual roles under various potential disaster scenarios. Under this program, the City has also implemented an emergency decal program for residents, designed to facilitate community access in the event of major road closures.

### ***City of Malibu's Highway Advisory Radio System (HARS)***

The City of Malibu is licensed by the FCC to operate a Highway Advisory Radio System (HARS) along the Pacific Coast Highway (PCH) in Malibu. The system provides a continuous radio broadcast which can be received on 1620 AM along the coastline and the Pacific Coast Highway. The intention of the system is to provide advisories of traffic conditions or other emergencies that may affect travelers along the PCH. In addition to emergency and road alerts, the system may be used to provide information on other public-safety related resources or incidents. The system is programmed by the City's Emergency Services Coordinator.

Through the Community TV program, the City of Malibu maintains Channel 3 as a Government access channel to bring the most current community information to local cable subscribers. Cablecasts include live City Council and Planning Commission meetings, as well as taped coverage of community events.

### **Public Involvement Groups**

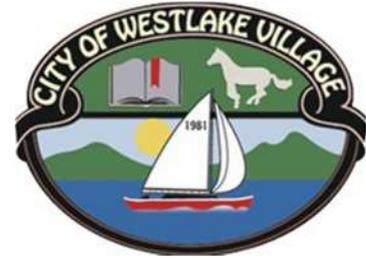
The City has over 60 homeowners associations that are very active in public services. In fact, residents sometimes hold Community Emergency Response Team (CERT) training meetings in their homes.

In addition, the City sponsors the Malibu Volunteer Patrol (MVP), a group of residents trained to assist law enforcement personnel. The volunteers work various assignments including patrolling the community, assisting with dissemination of information to the community and providing community services. The involvement of members of the community working alongside Sheriff's Department personnel improves the communication and understanding between the two groups.

The City participates in the Community Emergency Response Team Program (CERT). Under the CERT Program, volunteers are provided with a FEMA-approved 20 hour program that involves communication with authorities in the event of a large scale emergency. The system appoints neighborhood block captains and sector leaders who utilize radio communications systems to communicate with the City. The City holds CERT trainings four times per year.

## Westlake Village

Westlake Village is a master-planned community located on the western edge of Los Angeles County in the Conejo Valley. It borders the City of Thousand Oaks and Ventura County to the west and the Santa Monica Mountains to the south. It is 40 miles west of downtown Los Angeles along the US Highway 101 corridor. With a total land area of 5.62 square miles, the community supports a population of approximately 8,270. Westlake Village is comprised of a mixture of residential and commercial areas with approximately 850 business and light industrial firms.



### Brief History

The City of Westlake Village is located on a portion of the former Albertson Ranch, whose cattle-grazing operation on the land ended in the mid-1960's when construction of Westlake Village commenced. The ranch was a portion of the former El Conejo land grant, the original boundary lines that form the City's southern and eastern limits today. In 1966 the American Hawaiian Steamship Company developed Westlake Village as a master-planned community. Responsibilities subsequently passed to the Prudential Insurance Company.

The original community straddled the Los Angeles-Ventura County line. The Ventura portion was incorporated as part of the City of Thousand Oaks in 1968. However, the build-out of the two halves has proceeded in a coordinated and interlinked manner, relatively indifferent to the corporate limits which separate them.

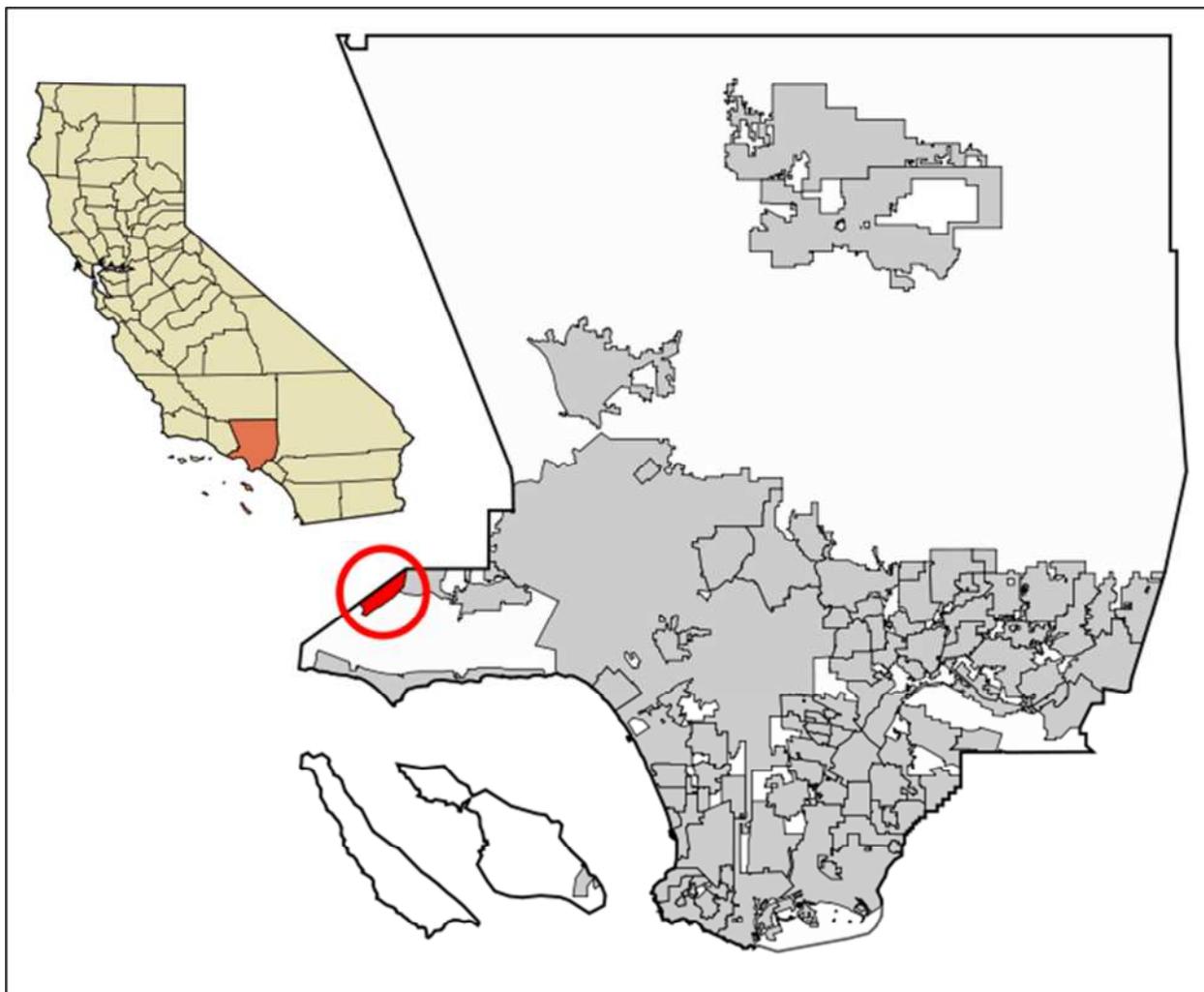
The City of Westlake Village was incorporated on December 11, 1981, as the 82<sup>nd</sup> city in Los Angeles County. As a master-planned community, Westlake Village is characterized by its wide, tree-lined boulevards, its cohesive, yet identifiable neighborhoods with interconnected greenbelts, its lakeside parks and promenades, and its diverse office and commercial centers.

The City of Westlake Village is a general law municipality, operating on a contract basis in which many of the day-to-day services of local government are provided by public and private agencies. The residents of Westlake Village elect a five-member City Council to oversee City operations and guide future development of the community. Council members are elected to serve a four-year term. Each year the Council selects one of its members to serve as Mayor and Mayor Pro Tem.

### Climate/Topography

The climate in Westlake Village is characterized by mild winters with temperatures ranging from the low 40's to the high 60's, and warm summers with temperatures ranging from the low 60's to the high 90's. Average annual rainfall is 14.4 inches with the greatest portion of precipitation occurring in the winter months. The City averages 900 feet above sea level, and is framed by the Simi Hills to the north and the Santa Monica Mountains to the south.

General Coordinates	
Latitude	34° 8' 31" North
Longitude	118° 49' 10" West



Map 11: Westlake Village Location Map

### Economic Activity

There are approximately 850 commercial and light industrial firms within the Westlake Village City limits. The city is located along the “Technology Corridor” that runs along US Highway 101 from Calabasas to the Oxnard plain. In addition, there are a number of business parks and the city is home to several company headquarters including the Dole Food Company.

#### *Westlake Village Principal Employers*

Company	Employees	Percent of Total City Employment
Bank of America	755	8.95%
Four Seasons Hotel	570	6.76%
Homestore, Inc.	450	5.33%
Guitar Center, Inc.	400	4.74%
State Farm Insurance	350	4.15%
Dole Food Co., Inc.	312	3.70%
Farmers Insurance	300	3.56%
Costco Wholesale Corp	300	3.56%
K-Swiss, Inc.	225	2.67%
Securities Security Service	250	2.96%
<b>Total</b>	<b>3,912</b>	<b>46.37%</b>
<b>Total City Employment</b>	<b>8,436</b>	<b>100.00%</b>

*Source Westlake Village 2010 Comprehensive Annual Financial Report and SCAG Profile of the City of Westlake Village May 2011*

**Table 42: Westlake Village Principal Employers**

#### *Westlake Village Principal Property Tax Payers*

Company	Taxable Assessed Value	Percent of Total City Assessed Value
Dole Food Company	\$173,545,792	5.87%
Westlake Wellbeing Properties	\$67,152,759	2.27%
Lindero Headquarters Company, Inc.	\$57,665,111	1.95%
Russell Ranch Road LLC	\$56,607,542	1.91%
Teachers Insurance & Annuity Associates	\$54,651,994	1.85%
Bank of America NA	\$49,330,000	1.67%
Arden Realty Limited Partnership	\$48,040,000	1.62%
CH Realty IV North Ranch Limited Partnership	\$39,223,080	1.33%
Guitar Center, Inc.	\$35,051,076	1.19%
First Security Bank	\$26,505,380	0.90%
<b>Total</b>	<b>\$607,772,734</b>	<b>11.73%</b>
Total Property Tax Assessed Value	\$2,956,330,678	

*Source Westlake Village 2010 Comprehensive Annual Financial Report*

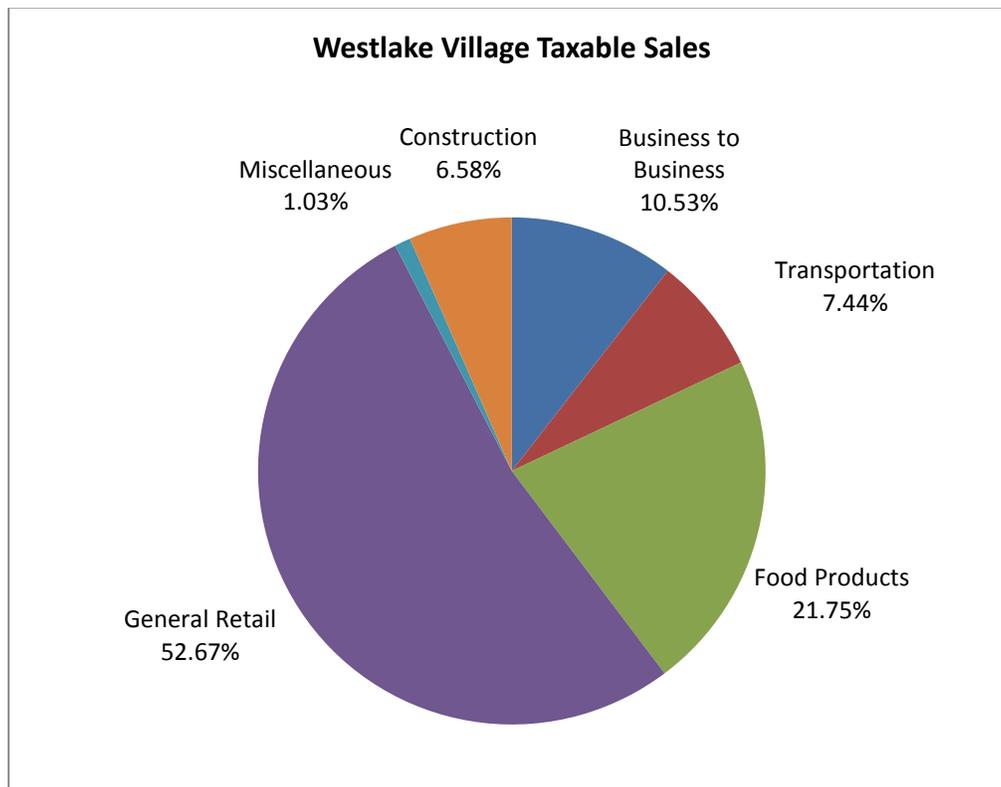
**Table 43: Westlake Village Principal Property Tax Payers**

**Westlake Village Taxable Sales**

Category	Taxable Sales (thousands)	Percent of Total
Business to Business	\$256	10.53%
Construction	\$181	7.44%
Food Products	\$529	21.75%
General Retail	\$1,281	52.67%
Miscellaneous	\$25	1.03%
Transportation	\$160	6.58%
<b>Total</b>	<b>\$2,432</b>	<b>100.00%</b>

*Source Westlake Village 2009 Comprehensive Annual Financial Report*

**Table 44: Westlake Village Taxable Sales**



**Figure 40: Westlake Village Taxable Sales Percentage by Category**

### Population and Demographics

The following tables summarize the population and demographic groups at risk from a disaster in Westlake Village.

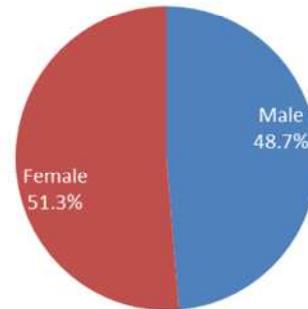
#### Sex and Age Distribution

Demographic Estimates		
Sex and Age	Estimate	Percent
<b>Total Population</b>	<b>8,270</b>	<b>100.0%</b>
Male	4,025	48.7%
Female	4,245	51.3%
Under 5 years	295	4.4%
5 to 9 years	443	6.3%
10 to 14 years	611	7.8%
15 to 19 years	567	8.1%
20 to 24 years	300	5.2%
25 to 29 years	226	4.6%
30 to 34 years	235	4.5%
35 to 39 years	342	5.5%
40 to 44 years	577	7.3%
45 to 49 years	718	9.5%
50 to 54 years	780	9.5%
55 to 59 years	783	9.0%
60 to 64 years	636	7.0%
65 to 69 years	521	4.4%
70 to 74 years	407	2.5%
75 to 79 years	346	1.6%
80 to 84 years	241	1.2%
85 years and over	242	1.6%
Median age (years)	48.7	

Source U.S. Census Bureau 2010 Census

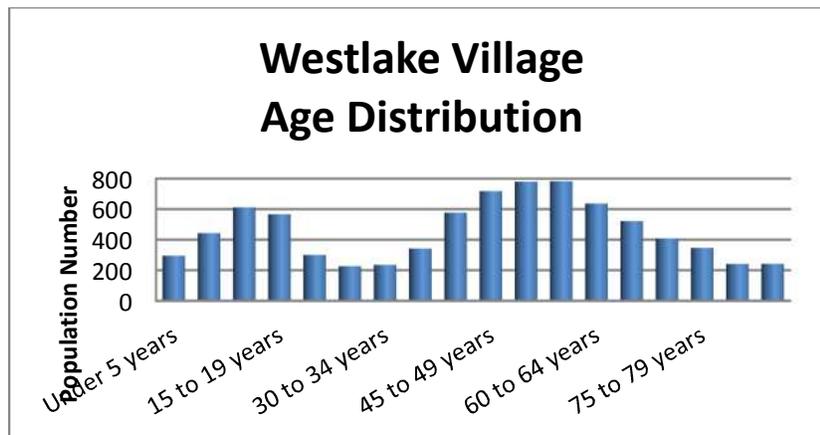
**Table 45: Westlake Village Sex and Age Demographics**

#### Westlake Village Female to Male Distribution



**Figure 41: Westlake Village Female to Male Distribution**

The average age of residents in Westlake Village is 48.7 with females (51.3%) outnumbering males (48.7%). Mitigation planning must consider the unique needs of population groups, for example those under 15 years of age and those over 70 years of age.



**Figure 42: Westlake Village Age Distribution**

**Race Composition**

One aspect of mitigation planning is the need to address the language (communications) needs of local populations. This includes the ability to distribute information and provide notification in the event of a regional emergency. For Westlake Village, an estimated 19% of the population speaks languages other than English (including English and another language or non-English only) with more than a quarter of these speaking English “less than very well”.

Race	Population	Percent of Total
<b>Total Population</b>	<b>8270</b>	<b>100.0%</b>
White Alone	6940	83.9%
Hispanic or Latino (of any race)	533	6.4%
Black or African American alone	97	1.2%
American Indian and Alaska Native alone	9	0.1%
Asian alone	485	5.9%
Native Hawaiian and Other Pacific Islander Alone	11	0.1%
Some other race alone	21	0.3%
Two or more races	174	2.1%

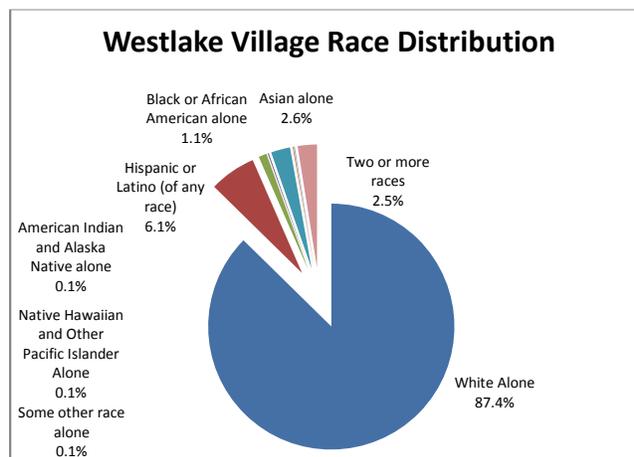
US Census Bureau 2010 Census

**Table 46: Westlake Village Race Composition**

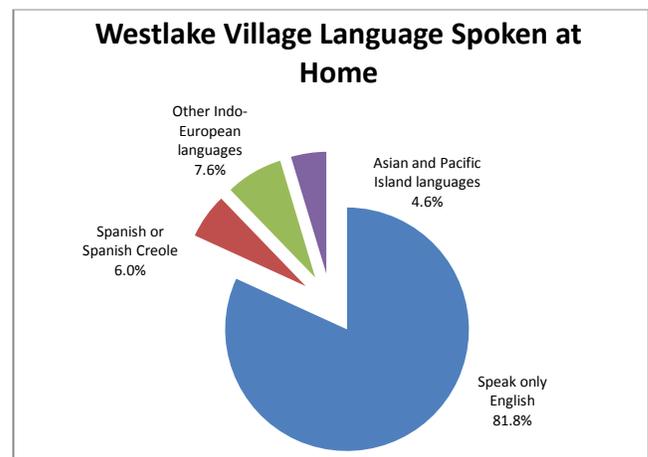
**Languages Spoken at Home**

Subject	Total Estimate	Speak English "very well" Estimate	Speak English less than "very well" Estimate
<b>Population 5 years and over</b>	<b>8,003</b>	<b>94.5%</b>	<b>5.5%</b>
Speak only English	81.0%	(X)	(X)
Speak a language other than English	19.0%	71.2%	28.8%
Spanish or Spanish Creole	5.9%	83.3%	16.7%
Other Indo-European languages	7.5%	61.7%	38.3%
Asian and Pacific Island languages	4.6%	67.2%	32.8%
Other languages	1.0%	88.9%	11.1%

**Table 47: Westlake Village Languages Spoken at Home**



**Figure 43: Westlake Village Race Distribution**



**Figure 44: Westlake Village Languages Spoken at Home**

**Income Distribution**

Household income is a factor for mitigation planning since population groups in lower income ranges are less able to cope with the impact of disasters.

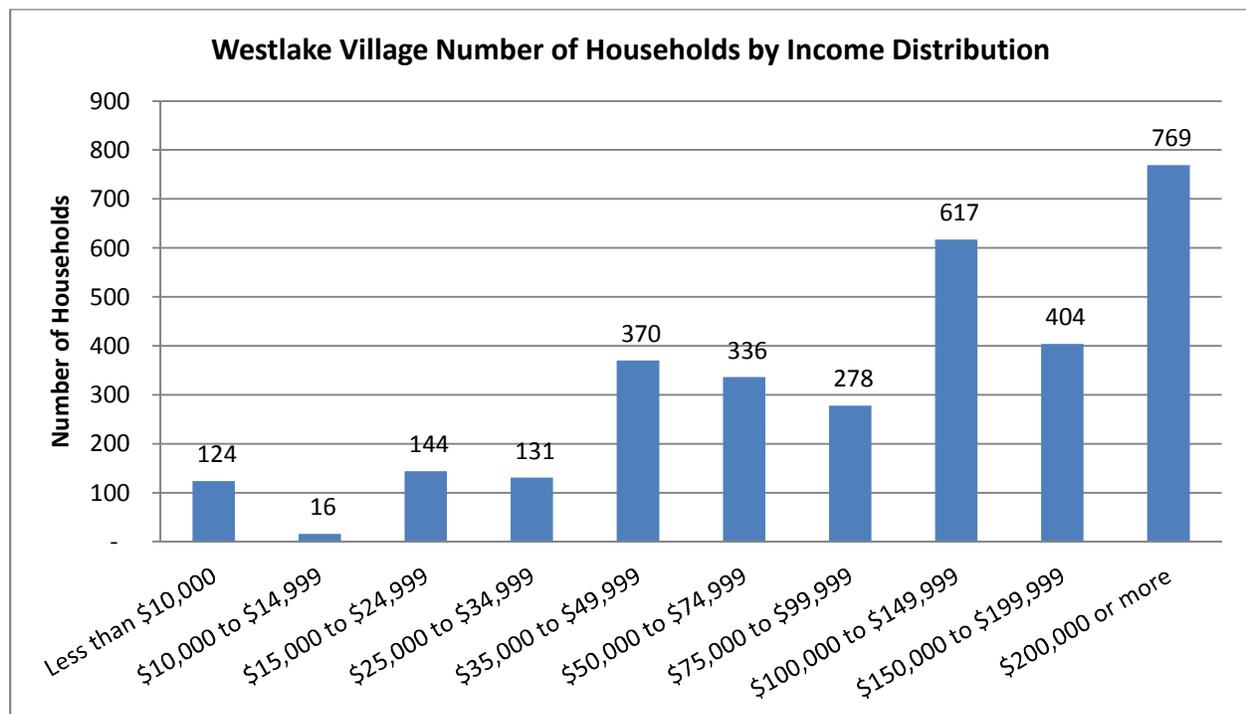
Furthermore, the availability of household funds can have a direct impact on the level of individual and family hazard mitigation activities and emergency preparedness.

In Westlake Village, while the mean household income is over \$162,246 there are a limited number of households with incomes less than \$25,000, near the U.S. poverty level of \$22,350 for a family of four as defined by the 2011 HHS Poverty Guidelines, by the U.S. Department of Health & Human Services.

<b>Income and Benefits (in 2009 Inflation-Adjusted Dollars)</b>		
	<b>Estimate</b>	<b>Percent</b>
<b>Total Household Income</b>	3,189	100.0%
Less than \$10,000	124	3.9%
\$10,000 to \$14,999	16	0.5%
\$15,000 to \$24,999	144	4.5%
\$25,000 to \$34,999	131	4.1%
\$35,000 to \$49,999	370	11.6%
\$50,000 to \$74,999	336	10.5%
\$75,000 to \$99,999	278	8.7%
\$100,000 to \$149,999	617	19.3%
\$150,000 to \$199,999	404	12.7%
\$200,000 or more	769	24.1%
Median household income (dollars)	116,213	(X)
Mean household income (dollars)	162,246	(X)

Source U.S. Census Bureau 2006-2010 American Community Survey Estimate

**Table 48: Westlake Village Income and Benefits (2009 Inflation Adjusted Dollars)**



**Figure 45: Westlake Village Income Distribution**

**Land Use**

Westlake Village is a master-planned community which began development in 1966. The City is centered around a man-made lake which straddles the Los Angeles and Ventura County line. Westlake Village encompasses twenty individual neighborhoods, with active homeowners' associations to promote and maintain architectural standards. The City has an array of housing types including: townhomes, condominiums, mobile homes, single-family and lakefront residences, and view-oriented estates. In addition, within the Westlake Village city limits are approximately 850 commercial and light industrial businesses. There are a number of business parks and the city hosts several company headquarters.

**Housing Characteristics**

The following housing statistics provide a summary of the numbers and types of housing units that are at risk if a disaster were to occur in Westlake Village. Housing data includes: Housing Occupancy, Units in Structure Change from 2000 to 2009, Number of Structures Built by Year, Home Values, and Home Value Distribution. In Westlake Village, there has been an overall decrease in structures since 2000 with the exception of single unit detached and mid-size 10 to 19 unit structures.

Housing Occupancy	Estimate	Percent
<b>Total Housing Units</b>	3,322	100.0%
Occupied housing units	3,189	96.0%
Vacant housing units	133	4.0%

*Source U.S. Census Bureau 2006-2010 American Community Survey*

**Table 49: Westlake Village Housing Occupancy**

Units In Structure	2010		2000		Change	
	Estimated Number	Percent of Units	Number	Percent of Units	Difference 2010-2000	Percent Change
<b>Total Housing Units</b>	3,322	100.0%	<b>3,423</b>	<b>100%</b>	<b>(101)</b>	-3.0%
1-unit, detached	2,326	70.0%	2,254	66%	72	3.2%
1-unit, attached	615	18.5%	622	18%	(7)	-1.1%
2 units	0	0.0%	21	1%	(21)	-100.0%
3 or 4 units	107	3.2%	141	4%	(34)	-24.1%
5 to 9 units	46	1.4%	114	3%	(68)	-59.6%
10 to 19 units	83	2.5%	68	2%	15	22.1%
20 or more units	20	0.6%	24	1%	(4)	-16.7%
Mobile home	125	3.8%	179	5%	(54)	N/A
Boat, RV, van, etc.	0	0.0%	0	0.00%	-	0.0%

*Source: US Census Bureau 2006 - 2010 ACS and US Census Bureau 2000 Census*

**Table 50: Westlake Village Units in Structure Change from 2000 to 2010**

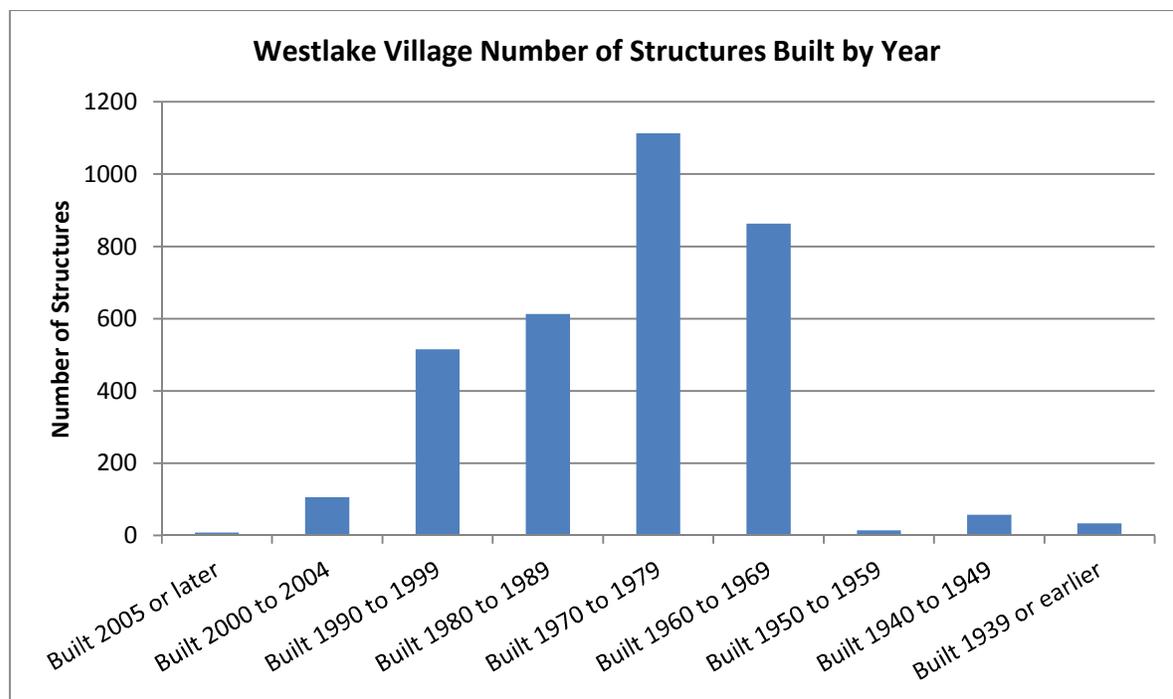
In terms of risk and disaster mitigation, older structures that have not been retrofitted or otherwise improved may be more susceptible to damage or destruction due to age and the fact that older building codes were less stringent than those required for newer structures. As a result the inventory of older structures is a consideration when developing mitigation plans.

In Westlake Village, 81.1% of structures (2,694) were built prior to 1990 and 62.6% (2,081) before 1980.

Year Structure Built	Estimate	Percent
<b>Total housing units</b>	<b>3,322</b>	<b>100.0%</b>
Built 2005 or later	8	0.2%
Built 2000 to 2004	105	3.2%
Built 1990 to 1999	515	15.5%
Built 1980 to 1989	613	18.5%
Built 1970 to 1979	1,114	33.5%
Built 1960 to 1969	863	26.0%
Built 1950 to 1959	14	0.4%
Built 1940 to 1949	57	1.7%
Built 1939 or earlier	33	1.0%

Source: U.S. Census Bureau 2006-2010 American Community Survey

**Table 51: Year Structures Built in Westlake Village**



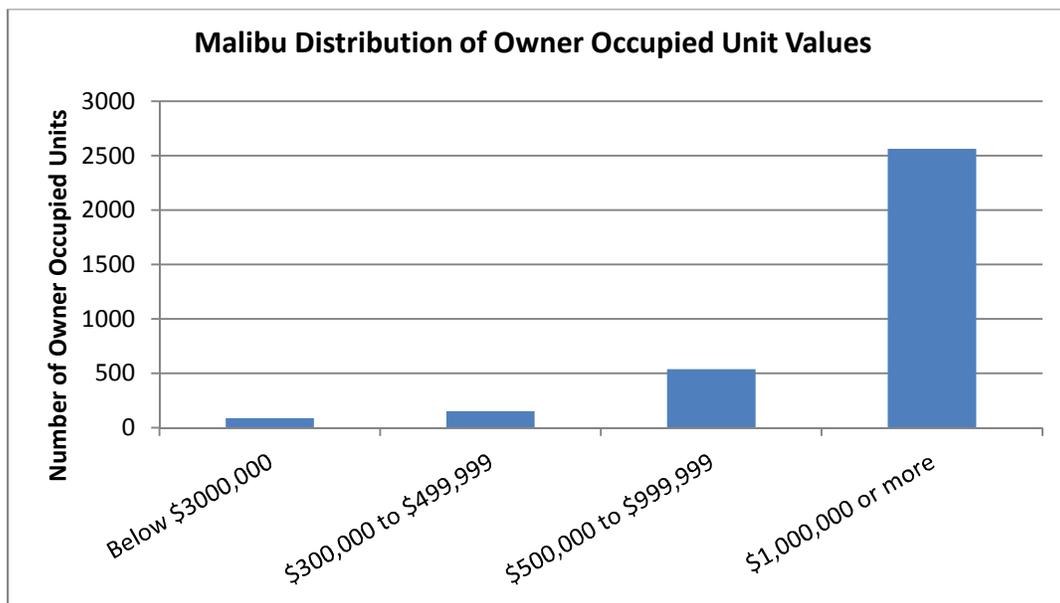
**Figure 46: Westlake Village Number of Structures Built by Year**

Home values are an important consideration when evaluating the potential dollar loss due to disasters. These values can also be used to assess the cost/benefit of mitigation activities and planning. In Westlake Village, the majority of Owner Occupied Units are valued over \$1,000,000. Consequently the potential dollar losses from a disaster can rapidly escalate – illustrating the need for mitigation planning.

Value	Estimate	Percent
<b>Owner-Occupied Units</b>	<b>3,340</b>	<b>100.0%</b>
Less than \$50,000	44	1.3%
\$50,000 to \$99,999	10	0.3%
\$100,000 to \$149,999	0	0.0%
\$150,000 to \$199,999	11	0.3%
\$200,000 to \$299,999	23	0.7%
\$300,000 to \$499,999	151	4.5%
\$500,000 to \$999,999	537	16.1%
\$1,000,000 or more	2,564	76.8%
Median (dollars)	\$1,000,000+	

Source U.S. Census Bureau 2006--2010 American Community Survey

**Table 52: Westlake Village Home Value Distribution**



**Figure 47: Westlake Village Distribution of Owner Occupied Unit Values**

## **Emergency Preparedness**

The City of Westlake Village contracts with the Los Angeles County Sheriff for local public safety services primarily through the Malibu/Lost Hills Sheriff Station. Fire protection is through the Los Angeles County Fire Protection District with Fire Station #144 providing suppression, rescue, and fire prevention services. Westlake Village also provides Emergency Preparedness information to the public via the Westlake Village website.

### ***Standard Emergency Management System***

The City of Westlake Village has adopted California's Standardized Emergency Management System (SEMS) for managing the response to a multi-agency and multi-jurisdiction emergency. SEMS also serves to facilitate communications and coordination among all levels of the response system and among all responding agencies.

### ***Public Involvement Groups***

Public input and participation plays an important role in Westlake Village's emergency preparedness efforts. Residents participate on advisory boards and committees (e.g., the Emergency Preparedness Event Committee) as well as the Westlake Village Disaster Response Team.

### ***Disaster Response Team***

Since 1994 the City of Westlake Village has maintained a volunteer disaster response team comprised of local residents. The Westlake Village Disaster Response Team (WLVDRRT) is activated in the event of a disaster and functions to aid local neighborhoods and assist emergency response personnel. An order for activation can come from the City Council, the City Manager, the Sheriff's Department or the Fire Department.

The WLVDRRT also provides community disaster preparedness education by conducting basic training classes for residents. Residents who attend the basic training are better prepared to protect themselves, their families, and their businesses in the event of a disaster. The intent is that for every person who attends this training there will be one less person who will need aid during a disaster.

### ***Volunteers in Policing***

The City of Westlake Village enhances local law enforcement services through the City's Volunteers in Policing Program. The program consists of a core group of volunteers who are sponsored by the City of Westlake Village and are trained by the Malibu/Lost Hills Sheriff's Station. Westlake Village provides a marked vehicle, uniforms, and specialized equipment. The program volunteers provide a variety of services including patrolling neighborhoods and shopping centers, performing patrol checks of businesses, checking on the homes of residents when they are on vacation, and responding to related civilian requests. In addition, the volunteer patrol members serve as a mobile Neighborhood Watch for the community.

***Email Notifications and/or RSS Feeds***

The City of Westlake Village provides the public with the opportunity to subscribe to an automated Email notification/RSS feed. The system allows the City to quickly disseminate information to the public.

***WVTV***

Westlake Village TV (Channel 10) provides a means for communicating to the public on a routine basis as well as during emergencies. Streaming (live and archived) media is available via the City's website.

## SECTION 3. RISK ASSESSMENT

The goal of mitigation is to reduce the future impacts of hazards. Hazards can result in injuries and the loss of life, cause property damage, disrupt the local economy, and force the expenditure of large amounts of public and private funds to assist with recovery. In order to focus efforts on the most likely and highest impact scenarios, mitigation must be based on a comprehensive Risk Assessment.

A Risk Assessment measures the potential loss from a hazard event by evaluating the vulnerability of buildings, infrastructure and people. It identifies the characteristics and potential consequences of hazards, how much of the community could be affected by a hazard, and the impact on community assets. Risk Assessments consist of:

- Hazard Identification and Risk Analysis
- Vulnerability Analysis / Loss Estimates

*Note: This Risk Assessment presents loss estimates and provides a foundation for evaluating mitigation measures should a real hazard event occur. The loss estimates are intended to support the decision making process for mitigation efforts.*

*It is important to note that the loss estimates calculated for this Risk Assessment used available data and methodologies and are approximate. These estimates should be used to understand the relative risk from hazards and potential losses and are not intended to be predictive of precise results.*

*Uncertainties are inherent in any loss estimation methodology arising in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from approximations and simplifications that are necessary in developing vulnerability estimates (e.g., risk of loss projections and relative likelihood of occurrence). These factors can result in a range of uncertainty in loss estimates produced by this analysis.*

## Disaster History

Emergencies and disasters can cause damage to the Las Virgenes-Malibu Region and its residents, businesses, infrastructure and the environment. These disasters can cause fatalities or injuries and expense in terms of response and recovery dollars.

The cities that comprise the Las Virgenes-Malibu Council of Governments have experienced natural disasters in the past and continue to have the potential for future events. While the risk of disasters cannot be eliminated, the effects can be reduced through a well-organized public education and awareness effort, preparedness and mitigation. In addition, communities must be prepared to provide efficient and effective response and recovery. Furthermore careful planning and collaboration among public agencies, private sector organizations, and citizens within the community can minimize the losses that result from disasters.

In order to illustrate the potential hazards to the region, a review of historical events can provide indicators for future threats to the area. The table below provides a summary of major disasters occurring in Los Angeles County since 1995.

Incident Period	Hazard Type	Disaster #	Counties Declared	Federal Declaration	Total Public Assistance Grants
January 16 - February 6, 2010	Severe Winter Storms, Flooding, and Debris and Mud Flows	FEMA-1884-DR	Calaveras County, Imperial County, Los Angeles County, Riverside County, San Bernardino County, Siskiyou County.	3/8/2010	\$15,604,176
November 13 - 28, 2008	Wildfire	FEMA-1810-DR	Los Angeles County, Orange County, Santa Barbara	11/18/2008	\$35,044,374
October 21, 2007 - March 31, 2008	Wildfire, flooding, mud flows, and debris flows directly related to the wildfires	FEMA-1731-DR	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Ventura	10/24/2007	\$170,094,288
January 11-17, 2007	Severe Freeze	FEMA-1689-DR	Fresno, Imperial, Kern, Los Angeles, Monterey, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Tulare, Ventura	3/13/2007	approx. \$23,000,000
February 16 - 23, 2005	Severe Storms, Flooding, Landslides, and Mud and Debris Flows	FEMA-1585-DR	Los Angeles, Orange, Riverside, Ventura	4/14/2005	\$74,826,845
February 2, 1998 - April 30, 1998	California Severe Winter Storms and Flooding	FEMA-1203-DR	Los Angeles and 40 additional counties	2/9/1998	not listed
February 13 - April 19, 1995	Severe Winter Storms, Flooding, Landslides, Mud Flows	FEMA-1046-DR	Los Angeles and 57 additional counties	3/12/1995	not listed

**Table 53: Los Angeles County Federal Declared Disasters from 1995-2010**

Source: FEMA

## Federal Requirements for Risk Assessments

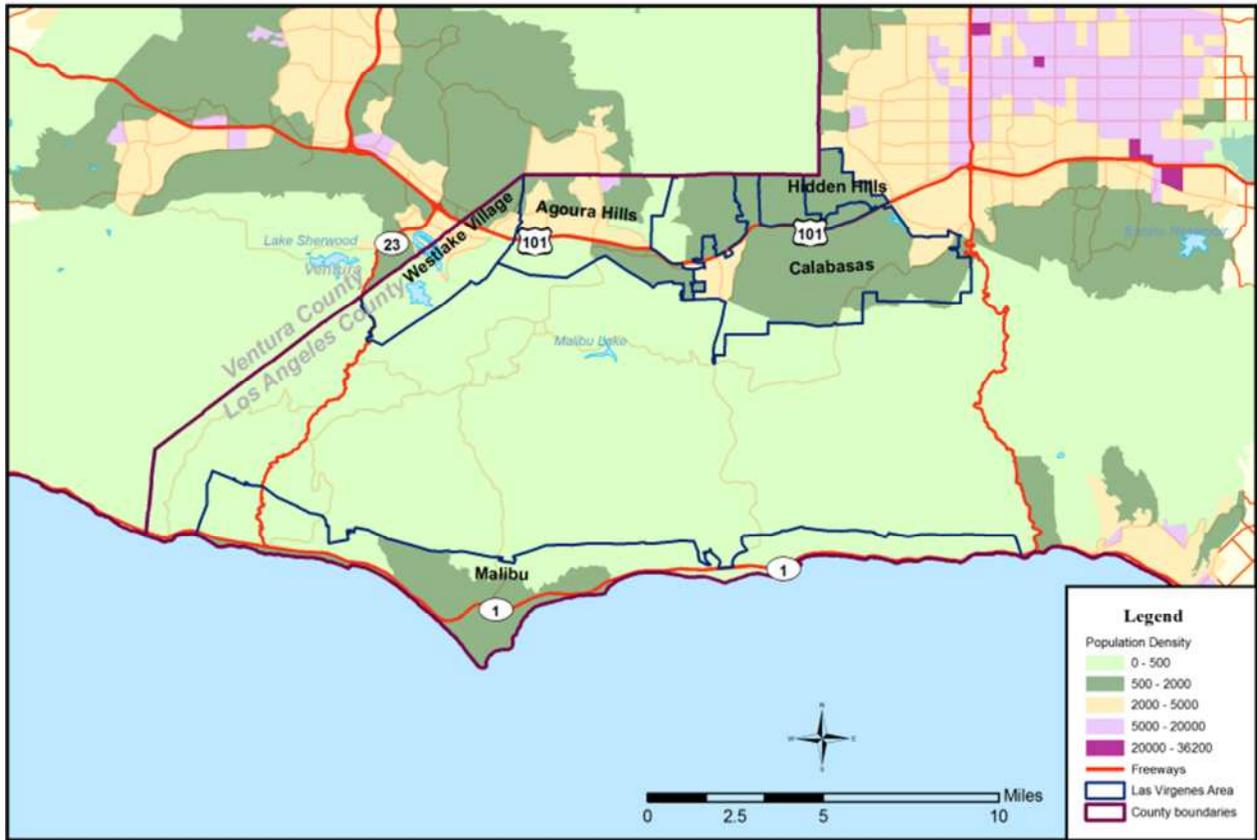
Federal regulations for hazard mitigation plans outlined in 44 CFR Part 201 include a requirement for conducting a Risk Assessment. This Risk Assessment requirement is intended to provide information that will help communities identify and prioritize mitigation activities that will reduce losses from the identified hazards. The hazards profiled in this mitigation plan, include: earthquakes, earth movement (including landslide), flooding, fires (including wildland and structural), windstorms and terrorism.

The Federal criteria for conducting Risk Assessments under 44 CFR Part 201 (Section 322 of the Stafford Act, 42 U.S.C. 5165) and information on how the Las Virgenes-Malibu Council of Governments Hazard Mitigation Plan meets those criteria are outlined below.

Section 322 Plan Requirement	How is this addressed?
Identifying Hazards	Each hazard section includes an inventory of selected available data sources that identify hazard areas. Maps identifying the locations of hazards in the Las Virgenes-Malibu Council of Governments Region are provided in this Risk Assessment and in each individual hazard section, i.e., Earthquake, Wildfire, Wind, Landslide, Flood, and Terrorism.
Profiling Hazard Events	Each hazard section includes documentation of the history, and causes and characteristics of the hazard in the Region.
Assessing Vulnerability: Identifying Assets	The “hazard identification” and “risk assessment” provide a summary of the vulnerability assessment from each hazard and (where data is available) contain the types and numbers of existing buildings, infrastructure and critical facilities exposed to each hazard.
Assessing Vulnerability: Estimating Potential Losses	The calculations of the impact of the hazard (if data was available), the economic exposure, and physical losses, are discussed in this Risk Assessment and under each hazard of this Hazard Mitigation Plan. Vulnerability assessments were completed for the hazards addressed in the plan, and quantitative estimates were made (when data was available) for each hazard.
Assessing Vulnerability: Analyzing Development Trends	The Community Profile Section of this plan provides a description of the development trends in the Region, including the geography and environment, population and demographics, land use and development, housing and community development, employment, business-base, and transportation data.

## Hazard Identification and Risk Analysis

Hazard identification consists of (1) defining the study area in terms of scale and coverage; and (2) collecting and compiling a list of prevalent hazards in the study area to help narrow the focus of the analysis. The figure below depicts the study area and population density (Las Virgenes-Malibu COG jurisdictions and nearby communities).



Map 12: LVMCOG Study Area and Population Density

## Hazard Identification Process

Input on the types of hazards and relative risk was solicited from the Steering Committee and Planning Group (see [Annex D](#)). In addition, members of the community were asked for their feedback and participation in a Disaster Preparedness Risk Survey (see [Annex C](#)) that asked questions regarding the public's general preparedness for disasters as well as which hazards were most likely to impact the local area. The following sections describe the process and results obtained.

### *Steering Committee and Planning Group*

The Steering Committee and Planning Group participated in rating the hazards by taking the Hazard Rating Survey. In addition, in order to get a more comprehensive rating of the hazards, a Planning Group was created to assess the risk and vulnerability of the hazards. This method of tabulation considers the probability, magnitude/severity, the duration and warning time for each hazard and then produces a risk index.

### *Community*

The cities of Agoura Hills, Calabasas, Hidden Hills, Malibu and Westlake Village posted the Disaster Preparedness Risk Survey (see [Annex C](#)) on their city websites. Based on the results of the survey, community participants felt that earthquake and fire were the most likely hazard events to affect the area. These responses were based on magnitude, impact and probability.

### *Risk Survey*

The Planning Group along with the Steering Committee completed a hazard Risk Survey (see [Annex D](#)) to rank identified hazards according to probability, magnitude/severity, warning time, and duration using the following values.

### **Probability**

Description	Value
<b>Highly Likely:</b> Frequent events with a well-documented history of occurrence OR an annual probability that is greater than 0.1.	4
<b>Likely:</b> Occasional occurrences with at least two or more documented historic events OR an annual probability that is between 0.1 and 0.01.	3
<b>Possible:</b> Rare occurrences with at least one documented or anecdotal historic event OR an annual probability between 0.01 and 0.001.	2
<b>Unlikely:</b> Extremely rare with no documented history of occurrence or events OR an annual probability less than 0.001.	1
<b>Not Applicable</b>	0

### Magnitude/Severity

Description	Value
<b>Catastrophic:</b> Severe property damages (greater than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and multiple deaths. Shut down of critical facilities for more than 1 month.	4
<b>Critical:</b> Moderate property damages (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and at least one death. Shut down of critical facilities for more than 1 week and less than 1 month.	3
<b>Limited:</b> Slight property damages (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). Injuries or illnesses do not result in permanent disability and there are no deaths. Moderate quality of life lost. Shut down of critical facilities for more than 1 day and less than 1 week.	2
<b>Negligible:</b> Negligible property damages (less than 5% of critical and non-critical facilities and infrastructure). Injuries or illnesses are treatable with first aid and there are no deaths. Negligible quality of life lost. Shut down of critical facilities for less than 24 hours.	1
Not Applicable	0

### Warning Time

Description	Value
Less than 6 hours or no warning	4
6 to 12 hours	3
12 to 24 hours	2
More than 24 hours	1
Not Applicable	0

### Duration

Description	Value
More than 1 week	4
Greater than 24 hours, up to 1 week	3
Greater than 6 hours, up to 24 hours	2
Less than 6 hours	1
Not Applicable	0

The following table summarizes the results using the following equation and weighting factors:<sup>2</sup>

$$\text{Risk} = 0.45 * \text{Probability} + 0.3 * \text{Magnitude/Severity} + 0.15 * \text{Warning Time} + 0.1 * \text{Duration}$$

Hazard	Average Probability	Weighted Probability	Average Magnitude	Weighted Magnitude	Average Warning Time	Weighted Warning Time	Average Duration	Weighted Duration	Risk
Earthquake (Greater than Magnitude 6)	3.25	<b>1.46</b>	2.25	<b>0.68</b>	4.00	<b>0.60</b>	3.75	<b>0.38</b>	<b>3.11</b>
Wildfire	3.25	<b>1.46</b>	1.75	<b>0.53</b>	3.50	<b>0.53</b>	2.25	<b>0.23</b>	<b>2.74</b>
Severe Windstorm	2.67	<b>1.20</b>	1.33	<b>0.40</b>	3.33	<b>0.50</b>	3.00	<b>0.30</b>	<b>2.40</b>
Terrorism	1.33	<b>0.60</b>	2.00	<b>0.60</b>	4.00	<b>0.60</b>	2.67	<b>0.27</b>	<b>2.07</b>
Landslide	1.25	<b>0.56</b>	1.25	<b>0.38</b>	3.00	<b>0.45</b>	2.75	<b>0.28</b>	<b>1.66</b>
Flood	1.50	<b>0.68</b>	1.25	<b>0.38</b>	2.00	<b>0.30</b>	2.25	<b>0.23</b>	<b>1.58</b>

**Table 54: Hazard Rating Survey**

### Identified Hazards

Based on the risk ratings for each hazard to the region, the Steering Committee and Planning Group chose to incorporate the following events into the Hazard Mitigation Plan:

- Section 6 Earthquake
- Section 7 Wildfire
- Section 8 Windstorm
- Section 9 Landslide
- Section 10 Flood
- Section 11 Terrorism

Each of these disasters can have widespread effects that include loss of life and property, disruption to critical infrastructure (utilities, communications, transportation, etc.), and long term economic loss to the area. Specific event scenarios are provided in the Vulnerability and Loss Estimates section of this Risk Assessment.

Note: The only human generated disaster included in the plan for the Las Virgenes-Malibu Council of Governments is terrorism. Although this threat is viewed as unlikely, the lack of warning time raises the overall risk score.

### Other Natural Disasters

Tsunami and drought are natural disasters that are not ruled out as possibilities but are categorized as unlikely to occur or will have limited impact to the region as a whole. Also, while coastal erosion is an issue in the City of Malibu, overall responsibility is through the State of California and the California Coast Commission. The following sections provide brief summaries of each of these threats.

<sup>2</sup> Formula published by the Arizona Division of Emergency Management (2008)

***Tsunami***

A tsunami has never occurred within the Las Virgenes-Malibu Region. Although the City of Malibu is in close proximity to the Pacific Ocean, there is no record of a tsunami or repercussions of such an event. State data shows that although the City of Malibu would sustain some water inundation if a tsunami hits the Southern California Coast, it would have little to no impact on the LVMCOG region as a whole.

To further mitigate the impact of a tsunami to the general public, the City of Malibu has developed a tsunami information brochure and has designated several Tsunami Safe Areas and evacuation routes.



Tsunami Safe Areas	Evacuation Routes
<ul style="list-style-type: none"> <li>• Malibu Bluffs Park</li> <li>• Malibu Creek State Park</li> <li>• Point Dume (Neighborhood and Elementary School)</li> <li>• Salvation Army Camps (behind Tapia Park)</li> </ul>	<ul style="list-style-type: none"> <li>• Topanga Canyon Blvd.</li> <li>• Malibu Canyon Road</li> <li>• Kanan Road</li> <li>• Encinal Canyon Road</li> <li>• Mulholland Highway</li> </ul>



**Figure 48: Malibu Coastline**  
 Photo by: D. Searls

### *Coastal Erosion*

Erosion is an issue along the Malibu coast. In general, mitigation is the responsibility of the State of California and the California Coastal Commission though the City of Malibu has implemented a Local Coastal Program Local Implementation Plan (adopted by the California Coastal Commission 9/13/2002) and Coastal Zone ordinance to reduce the threat of coastal erosion. Per City of Malibu, Code §10.4:



**Figure 49: Malibu Coast**

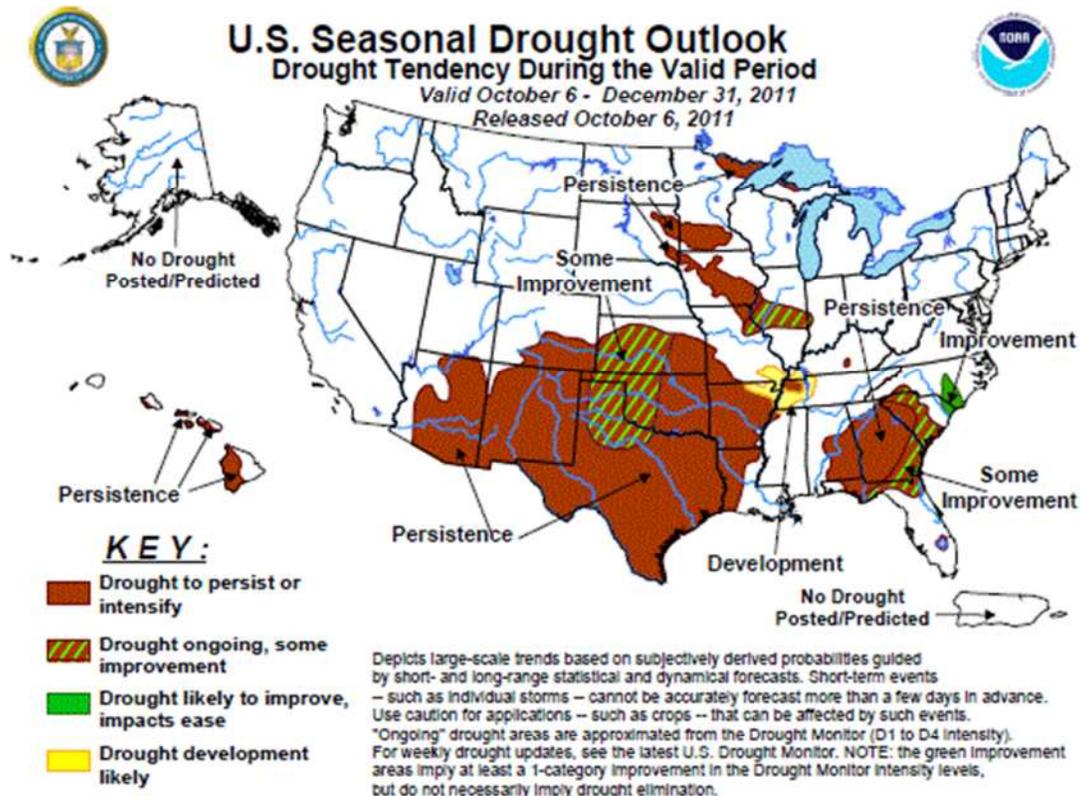
§10.4 A. Siting and design of new shoreline development and shoreline protective devices shall take into account anticipated future changes in sea level. In particular, an acceleration of the historic rate of sea level rise shall be considered and its potential impact on beach erosion, shoreline retreat, and bluff erosion rates shall be evaluated.

§10.4 B. New development on a beach or oceanfront bluff shall be sited outside areas subject to hazards (beach or bluff erosion, inundation, wave run-up) at any time during the full projected 100 year economic life of the development. If complete avoidance of hazard areas is not feasible, all new beach or oceanfront bluff development shall be elevated above the base Flood Elevation (as defined by FEMA) and sited as far landward as possible to the maximum extent practicable. All development shall be setback a minimum of 10 feet landward of the most landward surveyed mean high tide line. Whichever setback method is most restrictive shall apply. Development plans shall consider hazards currently affecting the property as well as hazards that can be anticipated over the life of the structure.

See City of Malibu, Code §10.4 for additional erosion control requirements.

## Drought

Historical records of the last century do not show any significant loss of life or property to the Las Virgenes-Malibu Region because of a drought occurrence. The last devastating drought to hit Southern California was from 1862-1864, when the state lost nearly a quarter of its earnings and 40% of its livestock, mostly because of the dry Southern Region. (Leonard Pitt, *Decline of the Californios: A Social History of the Spanish-Speaking Californias, 1846-1890*, pg.247)



**Figure 50: U.S. Seasonal Drought Outlook**

Although Southern California is under constant threat of drought, there is no indication that a serious threat to life or property exists. Furthermore, recent conditions and predictions do not show drought to be a major near-term concern in the Las Virgenes-Malibu Region (see U.S. Seasonal Drought Outlook figure above).

Nevertheless it is important to note that drought can have a secondary impact to the hydroelectric power generation capabilities of the entire western U.S. As a result, drought remains a concern for the entire region.

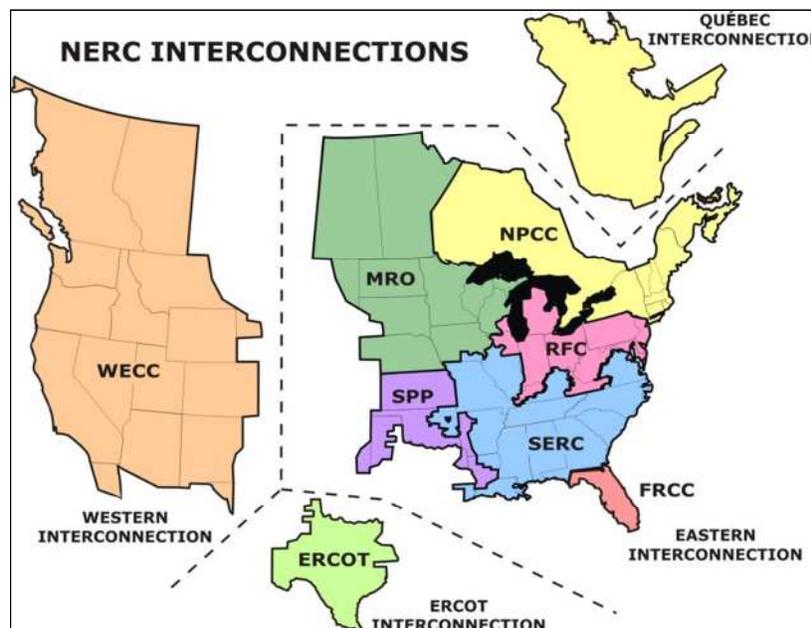
## Human Generated and Technology Disasters

### *Power Outage*

Power outages do occur occasionally so the risk of occurrence is somewhat likely. Electrical power is supplied to the Las Virgenes-Malibu Region by Southern California Edison (SCE). Power outages can occur whenever there is a severe disruption to power generation facilities or distribution network (for instance during a severe storm, an earthquake, or wildfire).

In addition, human error is a potential risk. On September 8, 2011 an Arizona Public Service (APS) employee is believed to have caused a major power outage that included Arizona and portions of Southern California including San Diego, Orange, and Imperial Counties. The outage impacted more than 5 million people. While the Las Virgenes-Malibu Region was not impacted, this event demonstrates the potential for widespread power disruptions.

Finally, there is an ongoing risk of cyber-attack to the nation's critical infrastructure. On August 14, 2003, the MSBLAST worm (Blaster) and SoBig worms were suspected of causing a massive blackout in the Northeastern Interconnect impacting 50 million customers from the mid-west to the east coast.

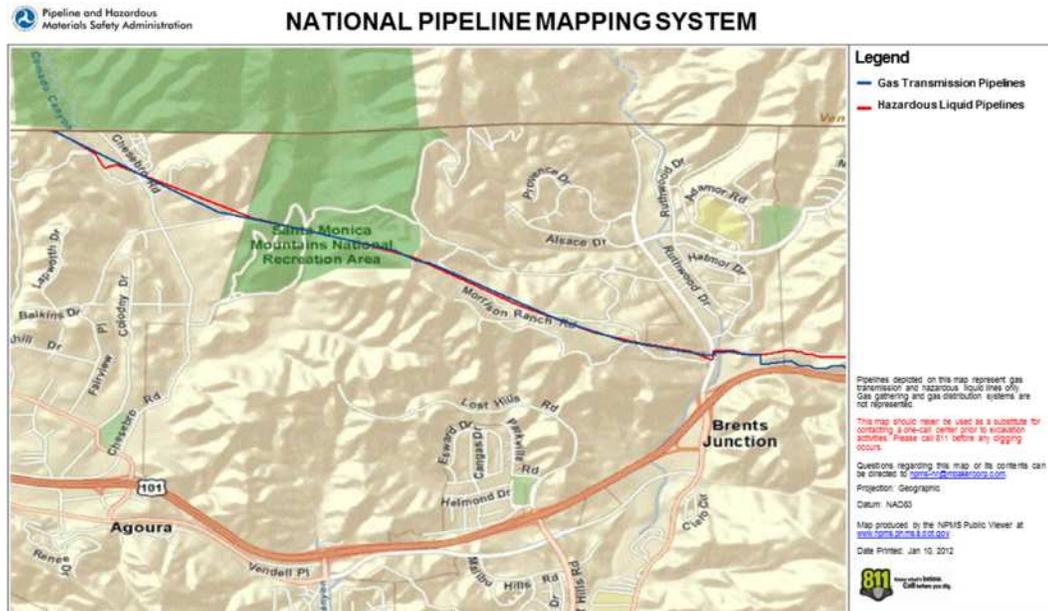


**Figure 51: NERC Interconnections**

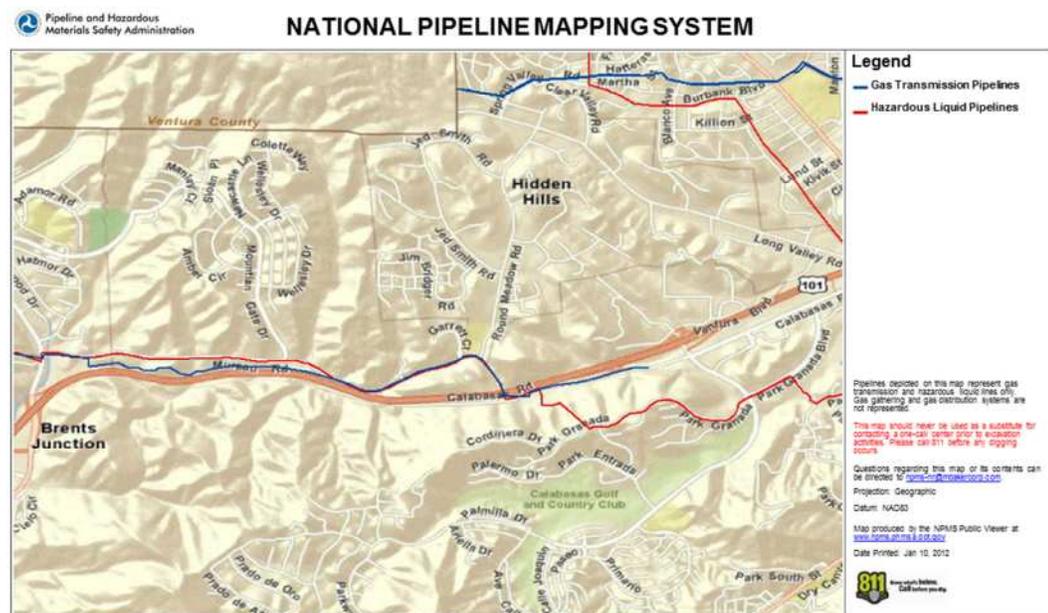
To mitigate the threat of power outage, SCE has an emergency preparedness program in place to address pre- and post-disaster planning needs. Additionally, they have included in their plans the need to communicate with the Region during an outage. Finally, SCE continually assesses the vulnerability of their system to hazards and takes steps to mitigate the risk.

**Pipeline Rupture / Explosion**

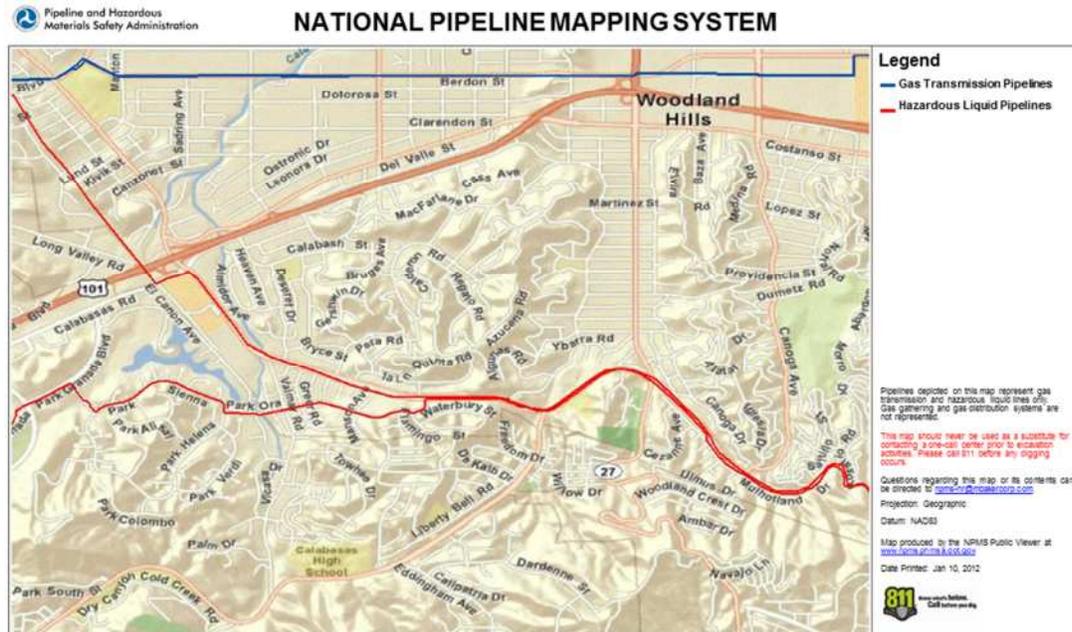
Natural gas transmission and hazardous liquid pipelines are present within the Las Virgenes-Malibu Region and there is a conceivable risk from rupture and/or explosion. Portions of Agoura Hills, Calabasas and Hidden Hills including areas of US 101 (Ventura Freeway), Ventura Boulevard, and surrounding neighborhoods have underground pipelines that pose a potential risk to discrete locations in the community.



**Figure 52: Pipelines - Agoura Hills**



**Figure 53: Pipelines - West Calabasas and Hidden Hills**



**Figure 54: Pipelines - East Calabasas**

The San Bruno, California natural gas transmission pipeline rupture and fire on September 9, 2010 demonstrated the impact of this type of disaster to local populations. The pipeline operated by Pacific Gas and Electric Company ruptured releasing 47.6 million standard cubic feet of natural gas and produced a crater 72 feet long and 26 feet wide.

The explosion and resulting fire killed 8 people, left numerous injuries, destroyed 38 homes and damaged 70.<sup>3</sup> In addition, people in the surrounding neighborhood had to be evacuated until the danger subsided. While catastrophic in terms of lives and property loss, a pipeline rupture and/or explosion would be a localized event and not impact the Las Virgenes-Malibu Region as a whole. In terms of regional impact, the most widespread disruption would occur if there were significant damage to US 101. This would cause transportation issues for the entire area.



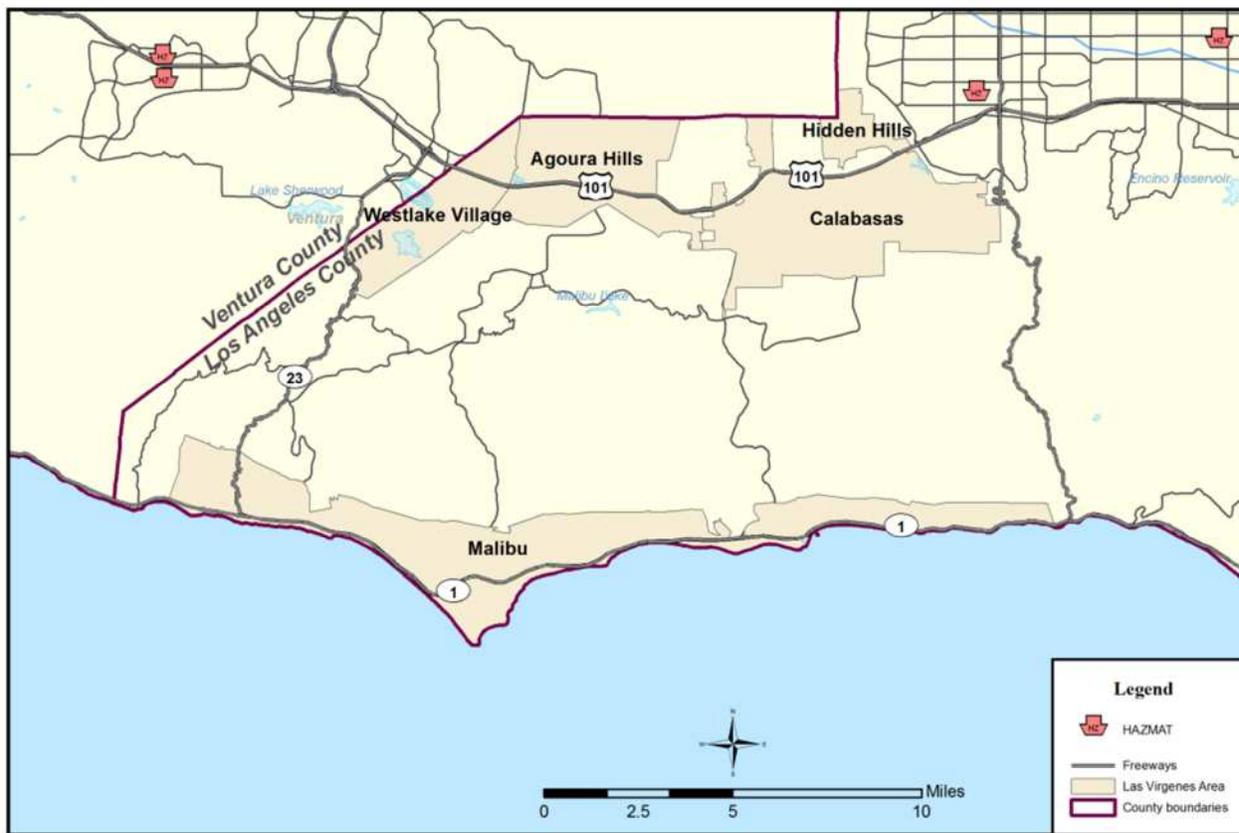
**Figure 55: San Bruno Pipeline Explosion**

Source: CalEMA

<sup>3</sup> NTSB Pipeline Accident Report, Pacific Gas and Electric Company Natural Gas Transmission Pipeline Rupture and Fire, San Bruno, California, September 9, 2010 (NTSB Number: PAR-11-01, NTIS Number: PB2011-916501, Adopted: August 30, 2011).

### Hazardous Material Accidents

The Las Virgenes-Malibu Region could be affected by hazardous materials incidents. The spills/releases of material can result from both stationary and mobile sources. The level of exposure from stationary sources is considered to be very low, due to the types of business and industry conducted within the Region (traffic from major highways and railways still pose a risk). Although there are sites in the general vicinity known to harbor hazardous materials, there is no record of a major hazardous material spill or incident in the cities within the Region. Because of this low historical frequency, the Steering Committee did not address this disaster. The following map identifies minimal hazardous waste handlers and generators in the vicinity.



Map 13: Hazardous Materials Sites

## Aircraft Crash

The airports nearest to the Las Virgenes-Malibu Region which handle the greatest amount of air traffic that could cause a risk to the area are Los Angeles International Airport and Burbank Bob Hope Airport. There are also multiple general aviation airports, military airports, and heliports that support air traffic in the Los Angeles region.

The airports within 25 miles of the Las Virgenes-Malibu Region are:

- Los Angeles International Airport
- Santa Monica Municipal Airport
- Van Nuys Airport
- Whiteman Airport (including Los Angeles County Fire Department operations from Barton Heliport)
- Burbank (Bob Hope) Airport
- Camarillo Airport
- Hawthorne Municipal Airport

There is a small but existing risk of an aircraft crash in the Las Virgenes-Malibu Region. Nevertheless, if an aircraft were to crash, the impact would be limited to a localized area and would not disrupt the entire region.



Map 14: Airports within 25 miles

### *Civil Unrest/Riot*

Los Angeles County experienced the Los Angeles Civil Unrest in 1992 and the Watts Riots in 1965. During these periods, the Las Virgenes-Malibu Region suffered no loss of life or property.

Similarly, during 2011 “Occupy LA” and other civil protests were staged in Los Angeles County and across the U.S. While somewhat disruptive to the immediate vicinities and targeted sites, the Las Virgenes-Malibu Region was unaffected. As a result the actual risk of a riot or major civil disturbance is considered minimal.

## Vulnerability and Loss Estimates

Assessing vulnerability is a three step process. The first step is to identify existing structures and critical facilities that are located within the hazard area. Government critical facilities are of particular concern because these buildings provide essential products and services to the general public that are necessary to preserve the welfare and quality of life in the region and fulfill important public safety, emergency response, and/or disaster recovery functions (see Critical Facilities and Infrastructure Matrix for a listing of key sites).

Once existing structures and critical facilities are identified, the next step is to include an estimate of losses for the identified asset. Estimating potential loss involves assessing the damage, injuries, and financial costs likely to be sustained in a geographic area over a given period of time. This level of analysis involves using mathematical models.

The two measurable components of risk analysis are magnitude of the harm that may result and the likelihood of the harm occurring. Describing vulnerability in terms of dollar losses provides the community and the state with a common framework in which to measure the effects of hazards on assets. The last step in assessing the Region’s vulnerability to hazards is to analyze development trends in the Region.

### Critical Facilities and Infrastructure Overview

Critical facilities and infrastructure are resources that are vital to the continued delivery of key government services or that may significantly impact the public’s ability to recover from an emergency. For example, each city within the Las Virgenes-Malibu Council of Governments maintains and operates separate City Halls and departments. In order to provide Continuity of Operations (COOP) and Continuity of Government (COG) each city has also developed their own Emergency Operations Centers (EOCs). The following lists are provided to illustrate the critical and essential facilities within the LVMCOG area:

- Los Angeles County Sherriff’s Stations
- Los Angeles County Fire Stations
- Las Virgenes Water District
- Critical Facilities and Infrastructure Matrix

#### *Los Angeles County Sheriff’s Station*

The LVMCOG region’s Malibu/Lost Hills Sheriff’s station is located in Calabasas. This station serves the western portion of Los Angeles County, which is a blend of residential, rural, mountain, beach and recreational areas. The cities served by this station include Agoura Hills, Calabasas, Hidden Hills, Malibu, and Westlake Village as well as the unincorporated communities of Chatsworth Lake Manor, Malibu Lake, Topanga, and West Hills.

<b>LOS ANGELES COUNTY SHERIFF</b>	
<b>Malibu/Lost Hills Station</b>	27050 Agoura Road, Calabasas, CA 91301

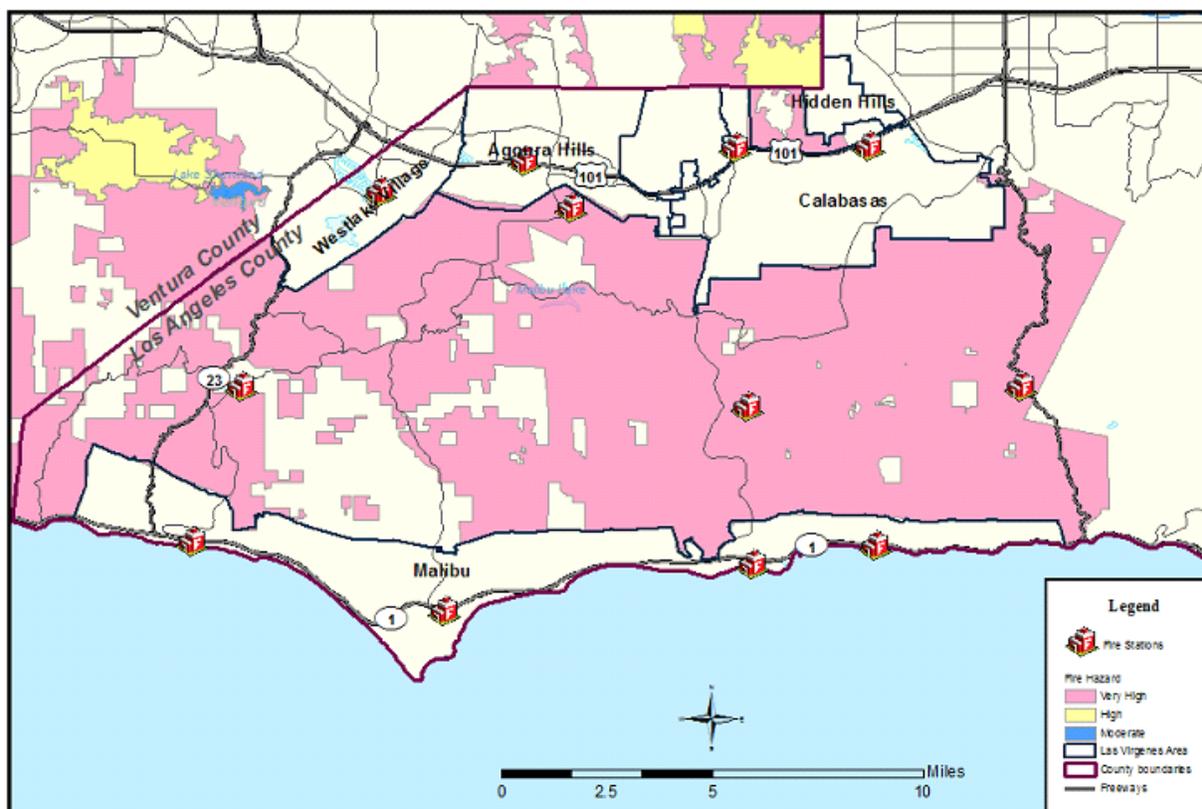
**Table 55: Las Virgenes-Malibu COG Area Sheriff’s Station**

**Los Angeles County Fire Stations**

The following fire stations are located within the Las Virgenes-Malibu COG Region.

<b>LOS ANGELES COUNTY FIRE DEPARTMENT BATTALION 5</b>	
<b>Fire Station #65</b>	4206 N Cornell Rd, Agoura, 91301
<b>Fire Station #67</b>	25801 Piuma Rd, Calabasas, 91302
<b>Fire Station #68</b>	24130 Calabasas Rd, Calabasas, 91302
<b>Fire Station #69</b>	401 S Topanga Cyn Blvd, Topanga, 90290
<b>Fire Station #70 - Headquarters</b>	3970 Carbon Cyn Rd, Malibu, 90265
<b>Fire Station #71</b>	28722 W Pacific Coast Hwy, Malibu, 90265
<b>Fire Station #72</b>	1832 Decker Canyon Rd, Malibu, 90265
<b>Fire Station #88</b>	23720 W Malibu Rd, Malibu, 90265
<b>Fire Station #89</b>	29575 Canwood St., Agoura Hills, 91301
<b>Fire Station #99</b>	32550 Pacific Coast Hwy, Malibu, 90265
<b>Fire Station #125</b>	5215 N Las Virgenes Rd, Calabasas, 91302
<b>Fire Station #144</b>	31981 Foxfield Dr, Westlake Village, 91361

**Table 56: Las Virgenes-Malibu COG Area Fire Stations**



**Map 15: Las Virgenes-Malibu COG Fire Hazard Areas and Fire Station Locations**

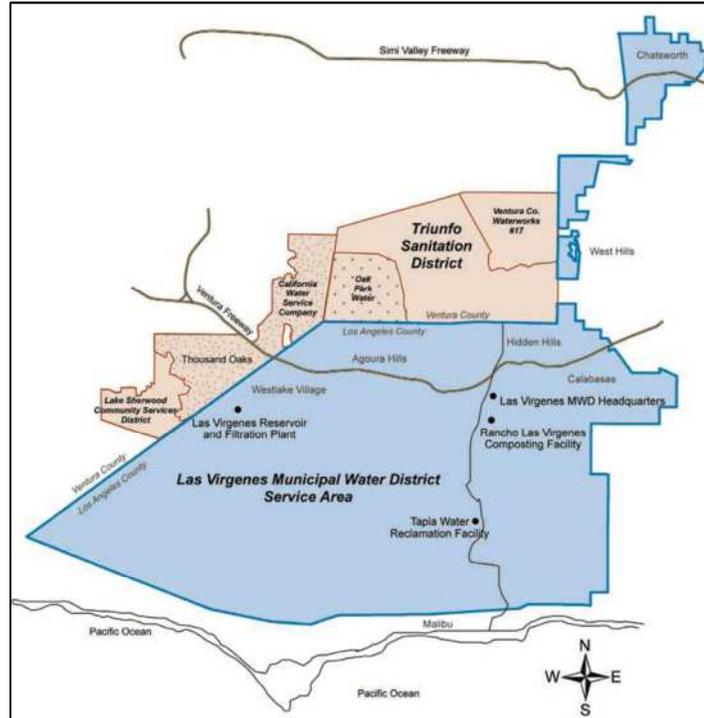
### *Las Virgenes Municipal Water District*

The Las Virgenes Municipal Water District (LVMWD) serves the cities of Agoura Hills, Calabasas, Hidden Hills and Westlake Village (the City of Malibu is served by Los Angeles County Water District 29) They have 24 water tanks and 24 pumping stations, 10,000 acre-foot Las Virgenes Reservoir, and the Westlake Village Filtration Plat.

The Las Virgenes Reservoir dam is located at 2860 Three Springs Drive, Westlake Village. The water filtration plant is located at 32601 Torchwood Place, Westlake Village. Water is also purchased from the Metropolitan Water District of Southern California (MWD).

The LVMWD takes precautions to secure their facilities including fencing sites and securing facilities with alarms. Major facilities have security access gates locked 24/7 and a security company monitors and responds to alarms.

The district has operating and response procedures to ensure that any potential interruption of services will be as short as possible. Further, the district has completed a Vulnerability Assessment as required by federal law to assess and mitigate any potential security issues.



**Map 16: Las Virgenes Municipal Water District Service Area**

The Critical Facilities and Infrastructure Matrix on the following page provides a summary of key governmental, utility, commercial, cultural, and historical sites in the region. An understanding of critical facilities and infrastructure provides a basis for modeling current and future events and assists in focusing mitigation efforts.

**Critical Facilities and Infrastructure Matrix**

The following locations have been identified by the individual cities within the Las Virgenes- Malibu COG as essential due to the impact of a disaster on the public (e.g., large public meeting places), economy, or key infrastructure. The Critical Infrastructure Sectors listed are based on Homeland Security Presidential Directive 7 (HSPD-7).

Critical Infrastructure Sectors	Description	Agoura Hills	Calabasas	Hidden Hills	Malibu	Westlake Village
Agriculture and Food	Farming, livestock, poultry, food distribution, etc.	N/A	N/A	N/A	N/A	•Dole Foods
Banking and Finance	Banks, thrifts, credit unions, insurers, securities brokers/dealers, investment companies, financial services, etc. Includes Bank / Financial headquarters, loan processing centers, credit card processing centers, data centers	N/A	• Bank of America	N/A	N/A	• Bank of America
Chemical Industry	Chemical manufacturers, pharmaceutical, consumer products, agricultural chemicals, etc.	N/A	N/A	N/A	N/A	N/A
Commercial Facilities	Public Assembly (e.g., arenas, stadiums, aquariums, zoos, museums, convention centers), Sports Leagues (e.g., professional sports leagues and federations) Gaming (e.g., casinos), Lodging (e.g., hotels, motels, conference centers), Outdoor Events (e.g., theme and amusement parks, fairs, campgrounds, parades), Entertainment and Media (e.g., motion picture studios, broadcast media), Real Estate (e.g., office/apartment buildings, condominiums, mixed-use facilities, self-storage) and, Retail (e.g., retail centers and districts, shopping malls)	<ul style="list-style-type: none"> <li>• Civic Center</li> <li>• Recreation Center</li> </ul>	<ul style="list-style-type: none"> <li>• Auto Row</li> <li>• Civic Center</li> <li>• The Commons (retail, food, entertainment)</li> </ul>	<ul style="list-style-type: none"> <li>• Community Center (not city owned)</li> </ul>	<ul style="list-style-type: none"> <li>• Civic Center</li> <li>• Zuma Beach Evacuation Area</li> </ul>	<ul style="list-style-type: none"> <li>• Civic Center</li> <li>• Costco</li> <li>• Four Seasons Hotel and Longevity Center</li> <li>• Residence Inn</li> <li>• Westlake Market Place</li> <li>• Westlake Village Inn</li> </ul>
Communications	Terrestrial, satellite, and wireless transmission systems (major hubs, transmission/reception centers, etc.)	<ul style="list-style-type: none"> <li>• Charter Communications</li> <li>• LVUSD &amp; City Antennas</li> <li>• City CERT Antenna (Kimberly Peak)</li> </ul>	N/A	N/A	N/A	<ul style="list-style-type: none"> <li>•Time Warner Building Agoura Road, Fiber Optics trunk Line parallel to 101 freeway and La Tienda</li> </ul>

Critical Infrastructure Sectors	Description	Agoura Hills	Calabasas	Hidden Hills	Malibu	Westlake Village
Critical Manufacturing	Primary metal manufacturing (iron and steel mills, ferro-alloys, aluminum, nonferrous metal production and processing), machinery manufacturing (engine, turbine, power transmission), electrical equipment (electrical equipment, appliance, and component manufacturing), transportation equipment manufacturing (motor vehicle, aerospace, railroad, etc.)	N/A	N/A	N/A	N/A	N/A
Dams	Dams, navigation locks, levees, hurricane barriers, mine tailings impoundments, or other similar water retention and/or control facilities	N/A	N/A	N/A	N/A	<ul style="list-style-type: none"> <li>•Banning Dam</li> <li>•Three Springs Dam</li> <li>•Westlake Dam</li> </ul>
Defense Industrial Base	Department of Defense (DoD), government, and the private sector worldwide industrial complex with the capabilities of performing research and development, design, production, delivery, and maintenance of military weapons systems, subsystems, components, or parts to meet military requirements	N/A	N/A	N/A	•HRL Laboratories	N/A
Emergency Services	First-responder disciplines that include: emergency management, emergency medical services, fire, hazardous material, law enforcement, bomb squads, tactical operations/special weapons assault teams, and search and rescue	<ul style="list-style-type: none"> <li>•LA County Fire Station #89</li> </ul>	<ul style="list-style-type: none"> <li>•LA County Fire Stations: #68 and #125</li> <li>•LA County Sheriff Lost Hills Station</li> </ul>	<ul style="list-style-type: none"> <li>•Hidden Hills EOC</li> </ul>	<ul style="list-style-type: none"> <li>•LA County Fire Station #70: Battalion HQ</li> <li>•LA County Fire Stations: #71, #72, #88, #99</li> </ul>	<ul style="list-style-type: none"> <li>•LA County Fire Station #144</li> </ul>
Energy	Electricity, petroleum, natural gas	<ul style="list-style-type: none"> <li>•Natural Gas Pipelines</li> <li>•Oil Pipelines</li> <li>•Edison Substation</li> </ul>	<ul style="list-style-type: none"> <li>•Natural Gas Pipelines</li> <li>•Oil Pipelines</li> </ul>	<ul style="list-style-type: none"> <li>•Oil Pipelines</li> </ul>	N/A	N/A
Government Facilities	General-use office buildings and special-use military installations, embassies, courthouses, national laboratories, and structures that may house critical equipment and systems, networks, and functions as well as cyber elements that contribute to the protection of sector assets (e.g., access control systems and closed-circuit television systems) and the protection of individuals who possess tactical, operational, or strategic knowledge or perform essential functions	<ul style="list-style-type: none"> <li>•City Hall</li> <li>•Library</li> </ul>	<ul style="list-style-type: none"> <li>•City Hall</li> <li>•Library</li> </ul>	<ul style="list-style-type: none"> <li>•City Hall</li> </ul>	<ul style="list-style-type: none"> <li>•City Hall</li> </ul>	<ul style="list-style-type: none"> <li>•City Hall</li> </ul>

Critical Infrastructure Sectors	Description	Agoura Hills	Calabasas	Hidden Hills	Malibu	Westlake Village
Information Technology	Public and private sector information systems including the Internet	N/A	N/A	N/A	•City Hall	N/A
National Monuments and Icons	Listed in the National Register of Historic Places, List of National Historic Landmarks, icons, or other recognized physical structures, objects, or geographic sites	•Reyes Adobe Historical Site	N/A	N/A	N/A	N/A
Nuclear Reactors, Materials, and Waste	Nuclear power plants; non-power nuclear reactors used for research, testing, and training; nuclear materials used in medical, industrial, and academic settings; nuclear fuel fabrication facilities; decommissioning reactors; and the transportation, storage, and disposal of nuclear material and waste	N/A	N/A	N/A	N/A	N/A
Postal & Shipping	High volume processing facilities, delivery units, collection locations, retail operations, transport vehicles, postal/delivery information and communications networks	N/A	N/A	N/A	N/A	N/A
Healthcare and Public Health	Public and private hospitals and healthcare facilities	N/A	N/A	N/A	N/A	N/A
Transportation	Aviation, highways, maritime transportation, mass transit, pipeline systems, and rail	•101 Freeway •Pipelines (see Energy)	•101 Freeway •Natural Gas and Oil Pipelines (see Energy)	•101 Freeway	•Highway 1 PCH	•101 Freeway
Water	Drinking water and waste water	•Water Storage Tanks	•Las Virgenes Malibu WD HQ	N/A	•Water Storage Tanks	•Three Springs Reservoir
Other	Other locations not otherwise defined	N/A	•Round Meadow Elementary School (not city owned)	N/A	N/A	N/A

Table 57: Critical Facilities and Infrastructure Matrix