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8. Santa Monica Mountains CWPP: Action Plan

This Community Wildfire Protection Plan (CWPP) is based on the collaboration of the participating stakeholders (Plan Partners) and the many Santa Monica Mountains residents who were part of this process[1] through attending a public meeting and/or commenting on drafts of the plan. Based on this collaboration, and the analysis reported in Chapters 3 through 7, the following action plan was developed for the Santa Monica Mountains CWPP Planning Area.

Each of the following topics is introduced, and a set of action steps identified, as well as the lead organizations and/or Plan Partners for implementation. The action items are then ranked in terms of short (1–2 years), medium (2–5 years), long (5–10 years), or ongoing implementation priority; ease of implementation is also indicated.

In an ideal world, everything recommended here would be implemented expeditiously. Although it is the intention of CWPP authors and signers that all action items in this document be implemented as appropriate, it will happen subject to the availability of funds and other resources.

➢ *Action items are identified with this arrow throughout this chapter. They are followed by the implementer(s) of the action item, and the implementation priority:* ***"S"*** *(short),* ***"M"*** *(medium),* ***"L"*** *(long), and/or* ***"O"*** *(ongoing). In addition, a "★" indicates those items that will be relatively easy to implement or have already been completed.*

8.1. Creating Fire Safe Communities: Empowering Residents to Take Responsibility

In the Santa Monica Mountains, the principal hazardous fuels threatening residents are urban fuels[2]—the vegetation and other flammable items found closest to homes. Contrary to popular belief, it is not the chaparral or woodlands of the Santa Monica Mountains National Recreation Area that threaten property, it's the dense vegetation directly adjacent to homes and outbuildings, and the homes themselves.[3] As shown in Chapters 3, 4, and 5 of this CWPP, the most effective wildfire survival strategy in the Santa Monica Mountains is to ensure that homes and the surrounding "home ignition zone" are adequately prepared to survive wildfire.

> "If homes are sufficiently resistant to ignition and do not ignite during the extreme wildfire exposure, then the homes survive without firefighter protection: we have an extreme wildfire

[1] See Chapter 2 for more information on the collaborative process.

[2] See Chapter 4, section 4.1.3, for a description of urban fuels.

[3] J.E. Keeley, H. Safford, C.J. Fotheringham, J. Franklin, and M. Moritz (2009), "The 2007 Southern California Fires: Lessons in Complexity," *Journal of Forestry* 107: pp. 287–296.

J.D. Cohen (2000). "Preventing Disaster: Home Ignitability in the Wildland-Urban Interface," *Journal of Forestry* 98: pp. 15–21.

Alexander Maranghides and William Mell (June 2009), "A Case Study of a Community Affected by the Witch and Guejuito Fires," National Institute of Standards and Technology Technical Note 1635, US Department of Commerce, 59 pages.

but not a WUI [Wildland-Urban Interface] fire disaster. Thus, WUI fire disasters principally depend on home ignition potential."[4]

"Preventing WUI fire disasters requires that the problem be framed in terms of home ignition potential. Because this principally involves the home ignition zone, and the home ignition zone primarily falls within private ownership, the responsibility for preventing home ignitions largely falls within the authority of the property owner. Preventing wildfire disasters thus means fire agencies helping property owners mitigate the vulnerability of their structures."[5]

- *Coordinate regional efforts to focus on a defensible-space "from the house out" strategy, empowering residents to create fire-safe communities in the Santa Monica Mountains.* — Plan Partners, Fire Safe Councils, homeowner's associations, and residents. **(S)**

8.1.1. Fire Safe Councils

The effective functioning of Fire Safe Councils (FSCs) and related community-based organizations in the Santa Monica Mountains is critical to creating and implementing fire-safe communities here. Through the FSC's collaborative processes, various partners have come to the table to implement fuel reduction and fire-safety projects. **It will be members of these FSCs and associated community organizations such as homeowner's associations who will ultimately determine the effectiveness and success of this CWPP**. **Hence, ongoing support for and participation in local Fire Safe Councils is fundamental both for their development and for the success of local fire-safety efforts.**

Horizon Hills Fire Safe Council project.
Source: Horizon Hills FSC, NPS/SMMNRA

As part of this CWPP, a brief Community Fire Safety Action Plan has been developed for each of the local communities of the Santa Monica Mountains, as divided into the CWPP planning units *(see Part II)*. These documents contain a background description of each area, including the local fire environment, and a set of proposed actions. They can function as the basis for an operating plan for FSCs and related groups. **These Fire Safety Action Plans identify a set of actions that community members can take themselves to make their homes and neighborhoods fire safe.**

Based on the very positive feedback from residents at the CWPP community meetings, there is a committed interest to organize locally to create fire-safe neighborhoods and communities in the Santa Monica Mountains. What is needed is a solid organizational structure with a strategic plan for these groups to be able to effectively function over the long term.

Chapter 1 summarizes the existing Fire Safe Councils in the Santa Monica Mountains that already provide community fire safety leadership. At the 2009–2010 community meetings, the

[4] Jack Cohen (Fall 2008), "The Wildland-Urban Interface Problem–A Consequence of the Fire Exclusion Paradigm," *Forest History Today,* p. 23, www.foresthistory.org/Publications/FHT/FHTFall2008/Cohen.pdf.

[5] Cohen (2008), p. 25.

following communities expressed interest creating a local FSC: Upper Rambla/Las Flores, Calabasas, Lower Decker/Encinal Canyons, and Malibu Park, as well as creating and/or expanding FSC efforts in the greater Malibou Lake/Lakeside, Lobo, Triunfo, Cornell, and Seminole Springs area.

- *Form Fire Safe Councils to coordinate community wildfire preparedness efforts.* — Neighborhood groups and homeowner's associations. **(S, O)**
- *Work with local Fire Safe Councils to develop ongoing financial and in-kind support—including organizational development, technical support, fundraising, and training—to ensure their long-term sustainability and autonomy.* — Public and private-sector organizations, agencies, and individuals. **(S, O)**
- *Lead community efforts to implement projects proposed in the Community Fire Safety Action Plans in Part II of this CWPP, using the Project Implementation Matrix[6] to track efforts from Plan Partners. Seek technical support from Plan Partners.* — Fire Safe Councils, homeowner's associations, and other community-based organizations. **(S, O)**
- *Work with community members and with local, state, and federal agency partners to evaluate existing and develop new local fire-safety strategic plans, using these Community Fire Safety Action Plans as a basis. More detailed plans should include identification of an appropriate long-term management structure, funding sources, a localized risk assessment,[7] and priority wildfire risk and hazard-reduction projects.* — Fire Safe Councils. **(M)**
- *Collaborate to foster new and support existing Fire Safe Councils in the Santa Monica Mountains.* — California Fire Safe Council, Los Angeles County Fire Department Forestry Division, National Park Service, Ventura County Fire Department, University of California Cooperative Extension, and other interested partners. **(O)**

8.2. Hardening Homes to Survive Wildfire—Reducing Structural Ignitability

As detailed throughout this CWPP, effective fire-safe communities begin by making homes and other structures ready for wildfire. Reducing the chance that structures (our homes, businesses, etc.) will burn is a fundamental component of any CWPP.

> "Research shows that a home's ignition potential during extreme wildfires is determined by the characteristics of its exterior materials and design and their response to burning objects within one hundred feet and firebrands (burning embers)."[8]

The following sections identify specific actions that can reduce structural ignitability in the Santa Monica Mountains region.

8.2.1. Implementing WUI Building Standards

The California State Fire Marshal's Office has developed state-of-the-art building standards[9] for use within the Wildland-Urban Interface zone (WUI). The current standards become effective on January 1, 2011. Homeowners in the Santa Monica Mountains need to become familiar with these standards so they can upgrade their homes to improve wildfire survivability. Section 4.1.1 in this CWPP summarizes standards.

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[6] See Chapter 9.

[7] See Chapter 7, section 7.3.

[8] Cohen (Fall 2008), "The Wildland-Urban Interface Problem," p. 23.

[9] See "California's Wildland-Urban Interface Code Information:" www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php

Single-family home values in the Santa Monica Mountains range from approximately $600,000 to $65,000,000. Expenses to "harden" homes here (to make them fire-resistant) are only a fraction of these home values, and may be much more effective in the long term than even the best insurance policy. This assumes that it is better for a home to survive a wildfire instead of having to rebuild. Local FSCs such as the Malibu West Fire Safe and Sustainability Council are exploring the options of neighborhood-wide, wholesale purchase and installation of WUI building materials such as fire-safe vents. This is an effective and efficient way to reduce costs and wildfire risk; it can reduce the chances of home-to-home ignition. Other creative financing options should be explored. For instance, state legislation is moving forward to provide financial incentives for improving home energy efficiency; these standards include upgrading to double-pane windows, which would also increase a house's structural integrity against wildfire.

Roofing: Research shows that homes with a non-combustible roof and defensible space of at least 30 to 60 feet around the structure have an 85–95% chance of survival in a wildfire.[10] Efforts should continue to eliminate all wood-shake roofs and to correctly cap tile roofs (i.e. to completely seal the open ends).

Gutters: There are several new, simple technologies available to cover gutters to keep them from accumulating hazardous fuels. Research has shown that a home with a gutter full of leaves has enough fuel to ignite a roof, especially if there is a path for the fire to reach any exposed flammable surfaces.

Windows: Double-pane windows with tempered glass for the outside pane are far more effective in their ability to survive a wildfire, as well as being a smart long-term solution for energy conservation within the home.

Siding: Walls need to resist heat and flames, as well as embers. Non-combustible material like stucco, concrete, and tile resist flames but don't always resist heat and embers. Therefore, all siding needs to have a sheet-rock barrier underneath the material, and any gaps along the bottom or top edges must be sealed or caulked. Wood siding on homes should be replaced or treated with non-toxic fire retardant.

Vents: Recent fires have shown that screened vents alone can fail to keep embers out of attics and other spaces. New technology that combines several features increases the effectiveness of a vent's ability to prevent embers from entering attics and other flammable spaces.

These fuels are too close to this wood-sided house. The open areas under the home should be sealed off.

Decks: With adequate defensible space in the home ignition zone, most solid wood decking is fire-resistant enough to withstand short-term heat loads. However, this requires minimal fuels both horizontally and vertically around and below decks.

Outbuildings, Wood Piles, and Other Fuel Sources: Outbuildings (e.g. storage, wood, and tool sheds) with less than 30 feet of separation from main structures place homes at a high risk of loss. If these structures catch fire, they can catch the home on fire as well. Many fuel sources are

[10] Ethan Foote (August 2004), "Wildland-Urban Interface Ignition-Resistant Building Construction Recommendations," Community Wildfire Protection Plan Workshops, California Fire Alliance and the California Fire Safe Council.

found around homes, especially in the more rural areas of the Santa Monica Mountains. These include wood piles, fencing, decks, propane tanks, and other fuel-storage areas. Storing flammable items closer than 30 feet from homes and structures greatly increases risk of fire damage, and is illegal in many cases.

- *Educate Santa Monica Mountains residents on current WUI building standards and the products approved by the State Fire Marshal's office.* — SMM Fire Safe Alliance, Fire Safe Councils, homeowner's associations, and community development/planning and building departments. **(S, O)**
- *Create and implement educational programs on hardening homes in the Santa Monica Mountains, including the possibility of a WUI building products fair.* — Fire Safe Councils in coordination with Plan Partners. **(M)**
- *Utilize planned "Fire-Safe Demonstration Building" to showcase fire-safe building materials and retrofit products.* — Los Angeles County and Resource Conservation District of the Santa Monica Mountains. **(S)**
- *Work with State Fire Marshal-approved WUI building product vendors to create discounted wholesale purchases and installation of products to harden homes at the neighborhood scale.* — Fire Safe Councils and homeowner's associations. **(S, O)**
- *Explore parallel incentive programs that can also finance upgrading homes to current WUI building standards.* — SMM Fire Safe Alliance, counties, and cities. **(M)**

8.3. Reducing Urban Fuels

The most effective fuel-reduction action in Santa Monica Mountains communities takes place immediately within and adjacent to homes and other structures—the home ignition zone.[11] Hence, in the event of a wildfire, there will be limited fuels adjacent to a structure to carry the fire to it.

8.3.1. Reducing Fuels Around Homes and Other Structures

Residents have the primary responsibility for adequately reducing hazardous fuels around their homes and properties. As shown in Chapter 4, it makes sense and it's the law.

At the same time, few people who carry out fuel treatments, whether homeowners, gardeners, contractors, or land managers, are familiar with low-impact, sustainable methods to reduce fuels and their associated fire risk. Insurance inspectors, landscape architects, and landscape designers often do not understand the natural values and inherent risks in the WUI, and as a result they may require or design landscapes with too little or too much vegetation. Educational programs are needed to train these audiences in Best Management Practices (BMPs) for fuel-hazard reduction.

[11] See Chapter 4 for more information.

Chapters 4 and 5 include best management practices for creating homes and landscapes that can survive wildfire in the Santa Monica Mountains. These BMPs are based on the Conservation Principles found in Chapter 1. Chapter 4 also details specific actions that residents can take around their homes to create a fire-safe landscape while still conserving the surrounding environment. Best management practices in the Santa Monica Mountains do not currently include prescribed fire.

The University of California Cooperative Extension (UCCE) has proposed a series of educational workshops for homeowners, vegetation management contractors, land managers, landscape designers and architects, and insurance inspectors. Workshops for homeowners would cover the basics of area fire ecology and how to manage fuels in the home ignition zone. More in-depth workshops are proposed to address identification of native, endangered, and invasive plants, with an emphasis on specific species or specimens that pose high fire risk; techniques for measuring a treatment area, and for thinning and pruning trees and shrubs; and how to dispose of cut materials. The workshops would include a field component and reference materials, and be held in both English and Spanish. The information from these workshops would be beneficial to share with local fire department staff that conduct residential brush clearance inspections throughout the Santa Monica Mountains.

Property with heavy urban fuels.

Programs targeted at assisting residents to join together to reduce fuels can be very successful. This is especially important where parcels with absentee owners abut residential parcels. Statewide, neighbors are contacting absentee owners to get permission to clear adjacent properties in order to increase defensible space to their own homes and neighborhoods.

The City of Long Beach created a water-conservation incentive program to convert lawns to native plant gardens.[12] The program was so successful it quickly used all available funds. Los Angeles County Water District No. 29 is exploring a similar program for the Santa Monica Mountains. The Metropolitan Water District of Southern California offers rebates through their Be Water Wise[13] program. Such programs in the Santa Monica Mountains could be tied to fire-safe plants, as many native species are also fire safe.[14]

As discussed in Chapter 6, the Santa Monica Mountains Fire Safe Alliance is a cooperative group of agencies, municipalities, and communities who are dedicated to creating fire-safe solutions for the Santa Monica Mountains. As a collaborative group, they are well positioned to provide leadership for many of the efforts outlined in this CWPP, especially those concerning public-private communications and education. They recently

[12] www.lblawntogarden.com

[13] www.bewaterwise.com

[14] See Appendix J for more information on fire-safe plants.

produced *A Road Map to Fire Safety: How to Create Defensible Space in the Santa Monica Mountains.*[15] This document is a good basis for a community fire-safety educational program.

- *Implement best management practices to reduce urban fuels within the home ignition zone around all structures, and on all residential parcels.* — Santa Monica Mountains residents, resource professionals, landscape architects. **(S, O)**
- *Provide information and/or resources to help residents reduce urban fuels around their homes and in their neighborhoods.* — SMM Fire Safe Alliance and Fire Safe Councils. **(S, O, ★)**
- *Coordinate conservation and fire-safety objectives in educational programs, including promoting options for conserving water, and incentives to replace exotic plants with native species.* — Resource Conservation District of the Santa Monica Mountains, UCCE, water districts, and others providing community fire-safety education. **(O)**

- *Develop programs to reduce urban fuels for elderly and disabled residents who are not able to do this for themselves.* — Fire Safe Councils, homeowner's associations, senior centers, schools, and other community and social service organizations. **(S, O)**
- *Conduct workshops to train homeowners, fire department clearance inspectors, vegetation management contractors, land managers, landscape designers and architects, and insurance inspectors in techniques for low-impact, sustainable fire-risk reduction*. — UCCE and other Plan Partners. **(S)**
- *Identify and maintain public locations within the Santa Monica Mountains to be models for fuel reduction in the home ignition zone, based on the Conservation Principles and best management practices outlined in this CWPP.* — Public agencies. **(M, O)**
- *Work with the local insurance industry to provide education on appropriate local fuel-reduction practices, and materials for them to share with policyholders.* — SMM Fire Safe Alliance, Fire Safe Councils, and homeowner's associations, and community development and planning departments. **(S)**
- *Work to create an incentive program for drought-tolerant and fire-resistant landscaping, based on the Long Beach model.* — Water districts, Plan Partners. **(M)**

8.3.2. Hazard Tree Management Program

Throughout the Santa Monica Mountains, key ingress and egress routes are made vulnerable by the presence of hazardous trees along roadways. These trees could block access or threaten neighboring structures if they were to ignite. In many places throughout the Santa Monicas, for example, large eucalyptus and pine trees as well as unmaintained palm trees overhang roads and could quickly block access during a wildfire if they catch on fire or are downed.

Hazardous trees are also found scattered throughout SMM neighborhoods, in many instances directly adjacent to one or more

West Hillside Fire Safe Council project.
Source: Ken Wheeland

[15] www.fire.lacounty.gov/Forestry/RoadMaptoFireSafety.pdf

homes. Palm trees have been found to be especially hazardous because of the burning material and embers they can generate.

In many of these locations, hazardous trees will need to be removed, as was done with the successful project of the West Hillside Fire Safe Council. In other areas, the trees only need to be thinned or "limbed up." The Horizon Hills Fire Safe Council's hazardous tree thinning project is an excellent example of such efforts. Both of these local FSC efforts should be replicated in other SMM neighborhoods.

Note: As explained in Chapters 4 and 5, oak trees are protected throughout the Santa Monica Mountains, and permits are required even to prune them. Hence, oaks should not be included in any hazard tree management program. Hazardous trees were identified at each of the community meetings and their locations pinpointed on maps for each of the planning units *(see Part II)*. Details regarding priorities for removing or thinning hazardous trees within each planning unit are included in the Community Fire Safety Action Plans in Part II of this CWPP.

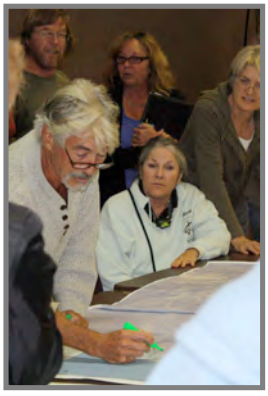
- *Develop and implement community-scale hazardous tree removal and thinning programs for all communities in the Santa Monica Mountains.* — Local Fire Safe Councils, homeowner's associations, and residents. **(M)**
- *Work with neighbors to pool resources to manage individual hazardous trees in neighborhoods or negotiate discounted rates to manage several in an area at a one time.* — Local Fire Safe Councils and homeowner's associations. **(S)**

8.3.3. Community Chipping Program

Community chipping programs are in place throughout California to allow residents to share in the use of a chipper to dispose of cut branches and such. A previous popular attempt in Topanga demonstrated that in order to be successful, a project should improve fuel reduction at a community scale. It must also include an associated educational program on reducing urban fuels in the home ignition zone. Fire Safe Councils and homeowner's associations can organize their neighborhoods to schedule chipping regularly, based on models developed by other Fire Safe Councils statewide.

- *Explore implementing a local chipper program.* — Fire Safe Councils, homeowner's associations, and neighborhood organizations. **(M)**

8.4. Assessing Risks at the Local Level



This CWPP focuses on wildfire prevention and community fire safety at the scale of the Santa Monica Mountains. More intensive analysis is needed at the local level for all the communities included in this CWPP. The Community Fire Safety Action Plans found in Part II of this CWPP are a beginning for that local analysis. Those plans can be used by local Fire Safe Councils and homeowner's associations to conduct a more detailed neighborhood or community-level risk assessment. A community mapping process similar to that used in the planning stages for this CWPP could be employed at that level; Appendix B has detailed instructions for the mapping exercise. Appendix L has a simple risk-assessment form that can be used by residents or neighborhood groups to evaluate homes and other structures.

A localized risk assessment for the high-risk communities in the Santa Monica Mountains should include an assessment of:

- Hardened homes: building materials, construction, and age of structures
- Community values at risk
- Urban fuels, home landscaping, and defensible space
- Hazardous trees
- Topography and location in the landscape
- Santa Ana winds and Red Flag conditions
- Community education and awareness
- Community emergency preparedness
- Community preparedness plans provided to public safety agencies
- Sources of local ignitions
- Ingress and egress routes
- Water sources
- Existing fuel reduction
- Impact of surrounding wildlands/vegetation
- Post-fire effects (e.g. floods, mudslides, soil erosion, invasive species, etc.)

➢ *Perform a basic risk assessment within individual neighborhoods and communities based on the CWPP mapping exercise*[16] *and/or the hazard assessment form.*[17] *Local emergency managers, fire agencies, state and federal land management agencies provide technical support.* — Fire Safe Councils, homeowner's associations, other neighborhood organizations. **(M)**

➢ *Use the results of these local risk assessments to prioritize fire-safety projects within communities.* — Fire Safe Councils, homeowner's associations, other neighborhood organizations. **(O)**

8.5. Reducing the Risk of Wildfire

Wildfires happen in the Santa Monica Mountains, and they are historically associated with human activity. The largest fires are tied to Santa Ana winds. Given this, fire-prevention steps should be taken to reduce the possibility of fires starting, and then spreading into a wildfire conflagration. However, this requires commitment and coordination from all residents and stakeholders in the Santa Monica Mountains.

For example, power lines blowing down in high winds is a known cause of wildfire here.[18] The cost to bury (or "underground") power lines is tremendous and the process is complex. It involves power companies and local, county, and state government.

> "The California Public Utilities Commission's (CPUC) Rule 20 sets policies and procedures for the conversion of overhead power lines and other equipment to underground facilities, a process called

[16] See Appendix B: Community Mapping Exercise.

[17] See Appendix L: Home Ignition Zone Structure Assessment Guide.

[18] See Chapter 3, section 3.1, Fire History, for statistics about fires started by power lines.

undergrounding… Under Rule 20, undergrounding projects are financed by utility rate money, combined rate funds and local tax proceeds, or private funds, depending on whether Rule 20A, Rule 20B or Rule 20C provisions apply."[19]

Local governments receive a portion of rates from utilities to use for this purpose. Rule 20A, which provides the most funding for undergrounding, is paid for by all ratepayers (in this case all Southern California Edison ratepayers), not just local ones. To qualify, the project must be submitted by local governments through a public process and meet the following criteria:

- "The location has an unusually heavy concentration of overhead facilities.
- The location is heavily traveled.
- The location qualifies as an arterial or major collector road in a local government's general plan.
- The overhead equipment must be located within or pass through a civic, recreational or scenic area."[20]

Many areas within the Santa Monica Mountains meet these criteria. Additionally, when compared to the value of a home in many neighborhoods, and the ability to share the cost of undergrounding over a long time period, the benefits become clearer.

As stated throughout this CWPP, there are many cost-effective ways to reduce the risks associated with power lines, one simpler example being to ensure that power lines are cleared of any vegetation below or around them. Another potential solution is to set up transformers with emergency disconnects and warning systems for the utilities.

There was widespread concern at community meetings regarding the possibility of illegal and/or legal campfires starting wildfires, mainly on public lands. Local fire history shows that legal campfires have not been a source of ignition in the Santa Monica Mountains *(see Fire History Data in Appendix E)*.[21] Legal fire pits and camp stoves are regulated, and restricted during high fire-hazard conditions. Yet it is still important to enforce existing regulations to eliminate this potential risk. These enforcements include "cold camping" (e.g. no camp fires or barbeques) and stricter regulations during Red Flag conditions (e.g. no camping).[22] Additional concerns included locations of proposed new public campsites, which should be located in generally safer areas, such as areas that are easy to evacuate.

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[19] www.sce.com/PowerandEnvironment/EnvironmentalCommitment/Beautification/

[20] www.sce.com/PowerandEnvironment/EnvironmentalCommitment/Beautification/

[21] Robert Taylor, National Park Service, personal communication, April 27, 2010; and National Park Service (2005), *Final Environmental Impact Statement for a Fire Management Plan,* Santa Monica Mountains National Recreation Area; www.researchlearningcenter.org/samo/planning/FireEIS/.

[22] Mountains Recreation and Conservation Authority: http://mrca.ca.gov/DEIR-Vol-I-MRCA%20(D)/5.6%20Fire%20Hazards-DEIR-WithFigures.pdf, http://mrca.ca.gov/MRCA_Ordinance_3-3-10.pdf , http://documents.coastal.ca.gov/reports/2009/6/W16a-6-2009-a3.pdf;

Santa Monica Mountains Conservancy: http://www.smmc.ca.gov/rules.html, http://smmc.ca.gov/fire-prevention.html;

National Park Service: http://www.nps.gov/samo/parkmgmt/lawsandpolicies.htm#CP_JUMP_191766;

State Parks: http://www.stateparks.com/santa_monica_mountains.html

Ironically, another source of wildfire in the Santa Monica Mountains is the equipment used during fuel-reduction activities. For this reason there are guidelines in terms of when and how to clear fuels, such as early in the morning and well before fire season. This is one reason why fuels must be cleared by the annual fuel-hazard reduction deadline of May 1st inland and June 1st on the coast. However, extra care must be taken when reducing fuels in the spring, as this is when ground-nesting birds are in their nests, and many native perennials are blooming. *See Chapters 4 and 5 for protecting native species while undertaking fuel-reduction activities and Chapter 4 for details regarding how to safely reduce fuels.*

Finally, community Arson Watch was started in the Santa Monica Mountains in 1982. Currently there are six teams in place throughout the area. Every community—especially those bordering wildlands—should have an active Arson Watch program. For more information, visit www.arsonwatch.com or call 310-455-4244. Several known "party spots" were identified on the community meeting maps throughout the Planning Area. Patrolling these known sites should be a part of any Arson Watch program.

- *Ensure there is an active Arson Watch program for all neighborhoods.* — Homeowner's associations, Fire Safe Councils, and other community-based organizations. **(S)**
- *Coordinate with National Park Service to get copies of CWPP maps identifying local wildfire risk and hazard areas.* — Arson Watch. **(S, ★)**
- *Enhance public education efforts regarding fire danger on public lands, including closures during Red Flag conditions.* — Public land managers. **(M, O)**
- *Explore options to prioritize and bury power lines wherever possible, including local assessment fee to share costs with neighboring residents.* — Local, county, and state governments and utilities. **(L)**

8.6. Enhancing Fire Protection

8.6.1. Resources for Fire Protection

Very few wildland Type III fire engines are stationed in the Santa Monica Mountains, yet these would function well in many of the remote and geographically challenging locations found here.

Ventura County Fire Station #33 is located in Lake Sherwood. It is one of the oldest Ventura County stations and provides protection to the neighborhoods in the northern part of the Santa Monica Mountains there. This is a strategically important station for Lake Sherwood and Hidden Valley, and hence should not be relocated.

Wildfire incidents create the need for emergency-support facilities, such as incident command centers and staging areas. There are many pre-established locations, although circumstances may prevent their use. Therefore, an ongoing search for suitable sites is needed.

Information gathered at the CWPP community meetings will augment existing data that fire departments now use to locate resources for fire protection. Locations of pools and gates, warnings about known road issues, as well as high-risk and hazard areas can help local and out-of-town firefighters to protect residents. Organized neighborhoods, through Fire Safe Councils or homeowner's associations, can assist fire protection agencies in these efforts.

- *Support National Park Service to analyze procurement of additional Type III wildland fire engines for the Santa Monica Mountains.* — Plan Partners. **(M)**
- *Maintain or enhance existing staffing levels and stations throughout the Santa Monica Mountains.* — Ventura and Los Angeles County Fire Departments. **(S, O)**

- *Identify additional incident command centers and staging areas.* — Plan Partners. **(M)**
- *Coordinate with National Park Service to procure data generated from community meetings.* — Fire protection agencies. **(S, ★)**
- *Seasonally work with local fire stations to develop detailed pre-fire deployment plans and structure protection plans for use by both local and out-of-area firefighters.* — Fire Safe Councils. **(S, O)**

8.6.2. Water

Water is critical for successful fire suppression. Ventura County's current minimum fire-fighting water requirement for small homes that are on a private system is approximately 5,000 gallons of accessible water. Larger homes require more storage. As described in Chapter 4, similar standards are in place in Los Angeles County. Rural residents ideally would have up to 10,000 gallons of available water exclusively for structural fire protection. Chapter 4 identifies several options for water storage. More water storage and local water conservation measures are critical to ensure that residents and firefighters have adequate water to suppress a fire.

The water systems in the Santa Monica Mountains are designed to provide adequate water for structural fire fighting. During wildland fires, domestic water supplies are used for structure protection (i.e. meaning protecting multiple structures) as well as for wildfire suppression. This combination stresses local systems. Additional water resources are needed for wildland fire fighting. Augmenting water storage that is not for domestic use will help wildfire suppression efforts. *See the Wildfire Environment section for each Fire Safety Action Plan for more localized information on water resources in the communities of the Santa Monica Mountains.*

- *Educate residents on the needs and benefits of water storage.* — Fire Safe Councils, Resource Conservation District, water purveyors, watershed councils, and other interested partners. **(S, O)**
- *Educate residents on how to conserve water, especially during wildfire events.* — Fire Safe Councils, homeowner's associations, and fire agencies. **(S, O)**

- *Equip swimming pools with generators and pumps for emergency use, and put up a pool sign near property address sign.*[23] — Santa Monica Mountains residents. **(S)**
- *Collaborate with Fire Safe Councils, homeowner's associations, and other community groups to clearly mark fire hydrants throughout the Santa Monica Mountains, and educate residents on keeping them cleared.* — Fire departments, water providers, and local government. **(M, O)**
- *Educate Fire Safe Councils, homeowner's associations, and neighborhood associations about existing water district back-up power generation at water pump locations throughout the Santa Monica Mountains. Cooperate with water districts to explore augmenting the system where needed through local parcel assessments or other financing options.* — Water purveyors, Plan Partners. **(M)**
- *Implement educational programs for local residents on water supply issues, capabilities, and history in the Santa Monica Mountains, and how this relates to wildfire protection.* — Water purveyors. **(M)**
- *Review water supply issues identified in the community meetings.*[24] — Water purveyors. **(S)**

8.6.3. Roads

Roads provide emergency response access in addition to ingress and egress for residents. Fire trucks and other emergency vehicles are slowed in their response when narrow roads and/or unstable, undersized bridges are encountered, or at times when landslide/flood debris results in limited passage. Several areas were identified in the community meetings as needing bridge or road repair work. These are shown on the meeting maps for each planning unit in Part II.

Throughout the Santa Monicas, trash cans, cars, and other items often impede effective ingress and egress. In Los Angeles County, the law states that trash cans are only allowed on the street after 5 pm on the day preceding and until 8 pm on the day of waste collection.[25] Roadside vegetation fuel reduction is the responsibility of the adjacent homeowner.

Policies and associated enforcement are needed to address the crowding of critical evacuation routes. Key evacuation routes should always be kept clear of parked vehicles, and obstructions such as trash cans should not be left on the road beyond those hours allowed by law. Strict standards need to be identified and enforced to ensure that evacuation routes are kept clear at all times. Incentives should be explored for creating off-street parking. One tool for homeowner's associations and neighborhood organizations is to request that key access roads be posted as "Fire Lanes," and key turnaround

[23] See Chapter 4 for details.

[24] See Part II.

[25] Los Angeles County Code, Waste Collector Permits, Containers--Hours for placement: Chapter 20.72.110. http://search.municode.com/html/16274/index.htm.

areas posted as "Tow-Away Zones." This would require community cooperation to ensure that neighbors comply to facilitate safe ingress and egress for all.

- *Cooperate to remove trash cans and other road obstructions from streets in a timely and legal manner.* — Santa Monica Mountains residents. **(S, O)**
- *Maintain (trim back) vegetation on roads along private properties. Remove all dead and dying vegetation, and mow fuels along driveways and roads to county and city codes. Prune all branches that are hanging over private roads and driveways to a height of at least 16 feet above the ground (13'6" for oaks).*[26] — SMM residents. **(S, O)**
- *Identify access roads to post as "Fire Lanes" and key areas as "Tow-Away Zones" at the neighborhood level.* — Homeowner's associations and neighborhood organizations in cooperation with local fire departments, public works departments, and Caltrans. **(M)**

- *Work with fire departments, law enforcement, and California Highway Patrol to identify potential problems with road ingress and egress that increase emergency response times.* — Counties' and cities' Public Works departments and/or Caltrans, and Fire safe Councils. **(S)**
- *Develop, implement, and enforce strict policies governing maintenance of evacuation routes to ensure that they are free of obstructions.* — Local governments. **(M)**

Gates

Gates can pose a serious obstacle to safe and effective evacuation. Automatic gates that do not open during power outages are especially dangerous, and may be illegal. Ventura County requires battery backup for gates serving five or more homes, and recommends it for gates serving one to four homes.

- *Initiate informational programs to educate residents about the importance of easily passable gates during emergencies.* — Law enforcement, fire departments, Fire Safe Councils, and homeowner's associations. **(S, O)**

8.6.4. Signage of Roads and Structures (Addressing)

Throughout the Planning Area, firefighters and other emergency personnel are faced with the challenge of finding homes quickly and safely during an emergency. At a minimum, existing city and county standards must be enforced that require streets and homes to be visibly addressed. These standards mandate that signs be 4 inches high, with a contrasting backing, and in accordance with the California Building Code.

- *Collaborate to enforce existing signage requirements for streets and residences.* — Law enforcement, fire departments, counties, and cities. **(M, O)**
- *Explore incentives for private road and address signage conformance, including public education.* — Law enforcement, SMM Fire Safe Alliance, Fire Safe Councils, and homeowner's associations. **(M)**

[26] See Chapter 4 for specifications.

Internet-based road maps are incorrect for several areas in the Santa Monica Mountains. For example, many fire roads are shown as public access roads. Many of these locations were identified in the community meetings and are listed in the Fire Safety Action Plans in Part II.

Both Google (http://maps.google.com/support/bin/answer.py?hl=en&answer=98014) and MapQuest (www.mapquesthelp.com/app/answers/detail/a_id/911 - rn:sesssion%23*)* have online options for editing incorrect data. Fire Safe Councils and other neighborhood groups can contact theses companies to correct the information, and to offer alternative routes. (Yahoo and Thomas Brothers will not accept data corrections.) In some cases, public safety agencies may need to support these community efforts when incorrect data could compromise safe and effective evacuation.

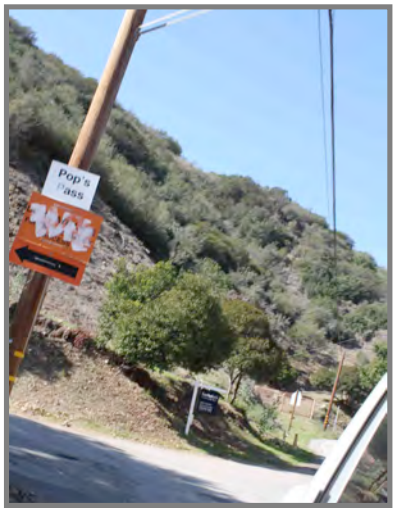
- *Contact Google, MapQuest, and others to correct errors in Internet-based road and address information in the Santa Monica Mountains, for areas identified at community meetings.* — Fire Safe Councils, homeowner's associations, neighborhood organizations in conjunction with public safety agencies. **(S, O)**

8.7. Ensuring Safe and Effective Evacuation

8.7.1. Developing Evacuation Routes and Sites

Many neighborhoods in the Santa Monica Mountains have limited evacuation options. All evacuation sites and routes are driven by the specific incident. Community members used their local knowledge to identify potential evacuation routes and safe areas on the maps at the 2009–2010 community CWPP meetings. This information is being passed on to local law enforcement and fire agencies to review for potential use.

If residents are trapped because their escape is cut off and the fire is already at their location, there are steps to take to increase the chance of survival. These steps are outlined in "Ready, Set, Go."[27] This differs tremendously from sheltering in place, which is not recommended and is only feasible on the advice of public safety officials. Residents must understand that the consequences associated with sheltering in place extend beyond the individual and could threaten firefighter safety and overall suppression effectiveness.



Participating residents generated several ideas regarding the most effective ways to communicate evacuation information to the public. These are included in the community-identified project sections of each Community Fire Safety Action Plan *(see Part II).* An example is to GPS the locations and elevations of approved safe areas and put them and instructions on a "pocket card" to distribute to local residents, as well as posting the information on the Internet. There are several gathering places

[27] Los Angeles County: www.fire.lacounty.gov/safetypreparedness/ReadySetGo/pdf/Ready Set Go 09.pdf, Ventura County: http://fire.countyofventura.org/LinkClick.aspx?fileticket=9hQO1rR_ezw=&tabid=231

in the SMM such as camps and retreat enters, that may be occupied during fire season. Occupants may not have their own transportation. These sites need to be surveyed and included in local evacuation planning.

- *Collaborate to develop local evacuation plans and update them as needed, with input from local fire departments and law enforcement.* — Fire Safe Councils, homeowner's associations, and neighborhood groups. **(S, O)**
- *Develop and distribute local safety information in the event that citizens are unable to evacuate.* — Fire agencies and law enforcement. **(M)**
- *Review the community-identified information generated through this planning process for development as incident-specific evacuation areas and routes.* — Fire departments and law enforcement. **(S)**
- *Review community-identified alternate evacuation options with local fire departments.* — Counties' and cities' Public Works departments, Caltrans, and Fire Safe Councils. **(M)**
- *Develop and/or upgrade appropriate sites (including those identified at community meetings) to function as evacuation sites and/or disaster centers during emergency situations.* — Fire departments and Red Cross **(M)**
- *Develop and distribute "*Ready, Set, Go" *evacuation-planning materials for all areas within the Santa Monica Mountains to educate residents on evacuation in their community.* — Counties and cities, law enforcement, Red Cross, fire departments, and Fire Safe Councils. **(S, O)**
- *Identify leadership and resources to develop evacuation procedures and information for vulnerable populations.* — Counties and cities, social services agencies, senior centers, law enforcement, fire departments, Red Cross, Fire Safe Councils, and other interested local, state, and federal agencies. **(M)**
- *Survey gathering places in each neighborhood and include in local evacuation planning.* — Fire Safe Councils and homeowners associations, with fire departments and law enforcement. **(S)**

8.7.2. Evacuation Plans for Pets and Large Animals

Many residents in the Santa Monica Mountains have pets, large animals (especially horses), or both. A system of evacuation sites for pets and livestock needs to be developed. Many shelters will not allow animals other than assistance or service dogs. The Red Cross and Humane Society are two good resources. The newly released Los Angeles County "Emergency Survival Guide" contains excellent information for dealing with horses in an emergency.[28] In Ventura County, the Animal Regulation Department offers a website[29] with information on animal evacuation, another website specific for horses,[30] and a brochure entitled "Disaster Planning for Livestock Owners."[31]

The Los Angeles County Department of Animal Care and Control, Equine Response Team[32] (LACDACCERT), and the Topanga Canyon Equine Education Team currently provide leadership on working

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[28] County of Los Angeles, "Emergency Survival Guide," http://lacoa.org/PDF/EmergencySurvivalGuide-LowRes.pdf

[29] http://portal.countyofventura.org/portal/page/portal/animalreg/EVAC/

[30] http://fire.countyofventura.org/Prevention/FireLifeSafety/HorseSafety/tabid/190/Default.aspx

[31] County of Ventura, Animal Regulation Department, *Disaster Planning for Livestock Owners,* http://portal.countyofventura.org/portal/page/portal/animalreg/Documents/livestock.pdf

[32] Los Angeles County Department of Animal Care & Control Volunteer Equine Response Team (LACDACCERT), Mary Lukins, 818-991-8065.

with horse owners to safely evacuate horses, or to provide shelter locations in Los Angeles County. A similar program exists in Ventura County called the Emergency Volunteer Rescue Team (EVRT).[33]

- *Work with Plan Partners, Red Cross, Humane Society, counties, and local veterinarians to identify existing options for local pet and livestock emergency evacuation. Work through local feed stores, veterinarians, boarding facilities, and animal associations to educate residents on options.* — Fire Safe Councils. **(M, O)**
- *Collaborate to develop local horse evacuation plans, in conjunction with LACDACCERT and EVRT.* — Horse owners. **(S, O)**
- *Trailer-train horses to safely evacuate. — Horse owners.* **(S, O)**

8.8. Community Emergency Preparedness

The difference between being prepared for emergencies or not can literally be the difference between life and death. It's to everyone's advantage to be ready for the inevitable natural disasters that face us, as wildfire and other emergencies will continue to be a reality for Santa Monica Mountains residents. Actions can be taken at the neighborhood and community level to help ensure that all local residents and property are as safe as possible.

Community Emergency Response Teams (CERT) are "an organization of volunteer emergency workers who have received specific training in basic disaster response skills, and who agree to supplement existing emergency responders in the event of a major disaster."[34] CERT trainings build disaster response skills in fire safety, search and rescue, team organizing, and medical operations pertaining to disasters. Such skills become extremely valuable in situations where professional responders cannot act immediately. All four local governments (Los Angeles and Ventura counties, Malibu, and Calabasas) offer CERT trainings. CERT teams are in place throughout the Santa Monica Mountains. Every neighborhood or homeowner's association should have at least one functioning CERT team.

- *Work with local fire department and interested communities to develop new or enhance existing CERT programs.* — Counties' and cities' emergency planning departments. **(M, O)**
- *Contact local emergency planning departments to learn how to participate in local CERT programs.* — Homeowner's associations and Fire Safe Councils. **(S)**
- *Ensure that each neighborhood has a functioning CERT team.* — Homeowner's associations, Fire Safe Councils, and residents. **(S)**

8.8.1. Emergency Notification and Communications

Law enforcement, fire departments, and related agencies have a well-rehearsed process for communication among first responders. Difficulties remain regarding how to effectively and rapidly alert residents in the most remote areas. Options need to be explored to improve emergency communication in these areas. Social networking options such as Facebook and Twitter, while not infallible, are proving their usefulness in rapid and

[33] Ventura EVRT: http://portal.countyofventura.org/portal/page/portal/animalreg/EVRT/

[34] http://en.wikipedia.org/wiki/Community_Emergency_Response_Team

effective communication when normal networks may not be functioning. Using these communication tools should be fully explored.

There are mass notification systems available for all residents in the Santa Monica Mountains. This is a service provided by local governments to call residents in the case of an emergency in their community. Residents are encouraged to register both their home and cellular phone numbers at the following websites:

- Unincorporated Los Angeles County—www.alert.lacounty.gov
- Unincorporated Ventura County—http://portal.countyofventura.org/portal/page/portal/cov/emergencies/reverse911/reverse911register
- City of Malibu—www.ci.malibu.ca.us/index.cfm/fuseaction/DetailGroup/navid/471/cid/11670/
- City of Calabasas—www.cityofcalabasas.com/departments/PublicSafety/AEN.html

Several areas were identified that have problems with cellular service. Improvements to those areas would facilitate emergency communications. These include areas of Corral Canyon, lower Mulholland Drive, Decker Canyon Road, Encinal Canyon Road, Yerba Buena and Mipoloma Roads, and upper Rambla.

- *Collaborate to explore additional measures for alerting residents to pending emergencies.* — SMM Fire Safe Alliance, law enforcement, fire agencies, Fire Safe Councils, and homeowner's associations. **(S, O)**
- *Register cellular phones and/or email addresses with a local emergency mass-notification system.* — Santa Monica Mountains residents. **(S, ★)**
- *Contact cellular providers to explore additional cellular tower locations.* — Homeowner's associations, Fire Safe Councils, and neighborhood organizations. **(M)**

8.8.2. Residential Emergency Preparedness

Effective evacuation planning depends on residents being prepared. This is especially important for families with small children, elderly and disabled citizens, and other vulnerable populations. Residents in remote areas of the Santa Monica Mountains must be especially prepared for evacuation. To this end, all residents should create a Family Disaster and Evacuation Plan. Information is available from the American Red Cross at: *www.redcross.org/preparedness/cdc_english/evac-plan.html* regarding how to do family disaster planning, and *www.redcross.org/preparedness/cdc_english/evac-1.html* for how to create a family evacuation plan. Additional information is available from the Department of Homeland Security at: *www.ready.gov/america/index.html*.

In both Los Angeles and Ventura counties, the "Ready, Set, Go" programs provide basic information on emergency preparedness. See footnote 27 in this chapter for links to online versions of those documents.

In remote rural neighborhoods or communities, phone trees can be an effective local strategy for disseminating information quickly, as long as they are maintained. Homeowner's associations, road associations, and local schools are all good venues for setting up a phone tree. Simple steps regarding how to establish a phone tree can

be found at: www.ehow.com/how_4325_set-emergency-phone.html. Commercial options for doing this on a larger scale are available through One Call Now[35] and Call-Em-All.[36]

- *Prepare for wildfire and other emergencies by creating family disaster and evacuation plans.* — Santa Monica Mountains residents. **(S, O, ★)**
- *Consider storing valuable items in a fire-safe urban area during extreme fire weather conditions.* — SMM residents in remote rural areas. **(S, O)**
- *Organize emergency phone trees in each neighborhood and keep them up to date. Make sure everyone in the neighborhood is on someone's call list, and that deaf residents get contacted in person.* — Fire Safe Councils and homeowner's associations. **(S)**
- *Conduct disaster preparedness and emergency response drills, throughout the Santa Monica Mountains*. — Counties and cities, law enforcement, fire departments, Fire Safe Councils, Red Cross, and senior centers. **(S, O)**

8.9. Promoting Fire-Safe Education

Many people are enthusiastic to create a fire-safe home once they understand why it is to their advantage. To this end, educational programs targeted at local residents can be very successful.

A number of educational/informational program ideas were proposed by community members through this CWPP process. Some of these are:

- Awareness campaign: fuel reduction and preparedness (on TV etc.).
- Community education on pool pumps, generators, and home fire-preparedness equipment.
- Education in schools, in coordination with school/agency fire prevention.
- Education on how to survive if caught in a fire.
- Education program on "house out," and a home ignition zone resource list.
- Local news articles relative to current fire activity.
- Make magnet with emergency radio stations and phone numbers, and mail to residents.
- Training program for residential home defense from wildfire/CERT training.

- *Review and evaluate community ideas regarding fire safety education and develop a strategic plan for most effectively educating Santa Monica Mountains residents.* — SMM Fire Safe Alliance. **(M)**
- *Unify the area-wide community fire-safety education message, including public service announcements in all local media.* — Fire Safe Councils, SMM Fire Safe Alliance members, local businesses, local media outlets, and other interested participants. **(S, O)**

8.9.1. Fire-Safety Education in Schools

Educational programs in the local schools are a great way to get the word out about fire safety and emergency preparedness. The National Park Service has developed a local curriculum, "Studies of Wildland Fire

[35] www.onecallnow.com

[36] www.callemall.com

Ecology."[37] Community projects such as fire-safety education signs created by local schoolchildren are very effective. These informative signs can be placed in highly trafficked hazard areas throughout the community to educate residents and visitors regarding the potential fire risks associated with their activities and encourage them to be fire safe.

- *Implement fire-safety curricula in all grade levels throughout the area, in conjunction with community educational projects.* — School districts, land management agencies, and Fire Safe Councils. **(M, O)**

8.9.2. Fire-Safety Education for New Residents and Tourists

The Santa Monica Mountains experience large influxes of tourists visiting the area each year, especially during fire season. These visitors often do not have experience with fire in the wildland-urban interface.

Social science research shows that 60% of new residents move within their county, and they tend to be among the most active and willing participants in fire-safety activities.[38] Educational programs to provide local information for new residents who may be unfamiliar with living in the canyons and ridges of the Santa Monica Mountains are important. It may be these new residents who can most effectively carry the fire-safe message to their new neighborhoods.

Fire safety education programs are needed targeting the tourism, development, and real estate industries, as well as their clients.

- *Develop fire-safety educational programs for local tourism industries.* — Fire Safe Councils, visitor information centers, SMM Fire Safe Alliance, Chamber of Commerce, and local governments. **(M)**
- *Develop fire-safety educational programs targeted at educating new residents to be distributed through water districts, other utilities, chambers of commerce, insurance industry, and other interested partners.* — Fire Safe Councils, SMM Fire Safe Alliance, and local governments. **(M)**

8.10. Integrating Community Fire Safety into Local Policies

The Santa Monica Mountains Fire Safe Alliance has established itself as a clearinghouse for fire safety in the region:

> "Complying with defensible space, brush clearance, and fuel modification regulations in the Santa Monica Mountains can raise issues of property ownership, regulatory jurisdiction, environmental preservation, and watershed management. Managing wildfire safety involves a myriad of stakeholders in the Santa Monica Mountains and requires a collaborative effort to protect private and public property. The Santa Monica Mountains Fire Safe Alliance is committed to creating solutions to this challenging situation. When a property owner or community group raises a concern or question impacting multiple jurisdictions with any

[37] National Parks Labs (July 2001), Studies of Wildland Fire Ecology High School Program, Santa Monica Mountains National Recreation Area. www.nps.gov/samo/forteachers/upload/FireEcologyManualsm.pdf. Note: some sections of this curriculum are out of date, such as Section 11.

[38] Sarah McCaffrey, "Talking Fire Without Getting Burned: Selected Findings from Social Science Research," Talking Fire Webinar, February 23, 2010. www.nifc.gov/fire_info/PIO_bb/Background/ResearchSays.pdf. USDA Forest Service, Northern Research Station, smccaffrey@fs.fed.us.

member of the Alliance, it can be brought to the Fire Safe Alliance where all affected agencies can be informed and involved in coordinating a solution."[39]

Therefore, the Alliance is a logical place to explore new or changed policies to further local fire safety. Citizens at the community meetings raised several policy issues. Many were focused on improving enforcement of "brush clearance"(or more appropriately called "fuel reduction" since a cleared landscape is not the aim) and discouraging the use of hazardous trees in the landscape.

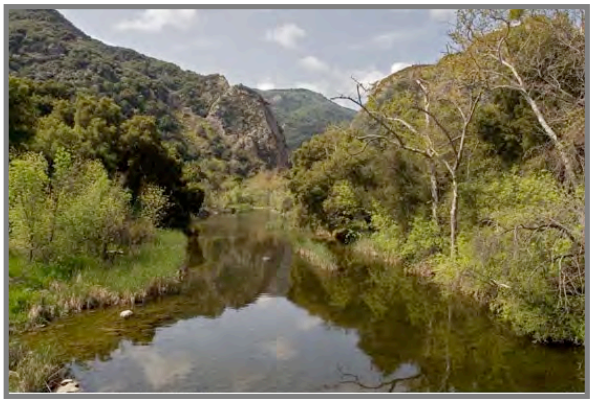
- *Work together to ensure integration among planning efforts in the Santa Monica Mountains that could affect the area's long-term fire safety, including at the community planning and public information levels.* — SMM Fire Safe Alliance and other relevant partners. **(S, O)**
- *Explore stricter enforcement standards for reduction of urban fuels, including dedicated departments for educating residents and implementing defensible space around all structures.* — Local governments and agencies. **(L)**

- *Discourage planting of non-native hazardous trees and develop incentive programs for removal of existing ones.* — Local governments and agencies, local plant nurseries. **(M)**
- *Support implementation of mandatory, enforceable disclosure regulations for all local real estate transactions regarding the wildfire risks and hazards identified in this CWPP.* — Counties. **(M)**

8.11. Integrating Fire Safety and Conservation Efforts

The Santa Monica Mountains National Recreation Area is a world-class locale for Mediterranean-type vegetation. This coupled with its proximity to one of the largest urban areas in the world make it especially important wildlife habitat.

Malibu Creek is home to one of the last remaining runs of endangered southern steelhead and lamprey eel in southern California. Wildfire and its associated prevention and suppression activities can quickly threaten the viability of these populations. Therefore, these activities need to be done with an awareness of their potential impact on threatened populations.



Source: http://zev.lacounty.gov

Fish and other aquatic species are especially sensitive to sediment and changes in water chemistry when flame-retardant substances get washed into streams. These both tend to come in pulses, usually of short duration. Canopy cover changes associated with riparian vegetation losses can increase water temperatures during already warm,

[39] Santa Monica Mountains Fire Safe Alliance (February 2010), "A Road Map to Fire Safety, How to Create Defensible Space in the Santa Monica Mountains," www.fire.lacounty.gov/Forestry/RoadMaptoFireSafety.pdf.

stressful summer conditions. The combination of nutrient input from fire retardant and water temperature increase from canopy loss can result in spikes in algae production which can cause lowered dissolved oxygen, putting fish at survival risk. In addition, loss of shrub and tree canopy to fire increases erosion by subsequent rainfall, which increases stream sedimentation. Such sedimentation can cover gravel beds necessary for successful steelhead spawning. Thus, fire and its suppression efforts can put a stress on already compromised steelhead reproduction and survival.

The Santa Monica Mountains are also home to populations of bobcats and mountain lions who may be limited in their ability to leave a burning area because of fragmented habitat and movement barriers.

Finally, native oak trees are a proven heat and ember sink during wildfire, and provide many important benefits to the local ecosystems. Planting of oaks throughout the Santa Monica Mountains in appropriate places would provide multiple benefits.[40] Oaks do not grow in coastal bluff habitats, in dry chaparral habitats, or high on hot, dry, west-facing or south-facing slopes. The most fire-resistant oaks (coast live oaks) need deep soil or fractured rocks with accessible groundwater.

Residents should work with existing native species that are on site. Many chaparral shrub species are fairly fire-resistant. Properly managed coastal sage scrub habitat is not a hazard if fuels are pruned to 18 inches during fire season (after flowering).

- *Collaborate to remove arundo and other invasive species along riparian corridors to reduce impacts to stream banks during wildfire.* — Land managers and residents. **(M)**
- *Collaborate with state and federal land managers to keep flame-retardant substances out of critical watersheds as much as possible.* — Fire agencies. **(M)**
- *Work with fire agencies after fires to minimize erosion potential to local streams. Bulldozed and hand crew-built fuelbreaks should be rehabilitated in watersheds with endangered fish species, as sediment can smother critical spawning areas.* — Land managers. **(S, O)**

- *Explore options for wildlife corridors, especially in the Malibu Canyon area.* — Land managers. **(M)**
- *Plant native oak trees where appropriate to serve as heat and ember sinks, while providing their myriad ecosystem functions.* — Residents and land managers. **(O)**
- *Manage existing native habitat within the home ignition zone for fire safety and sustainability.* — Residents, resource professionals, and land-management agencies. **(O)**

[40] If coast live oaks are desired, plant with acorns, not nursery-grown seedlings in pots or boxes.

8.12. Designation of Wildland-Urban Interface Areas

Referred to throughout this CWPP, the "wildland-urban interface" (WUI) is a general term describing the area where homes and wildland meet. It also has a federal definition as the "line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuel as defined in the Federal Register."[41] It is within the WUI that specific federal management actions take place in order to reduce fuel risks, based on guidelines established by the Healthy Forests Restoration Act (HFRA).

> "The HFRA provides administrative procedures for hazardous-fuel-reduction projects on [federal] lands in the WUIs of at-risk communities. The act encourages the development of Community Wildfire Protection Plans under which communities will designate their WUIs, where HFRA projects may take place."[42]

Concurrently, federal agencies are charged with developing WUI designations for the properties they manage.

Given that the SMMNRA is the most urban national recreation area in the nation, the WUI for the Santa Monica Mountains is designated as the entire CWPP Planning Area.

- *Accept the entire Planning Area as the WUI designation in this CWPP*. — Federal agencies. **(S, ★)**

8.13. Designation of Communities at Risk

As described in Chapter 1, many eligible communities in the Santa Monica Mountains have already been listed as a Community At Risk (CAR), either by federal or state designation. A community designated as "At Risk" theoretically will receive more fuel-reduction projects on adjacent federal lands, and be more competitive when competing for National Fire Plan and other state or federal funds. However, some insurance companies are said to use this listing to raise rates for listed areas. For a time, listed communities were required to meet stricter building codes in California, but that has since been replaced with the Fire Hazard Severity Zone ratings.

Existing designated Communities at Risk in the Santa Monica Mountains Planning Area are:

- Calabasas
- El Nido
- Glenview
- Malibu Bowl
- Monte Nido
- Point Dume
- Topanga
- Cornell
- Fernwood
- Malibu
- Malibu Vista
- Seminole Springs
- Sylvia Park
- Topanga Park

There are other communities in the Planning Area not included in this list. Technically, any community in the Santa Monica Mountains would qualify as a Community At Risk. Many communities not on the list could make

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[41] *Federal Register* (January 4, 2001), "Implementation Direction for Identifying and Prioritizing Hazardous Fuel Reduction in Wildland-Urban Interface/Intermix." Region 5. Vol. 66, No. 3: pp. 751–754.

[42] Healthy Forests Initiative and Healthy Forests Restoration Act (February 2004), *Interim Field Guild, Title I, Wildland-Urban Interfaces Within or Adjacent to At-Risk Communities.* FS-799: p. 15. www.fs.fed.us/projects/hfi/field-guide/web/page15.php.

the argument that they fit within one of those already listed (e.g. "Malibu"). In Los Angeles County, it is believed that unlisted communities should decide themselves if they want to be listed. If so, they can work with their local fire department to be added to the statewide list. The California Fire Alliance has a process for adding new communities to this list, which is found on its website: www.cafirealliance.org/communities_at_risk/communities_at_risk_addtolist.

- *Add relevant communities to the Communities At Risk list as so desired.* — Additional Santa Monica Mountains communities in Los Angeles County. **(S, ★)**

In Ventura County, the Ventura County Fire Department proposes adding the following communities to the Communities at Risk list:

- Hidden Valley/Lake Sherwood/Carlisle Canyon
- Yerba Buena Canyon Area (including Pacific View, Cotharin, Yellow Hill)

- *Add the above-listed Santa Monica Mountains communities to the Communities At Risk list.* — Ventura County Fire Department. **(S, ★)**

8.14. Facilitating Santa Monica Mountains Fire Safety in the Long Term

As described in Chapter 9, project and plan monitoring is an integral element to the long-term success of this plan. Monitoring strategies need to be developed early in the process to ensure useful data collection.

- *Work with National Park Service, Resource Conservation Districts, Natural Resources Conservation Service, and others to develop a long-term ecological monitoring program to track the effects of project activities on ecological processes and functions.* — Fire Safe Councils, community-based organizations, interested residents. **(M)**

Finally, no plan is ever permanent. This plan is written in 2010 based on current conditions and best available information. The field of fire safety is rapidly changing. It is likely that new developments will occur in coming years. Therefore, it will be important to review this plan at least every five years and update it as needed. This can be done as an Appendix to this document.

- *Use the Community Fire Safety Action Plans and the Project Implementation Matrix from this CWPP to prioritize and track existing and future projects at the local level, and update local information in this CWPP.* — Fire Safe Councils. **(M)**

- *Review the Santa Monica Mountains CWPP at least every five years and update it as needed, using a collaborative public process.* — All Plan Partners (signatories). **(M)**