Communities of the Angeles Forest:

REGIONAL WILDFIRE PLANNING OVERVIEW

THIS DOCUMENT WAS WRITTEN BY

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funding provided by a National Fire Plan grant from the USDA Forest Service
through the California Fire Safe Council.

June 30, 2010

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This document is written as an introduction to community fire planning for people living and/or working in and around the foothills, valleys, and lakes surrounding the Angeles National Forest, especially the Los Angeles County side of the National Forest.

Its purpose is to provide background information on "community wildfire protection plans" (CWPPs) in particular, and community wildfire planning in general, to further fire-safety efforts in these communities and throughout Los Angeles County.

Together with the overview of wildfire prevention planning and CWPPs, this document aims to illustrate in a format similar to a template, the contents of a successful fire-prevention plan. It uses the example of the recently developed Santa Monica Mountains Community Wildfire Protection Plan. That CWPP is utilized herein to convey descriptions of the purpose and audience for each chapter, the point being to help Angeles National Forest-area residents understand what a CWPP for their communities might look like.

What is a Community Wildfire Protection Plan?

A community wildfire protection plan or "CWPP" is a *collaborative*[1] or group-effort planning document that residents participate in creating. It is used to identify priority actions to reduce the risk of wildfire where participants live and work.

The concept of CWPPs was developed in 2003 in the federal legislation known as the Healthy Forests Restoration Act[2] (HFRA). CWPPs have three basic requirements: 1) they are collaborative—meaning everyone who is interested participates in this broad-based process; 2) they identify actions to reduce *structural ignitability*[3]—meaning they focus on keeping homes and other buildings from burning; and 3) they identify actions to reduce *hazardous fuels*[4]—meaning those things around our homes and neighborhoods that will readily burn during wildfire.

The most successful community fire plans are those with maximum community input, where anyone and everyone interested is involved early and throughout the process. Residents, *Fire Safe Councils*,[5] homeowner's associations, and various other community organizations work together with firefighters, elected officials, public land managers, and other government agency representatives to create a document that reflects their collective experience. Collaborative decision-making is the backbone of a CWPP.

1 Collaborative: The open, inclusive process that assumes all participants have valuable knowledge and opinion, and that all of their comments were heard and considered. Collaboration does not mean consensus or ownership. The CWPP could later be approved by a body with some controversy and/or disagreement.
2 *www.fs.fed.us/projects/hfi/background.shtml*
3 Structural Ignitability: The ease with which a home or other structure ignites.
4 Hazardous Fuels: All burnable materials including but not limited to living or dead vegetation, structures, and chemicals that feed a fire.
5 Fire Safe Council: Public and private organizations that work together to minimize the potential for wildfire damage to communities and homeowners, while also protecting the health of natural resources. Goals are achieved by distributing fire prevention materials, organizing fire safety programs, implementing fuel-reduction projects, and more. www.firesafecouncil.org.

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HFRA CWPP Requirements

Collaboration

A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.

Prioritized Fuel Reduction

A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.

Treatment of Structural Ignitability

A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

SOURCE: *www.stateforesters.org/node/792*

Effective CWPPs are those where local residents are inspired and empowered to take responsibility for preparing their neighborhoods and communities for the eventuality of wildfire, in partnership and with the support of public and private entities.

How Can a CWPP Help the Communities of the Angeles Forest?

CWPPs provide communities an opportunity to work together to identify actions to *"fire safe"*[6] their communities against the eventuality of wildfire. The resulting document is a tool they can use in their ongoing efforts to coexist with wildfire.

CWPPs are not regulatory documents. Rather, they demonstrate community agreement regarding broad goals as well as a series of specific actions to pursue. In this way they can be flexible, living documents, much like a business or strategic plan. Although there are accepted standards for what to include, there are no hard rules regarding what must be detailed in a CWPP. The broad guidelines put forth by the HFRA (see HFRA CWPP Requirements above) allow communities latitude to develop a plan that meets local needs. Hence, CWPPs can be customized to reflect the character of the community and region for which they are being created.

An effective CWPP will recognize and address the many levels of land-use planning that go into community making. Throughout California, as people build homes, businesses, and public places, there are many local, state, and federal requirements designed to address fire, public safety, community design, and environmental safeguards. A far-reaching CWPP can recognize these requirements and incorporate their positive benefits into its recommended actions. An example of this might be a community's heritage tree ordinance—a valuable tool enabling the community to protect desirable trees. By incorporating this land-use requirement into the CWPP, a community can make choices about how to accomplish fire-safe goals that don't come at the expense of valuable trees.

As we explore ways to increase the benefits of CWPPs, one early achievement is the use of CWPPs to influence homeowner fire safety in existing neighborhoods. The creation of new fire-safe homes and developments is already addressed in Los Angeles County through local and state planning and codes. Thus, a CWPP can promote consistent public education and policy development for any new or existing jurisdiction within the *wildland-urban interface*.[7]

6 Fire Safe: The act of preparing something—a home, neighborhood, or community—to survive a wildfire or improve its chances for survival; the ability of an object to survive fire.

7 Wildland-Urban Interface (WUI): The area where wildlands and communities converge, generally assumed in southern California to be at high risk of wildfire.

Comprehensive CWPPs can also be an effective community education tool. They can contain a wealth of information on topics such as *fire behavior,*[8] *fire ecology,*[9] *defensible space,*[10] and *fire protection,*[11] all in one easily accessible place. This can be an invaluable resource for Fire Safe Councils and other community-based organizations working to improve local fire safety. Both the CWPP process and the final plan are a great educational resource for homeowners wanting to understand local wildfire threats and improve their own fire safety and defensible space.

Fire departments, Fire Safe Councils, and others interested in reducing wildfire risks can use CWPPs to identify high-hazard and risk areas to implement fuel reduction and other projects. This information helps firefighters to develop *pre-fire plans*[12] based on local knowledge from CWPP participants. This citizen input frequently leads to community acceptance of projects, thus easing their implementation.

Building agreement around how to address complex wildfire issues is a long-term, fundamental benefit to communities. Having a plan in place that the entire community can embrace, while concurrently educating residents interested in being proactive in the face of wildfire, is the most effective long-term strategy for living with wildfire.

Who's Already Involved in Community Fire Planning around the Angeles National Forest?

Los Angeles County already addresses some aspects of fire-safe planning through its County Fire Plan, building and fire codes, hazardous fuel reduction requirements, and other wildfire-oriented regulations and practices. As stated above, these are mostly targeted at new development. Some cities in the foothills region follow similar practices, while others are just developing their regulations.

A few communities around the Angeles National Forest already have a CWPP in process or completed. They are:

- Big Santa Anita Canyon (*Draft*)
- City of La Verne (*Draft*)
- City of Monrovia (*In process*)
- Mount Pinos (*Mostly for Los Padres National Forest*)
- Wrightwood (*Including San Bernardino National Forest*)

What's in a CWPP? The Santa Monica Mountains CWPP Example

To better understand CWPPs, we can look at an example of a current and nearby regional **CWPP: the Santa Monica Mountains Community Wildfire Protection Plan**[13] (SMM CWPP). Like any wildfire prevention plan that would be developed for the communities around the Angeles National Forest, the SMM CWPP crosses several jurisdictions and includes a plethora of landowners and managers.

8 Fire Behavior: The combination of fire spread, heat output, flame length, intensity, etc., as a fire responds to weather, topography, types of fuels, etc.

9 Fire Ecology: The study of fire and its relationship to the physical, chemical, and biological components of an ecosystem.

10 Defensible Space: An area around a home or structure that has been cleared of flammable materials to act as a barrier between wildfires and property, thereby decreasing the risk of damage or loss. This space is currently defined as 100 feet around a structure in California.

11 Fire protection is the study and practice of mitigating the unwanted effects of fires. It involves the study of the behavior, suppression, and investigation of fire and its related emergencies, as well as the research and development, production, testing, and application of mitigating systems.

12 Pre-fire Plan: A plan to address fire issues before ignition, including fire prevention actions such as hazardous fuel reduction. Occasionally these plans may extend into the suppression phase of fire protection and detail such items as evacuation routes, fuelbreaks, and firefighting strategies.

13 The Santa Monica Mountains CWPP was written in 2010 by ForEverGreen Forestry (FGF). FGF writes CWPPs to be used as a resource for residents and stakeholder organizations—especially Fire Safe Councils. Therefore, these plans contain abundant background information to assist residents and communities in implementing them, including Best Management Practices to make homes and neighborhoods fire safe.

For a complete version of the Santa Monica Mountains CWPP, please visit: www.forevergreenforestry.com/SantaMonicaMountainsCWPP.html.

The following outline summarizes the chapters and related documents as organized in the SMM CWPP. Each chapter is introduced with its purpose and intended audience, with content explained, including some of the questions considered in creating the text. The SMM CWPP outline has been slightly modified here to make it a more useful template for an eventual CWPP for the area in and around the Angeles National Forest.

TEMPLATE PART I: CWPP Chapters

The SMM CWPP is divided into four general parts: I-Chapters; II-Community Fire Safety Action Plans; III-Appendices; and IV-References, all preceded by an Executive Summary.

EXECUTIVE SUMMARY

Purpose

This stand-alone document provides a summary and overview of the entire CWPP. It is comparable to shorter, less complex CWPPs. It summarizes the wildfire issues in the Planning Area, the collaborative process, and the proposed actions.

Audience

The Executive Summary is written for those unlikely to read the entire CWPP, whether local residents or state and federal decision-makers. It provides a synopsis of the salient points detailed in the longer document, with conclusions and recommended actions.

CHAPTER 1: INTRODUCTION TO THE COMMUNITY WILDFIRE PROTECTION PLAN

Purpose

As the introduction to the CWPP, Chapter 1 is used to connect the reader with the Planning Area (the area the CWPP covers), setting the stage for what is covered in the rest of the CWPP. It explains the purposes and objectives of the plan as well as pertinent local issues, including overall land ownership and a brief introduction to some key players, especially Fire Safe Councils, land management agencies, and fire protection agencies.

Audience

This chapter is written for two audiences. First, it provides residents with a summary of local wildfire issues, describing the backdrop or framework for the CWPP. Second, it offers background for people unfamiliar with the Planning Area, including government decision-makers and others from state and federal agencies.

Outline

1. Introduction to the Community Wildfire Protection Plan

1.1. Plan Purpose

The purpose of the CWPP is clearly laid out as a set of bullets, explaining the goals in creating the CWPP and expected outcomes. The purpose needs to be agreed upon by the Planning Committee early in the process *(see Chapter 2 – Process)*.

1.2. Organization of This Document

A listing of all of the chapters, appendices, references, etc., allowing the reader to understand how and where to find information within the plan.

1.3. Community Description

This general introduction to the Planning Area is written mainly for readers who are not familiar with the local area. These include state and federal government agency personnel who may be reviewing the plan in the context of providing grants to implement the identified projects. This section also includes a list of local land management agencies and a table showing the various land ownerships in the Planning Area.

1.4. Communities at Risk

"Communities at Risk" or "At-Risk Community" is a federal designation from the National Fire Plan. This section offers an introduction and listing of the existing, designated Communities at Risk,[14] as found on the California Fire Alliance website: *www.cafirealliance.org/communities_at_risk*. Part of the CWPP process includes identifying additional qualified communities at risk who want this designation, and initiating the process of having them officially recognized. (Proposed Communities at Risk, if any, are included in the Action Plan, Chapter 8 in this example.)

1.5. Fire Protection Areas and Agencies

This brief introduction to the various fire-fighting organizations within the Planning Area includes local, state, and federal government agencies, as well as volunteer fire departments and any other organization providing fire protection services to area residents and wildlands.

For the communities around the Angeles National Forest, this list includes:

- Angeles National Forest
- City of Glendale
- City of LaVerne
- City of Los Angeles
- City of Monrovia
- City of Pasadena
- City of Sierra Madre
- Los Angeles County
- San Bernardino County

1.6. Local Fire Safe Councils

This is a brief introduction to the Fire Safe Councils (FSCs) in the area. An FSC is a local citizen-led public-private effort to prepare communities for wildfire. A listing of known FSCs is available at: *www.firesafecouncil.org/find/index.cfm*. This website also provides more information about FSCs in general and how they benefit residents.

For the communities around the Angeles National Forest, existing FSCs include:

- Angeles Forest Valleys and Lakes FSC
- Big Santa Anita Canyon FSC
- Chaney-Millard FSC
- Cresenta Valley FSC
- La Vina FSC
- Meadows FSC
- Monrovia FSC
- Mount Baldy FSC
- Mount Wilson FSC
- Mount Pinos Community FSC
- Pickens Canyon FSC
- Sand Canyon FSC
- Sierra Madre FSC
- Wrightwood FSC

14 For a definition of Communities at Risk and how they are implemented in California, please see: *www.cafirealliance.org/communities_at_risk/*

Potential FSCs, or groups already doing community-based FSC-type work, include:

- Bradbury
- Duarte
- Juniper Hills
- La Verne

1.7. Fire Safety Objectives

These are the overall objectives for this plan. The question to be asked is: when the plan is completed and has been fully (or significantly) implemented, how will wildfire behavior in this community change? Objectives could include:

- Minimize *ignitions*[15]
- Decrease *fire intensity*[16] and *fire severity*[17] around homes and structures
- Decrease damage to natural and human assets (including decreasing structural ignitability)
- Increase *permeability*[18]
- Increase *resiliency*[19]

1.8. Conservation Principles for Community Wildfire Protection

The "Conservation Principles" were originally developed in 2007 by a Steering Committee of California agency, conservation, and scientific fire experts for the Sierra Nevada region. They have since been modified to apply to specific areas around the state. They are intended as a guide for residents desiring to create a fire-safe home environment that protects and conserves native *ecosystems.*[20]

1. Remember the Vegetation
   a. Observe and monitor your vegetation's dynamic changes.
   b. Act conservatively.
   c. Protect native species that share your home.
   d. Keep the oldest and biggest native trees.
2. Remember the Wildlife
   a. Provide local wildlife a place to live.
   b. Provide access to food and water.
   c. Protect future generations of wildlife.
   d. Value the standing dead trees.
   e. Conserve threatened and endangered species.
3. Remember the Soil
   a. Maintain the life in your soil.
   b. Ensure that soil cover is fire safe.
   c. Minimize *erosion.*[21]
   d. Protect your soil after a fire.

15 Ignitions: The event of combustion initiation that creates fire.
16 Fire Intensity: A measurement of the heat released in an area during a specific amount of time (BTU/ft/sec). Fire intensity has a large influence on an ecosystem's recovery from fire.
17 Fire Severity: A qualitative indicator of the effects of fire on an ecosystem. Fire severity reflects the amount of heat released by a fire, and therefore it is also dependent on fuels and fire behavior.
18 Permeability: In this case, a condition whereby fire can spread through a community with minimal negative impact.
19 Resilient/Resiliency: The ability of an ecosystem to return to its balanced state after a disturbance.
20 Ecosystem: A community of organisms (including plants, animals, fungi, and the non-living aspects of the physical environment) that makes up a specific area. Examples of ecosystem types include a pond or a forest.
21 Erosion: The removal of soil over time by weather, wind and/or water, such as rain or water runoff from roads.

4. Remember the People
    a. Plan your actions with your neighbors.
    b. Find experienced workers and treat them well.
    c. Work with your local fire department.

For more information on the Conservation Principles, see SMM CWPP Chapter 1.[22]

CHAPTER 2: CWPP PLANNING PROCESS

Purpose

This chapter describes the collaborative processes used for the CWPP to ensure that it adequately and accurately reflects the needs and desires of local residents. The most effective CWPPs—the ones that become living documents directing community efforts—are those that have an extensive democratic process up front. There is a risk that a CWPP can become just another unutilized planning document that sits on a shelf. Spending the time to develop an inclusive, extensive community process is the best insurance against creating a "shelf document." A deliberate process has the greatest chance of creating a tool for local residents to positively affect their relationship with wildfire, and be useful for a long time to come.

Audience

This chapter is written for local residents as well as local, state, and federal decision-makers.

Outline

2. CWPP Planning Process

2.1. Planning Area Boundaries

One of the first steps in creating a CWPP is to decide what area the plan will cover, also known as the "Planning Area." CWPPs can be written for any geographical area that makes sense to its authors, whether a community, *watershed,*[23] county, or region. Once the Planning Area is determined, it is divided into smaller "planning units," which are generally based on access, topography, neighborhoods, and watersheds, as well as what makes practical sense to the Planning Committee and Working Group *(see below)*. Access is a critical factor here, as evacuation is a fundamental issue uniting a neighborhood or community during wildfire. Another dynamic to consider in creating planning units is how many different areas can be reasonably studied. In addition, as will be seen below, each planning unit requires at least one public meeting in the area so residents can focus on its unique wildfire risks and needs for protection.

2.2. Process and Plan Development

2.2.1. Community Meetings

Once the Planning Area and planning units have been delineated, the next step is to get out into the community and start talking with residents. A structure and process have been developed for successful community meetings. The purpose and outcomes of the meetings are as follows:

22 *www.forevergreenforestry.com/SantaMonicaMountainsCWPP.html*

23 Watershed: All of the land that drains water runoff into a specific body of water. Watersheds may be referred to as drainage areas or drainage basins. Ridges of higher elevation usually form the boundaries between watersheds by directing the water to one side of the ridge or the other. The water then flows to the low point of the watershed.

Purpose:

- Educate residents regarding fire safety, fire protection, the *home ignition zone,*[24] and the Community Wildfire Protection Plan.
- Solicit information and participation from residents to effectively implement the CWPP.

Outcomes:

- Basic understanding of fire safety and the home ignition zone to allow residents to implement recommended actions on their property and throughout their community.
- Broad-based participation in local Fire Safe Councils and the CWPP.
- Opportunity to provide direct input into priorities for community fire safety in the Planning Area.
- Identify local concerns and priorities on maps to prioritize projects for National Fire Plan and other funding sources.

Community meetings are where the designation of planning units is most important. At least one meeting must be held in each unit, preferably in a local gathering place, be it a community center, church, public building, or living room. Organizing each meeting to address only one planning unit is fundamental to the success of the mapping process identified below.

A CWPP is an excellent vehicle for educating residents about fire safety and empowering them to take responsibility for this in their neighborhoods and communities. Therefore, the first part of the meeting is dedicated to sharing the latest science and *Best Management Practices*[25] regarding the local fire environment and how to implement defensible space and to *harden homes*[26] within the home ignition zone. For a sample agenda, please see *Addendum 1: Community Meeting Sample Agenda.*

2.2.2. Community Mapping Exercise

The heart of the CWPP process is the community mapping exercise. This is fundamentally a simple form of a local *risk assessment*[27] *(see Chapter 7: Risk Assessment below).* A set of large-format maps is printed (approximately 3'x4' each, depending on the planning unit shape), clearly showing local roads, streams, and landmarks—all named (where possible) on a relatively current, color aerial photo. Residents (ideally in groups of 6-10 people) are then asked to draw on the maps a set of local factors: *values at risk,*[28] *wildfire risks*[29] *and hazards,*[30] completed *fuel-reduction*[31] projects, and fire protection resources.

This identification of current wildfire issues is followed by a brainstorming session in which participants suggest projects that can be carried out locally to address identified risks and hazards. The initial project brainstorming is wide open, which allows participants to conceptualize a broad range of suggested projects and activities. Participants are told to "imagine you are king or queen for a day and you could do anything you want to reduce the local risk of wildfire, regardless of the cost, ownership, or feasibility." This process encourages everyone to participate and be heard, no matter what ideas they might propose.

24 Home Ignition Zone: The home and the area out to approximately 100 feet, where local conditions affect the potential ignitability of a home during a wildfire.
25 Best Management Practices (BMPs): Fire safety activities that reduce wildfire risk while limiting potential negative environmental impacts. BMPs can range from reducing impacts to specific wildlife species, to maintaining or enhancing ecosystem functions and processes.
26 Hardening/harden homes: Improving a building's resistance to fire, such as upgrading a roof with noncombustible roofing material; the goal is to make the structure survivable in fire.
27 Risk Assessment: The process of identifying and evaluating assets at risk.
28 The California Fire Plan calls these "assets" at risk. Others may call them "values" at risk. They are usually synonymous.
29 Wildfire/Fire Risk: The combination of vegetation, topography, weather, ignition sources, and fire history that leads to the probability that something will ignite and/or burn.
30 Fire Hazard: The amount, condition, and structure of fuels that will burn if a fire enters an area.
31 Fuel-Reduction/Treatment: The act of removing burnable materials to lower the risk of fires igniting and to lessen the likelihood of damage to property and communities. Treatments may include creating a defensible space, developing fuelbreaks, initiating prescribed burns, and thinning vegetation.

Following the project identification, a simple prioritization exercise occurs to identify the top-priority projects. The total number of identified projects (n) is divided by 3 to determine the total number of votes per participant (via sticky dots placed on flip charts). This prioritization is when participants are asked to put on their "reality filter" and identify projects that need to happen first, along with projects that can be implemented with existing or few resources, or are otherwise compelling community priorities.

This mapping exercise has been carried out in hundreds of communities in California and Oregon. The response has been overwhelmingly positive. Participants leave the meetings feeling heard and are empowered to become active participants in making their community safe from wildfire. This is likely one of the most important outcomes of the CWPP process, as an informed and engaged community is a key step toward being a prepared community. The results of this simple process reflect local knowledge of a place. This participative process allows the identification of creative, experiential, and place-based ideas about how to address wildfire issues. This information then becomes the foundation of the CWPP. For more information, see *Addendum 2: Community Meeting Mapping Exercise.*

2.2.3. Community Outreach

For the public meetings to be successful, an intensive community outreach process must be undertaken to get as diverse of a group of residents to participate as possible. As stated above, it is important to have a separate meeting for each planning unit. Therefore, up-front planning is required to identify all meeting places, and to make an effort to schedule meetings so they do not conflict with other local events. A minimum of three weeks' notice is essential; ideally planning unit meetings should be announced a month or more in advance to ensure good attendance. It is important to recognize that everyone's schedule is full, especially those of community leaders who may bring others to the process. Sometimes despite extensive outreach only a small number of residents attend a planning unit meeting. This is not necessarily a reason for concern. The collaborative planning process detailed above works with any number of participants, and the small group of attendees at the initial meeting will each likely play an instrumental role in the planning process.

There are several avenues for getting a message out to local residents, including: local newspapers (especially community calendars), other local media (radio and TV), posters and flyers, email lists, phone trees, and social media tools such as Facebook, Twitter, and websites. If a meeting organizer can identify the local "movers and shakers" and engage them early in the meeting planning process, there is a good chance that the announcement will spread through word of mouth. One way to do this is have local hosts for planning unit meetings (who can be associated with the meeting place); they can help spread the word to neighbors and members of their local community.

2.2.4. Public Review and Input

The community meeting process provides a base of information about each planning unit and what the community identifies as priority actions. For small CWPPs, a community can write the plan themselves, and may not require public review. Several guidelines and templates are available for how to do this. This CWPP is based generally on the *Sierra Nevada Community Conservation and Wildfire Protection Plan Guidebook*;[32] that guide goes into greater detail, demonstrating how to develop each component of a CWPP.

For a larger, regional CWPP—as is proposed for the communities surrounding the Angeles National Forest—a team of CWPP specialists comes together to lead this process and write the plan. The team reviews the information gathered at the meetings and combines it with the best available data and science, gathered in cooperation with *stakeholder agencies.*[33] An Internal Draft CWPP is then produced for initial community and stakeholder review.

32 *www.forevergreenforestry.com/SierraConservationCWPP.html*

33 Stakeholder agencies in this case would include the Angeles National Forest, Los Angeles County Fire Department, local fire departments, local Fire Safe Councils, local governments, and other interested local, state, and federal agencies and organizations.

Community Review Committee and Stakeholder Reviewers

At the community meetings, participants are invited to become part of the "Community Review Committee." This is a voluntary committee composed of interested residents who want to review early versions of the CWPP. This is a Web-based, virtual process, meaning that participants go to a website to download documents they want to review, make their edits and comments in an MS Word document, and then email the document back for consideration. This same process is extended to Stakeholder reviewers (those agencies and organizations that work in the Planning Area and want to contribute to the CWPP).

Public Draft

Following the collection and incorporation of input from the Community Review Committee and stakeholders, a public draft is created to be circulated to anyone who would like to read it. It is made available online as well as on CD, and a number of printed copies can be reviewed at local meeting places, such as fire stations, libraries, and the like. At the beginning of the public review process, a series of meetings is held to introduce and explain the CWPP. The public is given approximately one month to review the document and make comments. The comments are then evaluated for incorporation into the final CWPP.

2.2.5. Final CWPP and Signers

The Healthy Forests Restoration Act states that three entities must sign a CWPP for it to be valid: 1) local government(s) for all areas included in the plan (e.g. city councils, county board of supervisors, or their representative); 2) local fire department(s) (e.g. in the case of the Angeles National Forest region, both Los Angeles County Fire Dept. and the local fire departments in the Planning Area); and 3) the state forestry department. Los Angeles County is a "contract county," meaning that the California Department of Forestry and Fire Protection (CAL FIRE) contracts with the Los Angeles County Fire Department to serve in the role that CAL FIRE does in other parts of the state.

In addition to this list of "required" signatories, experience has shown that any and all organizations contributing to the CWPP should be allowed to sign as supporting the CWPP. These participating signatories are included on additional pages, following the official signature page. The supporting signatories page states "The following stakeholders support this CWPP." This is evidence of the extent of community participation and collaboration, as well as the larger "buy-in" from all participating entities.

2.3. CWPP Planning Committee and Working Group

To ensure that the resulting CWPP has a large group of participating signatory agencies and organizations, the process needs to be inclusive from the start. It's vital to embrace the "big tent" philosophy when organizing a CWPP.

In addition to bringing the required signatories to the table at the outset,[34] it is essential that public land managers, Fire Safe Councils, homeowner's associations, environmental organizations, resource managers, and other interested stakeholders be invited to participate.

Therefore, the first step in creating a CWPP is to identify a Planning Committee and a Working Group. The Planning Committee oversees the process and makes needed decisions along the way. The signatories (local government and fire departments) must be represented, as well as any large public land managers (e.g. the Angeles National Forest) and members of one or more local Fire Safe Councils, and any other key players or community leaders, including local tribes. Planning Committee members tend to be the leaders or key decision-makers in the above-mentioned groups. To be effective, it is best to keep the Planning Committee to less than ten people.

34 As communities are instructed to do in the CWPP Handbook, *www.stateforesters.org/node/792*.

The people involved in the day-to-day details of creating the CWPP (organizing and undertaking the meetings, writing, incorporating comments, map-making, developing educational materials, outreach etc.) are members of the Working Group. These individuals tend to be staff of the same organizations represented by the Planning Committee. Anyone who wants to constructively participate in the process can be added to the Working Group. One of the first jobs of the Working Group is to identify the planning units, with approval by the Planning Committee, so the community meeting process can begin.

CHAPTER 3: WILDFIRE CURRENT ENVIRONMENT AND BEHAVIOR

Purpose

This chapter discusses the factors influencing wildfire occurrence and behavior, and the basic concepts of fire prevention. The goal is to educate and prepare residents living in and around the Angeles National Forest to act to reduce wildfire hazards and risks, and to create safer neighborhoods in the event of wildfire. It also includes data useful for state and federal-level policy makers comparing wildfire issues between and among communities and regions.

Audience

This chapter is written primarily for local residents and decision-makers, as well as interested state and federal policy makers.

Outline

3. Wildfire: Current Environment and Behavior

This chapter begins by summarizing why wildfire is a problem in the Planning Area. It could also be considered the problem statement for the entire CWPP.

3.1. Fire History

This study of the local fire history provides background information about why wildfires burn in this area, when they generally happen, and how they start.

3.1.1. Lightning Fires and Pre-Historic Fire History

Some fires start naturally, i.e., not from people. What did "natural" fire look like in the Planning Area before humans played a significant role? Understanding natural fire dynamics helps with comprehending current wildfire issues.

3.1.2. Indigenous Use of Fire

Generally, native Californians used fire extensively as a tool. Except in remote wilderness areas, the "natural" landscape we know today was actually a managed landscape. Native cultures used fire to manage their home territory for food, fuel, and safety. An understanding of that management history and how it has changed helps us understand our current vegetation and *fuel levels*.[35]

3.1.3. European Settlement Fire History

When European settlers came to California, they forcibly stopped indigenous burning in many areas, while simultaneously undertaking their own style of large-scale burning to clear lands for pasture and development. This important background information helps us understand current vegetation conditions (e.g. non-native varieties brought in with European-style herding), and how and why it burns the way it does.

35 Fuel Levels: Amount of all burnable materials including but not limited to living or dead vegetation, structures, and chemicals that feed a fire.

3.1.4. Recent Fire History

The recent fire history—the last 50 years or so—illustrates another change in how fire has been used to manage the landscape. In this period, fire suppression (a.k.a. fire protection or fire fighting) became a dominant management paradigm. At the same time, hundreds of thousands of people moved into once-open areas, bringing many additional and now common causes for fire ignitions, both intentional and accidental.

3.2. Fire Behavior Characteristics

Understanding the science of how and why fire burns helps to reduce wildfire damage. This section is written as a primer for residents—especially for Fire Safe Council members and other community leaders who want to better understand fire to improve the effectiveness of their actions. The characteristics discussed are:

- *Surface Fire*[36]
- *Crown Fire*[37]
- Spot Fire
- Fire Intensity
- *Heat Per Unit Area*[38]
- Fire Severity
- *Flame Length*[39]
- *Rate of Spread*[40]
- *Residence Time*[41]

3.3. General Wildfire Environment Descriptions

Environmental factors affect fire behavior, as well as prime the environment for wildfire and influence fire's consequences on the landscape and inhabitants. These include the following:

- Weather
- Topography
- Vegetation and Fuels
- *Hydrology*[42]
- Wildlife, including *Sensitive Species*[43]

3.4. Fire Hazard

Fire hazard generally refers to the quantity and type of fuels, meaning anything that can burn once ignited. An understanding of the hazards in the Planning Area enables the prioritization of fuel-reduction efforts.

36 Surface Fire: A fire that consumes only surface debris and smaller plants.
37 Crown Fire: A fire that spreads through the top of the vegetative canopy and is characteristic of hot fires and dry conditions. Crown fires are generally more complex to control than surface fires.
38 Heat Per Unit Area: The amount of heat produced by burning fuels in a given unit area through the entire duration of a fire.
39 Flame Length: The span of the flame from the tip to the base, irrespective of tilt.
40 Rate of Spread: The speed of an advancing fire. May be measured by the growth in area or by the speed of the leading edge of the fire.
41 Residence Time: How long the flaming front burns in any one location.
42 Hydrology: The science that describes the waters of the Earth, including movement, distribution, seasonal patterns, and conservation.
43 Sensitive Species: A plant or animal species that can tolerate a small range of resources and environmental situations, or habitat. These species raise concerns about population numbers and may be recognized locally as rare, or listed as Threatened or Endangered by the state or federal Endangered Species Act.

3.4.1. Hazard Assessment

A variety of methods are used to assess fuel hazard. In California, the state uses Fire Hazard Severity Zones.[44] All of the communities surrounding the Angeles National Forest are at least partly classified as Very High Fire Hazard Severity Zone by CAL FIRE. (There are also Moderate and High Fire Hazard Severity classifications here.) This designation gives a relative value of hazard, which in this case describes local communities as having the highest level of potential for homes to be exposed to wildfire, either though flames or *embers.*[45] This designation system triggers building and fire code requirements, as well as fire-planning requirements in land-use planning. It is also used increasingly to denote hazard by other agencies. Visit *http://www.fire.ca.gov/fire_prevention/fhsz_maps/fhsz_maps_losangeles.php* to see maps of these designations in Los Angeles County.

3.5. Fire Regime and Condition Class

Fire Regime[46] and *Condition Class*[47] are a national-level classification system to identify how far off "natural" fire patterns are in a given area, and what that means to local ecosystem health. There is debate as to the applicability of these concepts in southern California. However, this is included in the CWPP as it is often required information for applicants when seeking federal grants to support local fire safety efforts.

3.6. Fire Threat

Fire threat is a statewide analysis undertaken at the landscape level to characterize potential damage from wildfire to key ecological components. It is a function of potential fire behavior and expected fire frequency, based on fire regime and condition class.

3.7. Wildfire and the Wildland-Urban Interface

This section summarizes the key issues surrounding wildfire in the Planning Area, particularly the need for action in the growing wildland-urban interface (WUI), where people and *wildlands*[48] come together and where wildfire tends to have the greatest financial, and often environmental, impacts.

CHAPTER 4: COMMUNITY FIRE SAFETY STARTS AT HOME

Purpose

The purpose of this chapter is to educate and empower residents to make their homes, neighborhoods, and communities fire safe, with the goal of greatly improving their chances of surviving the next wildfire.

Audience

This chapter is written for local residents.

Outline

4. Community Fire Safety Starts at Home

4.1. From the House Out

In southern California especially, science is confirming that to get the "biggest bang for the buck" it's necessary to focus fire-safety efforts immediately adjacent to and including homes. This is called the "house out" strategy, and it is used to guide the fire-safety educational efforts associated with these CWPPs.

44 *www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones.php*
45 Embers: Small glowing or smoldering pieces of wood or other organic debris often dispersed ahead of a fire (also known as firebrands).
46 Fire Regime: The characteristic patterns of fire in a given ecosystem. May include fire behavior, distribution, frequency, size, and season.
47 Condition Class: A landscape designation based on a relative measure describing the degree of departure (low, moderate, or high) from the historical natural fire regime (see note above).
48 Wildlands: An area of land that is uncultivated and relatively free of human interference. Plants and animals exist in a natural state, thus wildlands help to maintain biodiversity and to preserve other natural values.

The Home Ignition Zone

The "home ignition zone" is a term coined by fire scientist Dr. Jack Cohen to generally refer to the area approximately 100[49] feet out from a house.[50] Dr. Cohen's and the research of others shows that embers rather than direct contact with flames are what usually cause a house to ignite during a wildfire. The reduction of potentially combustible fuels in the home ignition zone is the most effective strategy to reduce these ember ignitions.

4.1.1. Hardened Homes

Making our homes less vulnerable to wildfire means building or retrofitting them to withstand both the potentially long exposure to embers and relatively quick exposure to the flaming front. Research on past wildfires shows conclusively that investing in hardening homes before a fire arrives drastically reduces the chances of homes burning down during a wildfire. It is also a critical strategy to reduce structure loss from *home-to-home ignitions.*[51]

4.1.2. Fire-Free Zone

A set of four zones helps guide fire-safe practices around homes and other structures. For each zone identified below, a set of best management practices is included in the CWPP.

The first, the Fire-Free Zone, includes the home itself and extends 5 feet out from the structure. This is the area where nothing flammable should permanently exist. Doormats, hanging plants, and a few other flammable items can live here, as long as they are removed when the threat of wildfire is imminent.

4.1.3. Structure Protection Zone

The Structure Protection Zone extends 30 feet out from the house and is what CAL FIRE historically called the "lean and green zone." Vegetation and other fuels should be healthy, well separated, and free of any dead matter. Grass must be kept below 3 inches.

Urban Fuels

The concept of *urban fuels*[52] is a useful one in southern California, referring to the "stuff" brought into the native landscape that starts fires or is quickest to ignite during a wildfire. This includes homes, ornamental vegetation, patio furniture, kids' toys, firewood, junk piles, etc. It's imperative to reduce and separate urban fuels in this 30-foot zone.

4.1.4. Defensible Space Zone

The Defensible Space Zone extends out to approximately 100 feet and is similar to the home ignition zone described above. This is where fuels are separated to prevent a fire spreading from this outer perimeter area in toward homes or vice versa, or to neighboring structures.

4.1.5. Wildland Interface Zone

For larger properties, this last zone extends out to 200 feet or more. This is the area where ecosystem restoration and fire-hazard reduction efforts join to create *fire-resilient landscapes*[53] surrounding homes and neighborhoods.

49 Sometimes up to 200 feet, but generally not in southern California.
50 *www.firewise.org/resources/files/WUI_HIR/Wildlandurbanfire-approach.pdf*
51 Home-to-Home Ignitions: The action of one home igniting adjacent homes.
52 Urban Fuels: Any flammable materials within a landscape as a result of urban development. Examples include urban structures, landscaping, and urban debris such as wood piles, trash dumps along roadsides, and die-back from weedy invaders.
53 Fire-Resilient Landscape: A natural landscape featuring plants that are adapted to local wildfire conditions, or a domestic outdoor space where appropriate actions have been taken to make it less vulnerable to wildfire and certainly less prone to causing one.

4.2. Ready, Set, Go

"Ready, Set, Go!" is the community wildfire preparedness strategy promoted by the Los Angeles County Fire Department and others throughout the region.

For more information on Ready, Set, Go! see: *www.fire.lacounty.gov/safetypreparedness/ReadySetGo/pdf/Ready Set Go 09.pdf,* and *www.iafc.org/displaycommon.cfm?an=1&subarticlenbr=1229*.

4.2.1. READY: What to Do Before Wildfire

There are many actions residents can take long before a fire approaches to ensure that homes and neighborhoods are prepared to withstand wildfire. A prime consideration is making it easier for firefighters to safely do their job defending homes and other structures. The goal is for local residents to be an asset to aid in firefighting efforts, rather than a potential liability. The issues addressed in this section are organized around the following headings.

Help Firefighters Help You

Residents should ensure that their defensible space is completed well before fire season, they know their main and alternate evacuation routes, and firefighters can safely get to and away from their house to defend it, should that time come.

Water Storage and Supply

Increasing water supply through storage and conservation can help firefighters defend homes when wildfire strikes.

Roads and Access

Ensuring that roads are easily passable, so residents can safely evacuate while fire engines arrive, is key to wildfire survival.

Signage and Addressing

When large wildfires erupt, firefighters can arrive from all over the nation. It is important that homes and streets are easily identifiable. This can be a matter of life and death during medical emergencies.

Emergency Preparedness

Residents should prepare valuables for evacuation. Ensure that insurance coverage is updated and accurate property documentation available in case the home is damaged.

4.2.2. SET: What to Do When Wildfire Potential is High—Red Flag Warnings

This section describes what to do when the threat of wildfire is high, including family emergency plans, and the concept of Red Flag Warnings. In addition to information regarding how to participate in mass notification "call-back" systems, it includes activities such as monitoring local news, and what possible local restrictions may be in place, such as no on-street parking.

4.2.3. GO: What to Do During Wildfire—Evacuating Safely

This section explains what to do when fire is approaching to ensure the safety and survival of residents. It includes information on evacuating vulnerable human populations (e.g. schools, nursing homes, handicapped or elderly people residing in their homes), as well as pets and domestic livestock. This section is written in with the appropriate fire and law enforcement agencies that manage evacuations in the Planning Area.

4.3. After the Fire

Many residents in the communities surrounding the Angeles National Forest have been through at least one wildfire, some with severe damage. This section discusses what actions residents can take to help their property recover and how to be better prepared for the next fire.

4.3.1. Assess Your Situation

This section includes steps to take to evaluate the effects of the wildfire on one's own property.

4.3.2. Developing and Implementing a Restoration Plan

These steps are suggested for people wanting to address environmental restoration of their property.

4.3.3. Make a Plan to Be Better Prepared Next Time

This section includes suggestions for how to rebuild one's home and life should they experience wildfire damage.

4.4. Legal Requirements

Given the increasing impact of wildfire in southern California and throughout the state, many laws and regulations have been put in place to attempt to minimize future negative impacts. Awareness of these legal requirements can aid fire-safety preparations and actions. It is included in the CWPP for residents to understand their legal obligations related to wildfire preparedness.

4.4.1. California State Laws and Regulations

There are several state regulations related to community fire safety. This section contains the most relevant ones. This information is also summarized in the Santa Monica Mountains CWPP and can be used as reference for other areas in Los Angeles County. Please see *Addendum 3, Relevant Planning Documents for CWPPs in and Around the Angeles National Forest*, for more information.

4.4.2. Local and County Regulations

Los Angeles County and other local jurisdictions have their own set of fire-safe regulations that must equal or exceed those of the state. There are also local regulations, such as the permits required in Los Angeles County for most pruning of native oak trees, and for any proposed removal of them. Please see *Addendum 3, Relevant Planning Documents for CWPPs in and Around the Angeles National Forest*, for more information.

CHAPTER 5: FIRE ECOLOGY AND MANAGEMENT

Purpose

This chapter details the fire ecology specific to each of the dominant vegetation types in the Planning Area. It discusses the role of fire in shaping the assemblage of plants, the historical and current nature of the fire regime, and the common vegetative adaptations to fire. These features are then considered in the development of best management practices that will a) be most effective in reducing ignition of homes and other structures; b) facilitate access and improve safety for fire-suppression personnel; and c) promote the Conservation Principles identified in Chapter 1.

Audience

This chapter is written for residents and land managers who want to actively manage native vegetation in an ecologically appropriate way to reduce fuel hazards and avoid harm to the environment (perhaps even enhancing it).

Outline

This chapter's organization is based on the native, local vegetation types. For the communities around the Angeles National Forest, the native vegetation types are:

- Coastal Sage Scrub
- Chaparral
- Valley and Foothill Woodland
- Riparian Woodland
- Montane Forest
- Pinyon-Juniper Woodland
- Joshua Tree Woodland

5. Fire Ecology and Management

Each vegetation type is introduced using a parallel outline. We use "chaparral" here as an example.

5.1. Chaparral

5.1.1. Chaparral and the Role of Fire

This section discusses the role fire plays in the health and development of this vegetation type, also known as its *ecosystem function.*[54]

5.1.2. Chaparral Fire Regime

This section discusses how combustion takes place in the vegetation type. For example, is the flaming front continuous, at what intensity does it burn, does the fire move rapidly or smolder in this vegetation type, how long are typical flame lengths, etc. The role of wind in influencing fire behavior is also discussed. These are the concepts of fire frequency, seasonality, intensity, and severity.

5.1.3. Chaparral Plant Adaptations to Fire

This section discusses the effect that fire has on the vegetation type, and how the species has adapted to fire over time. Generally, most California vegetation types need some amount of fire to thrive. The challenge is to find that balance where the presence of fire is not too much or too little for the native vegetation to flourish. For example, in chaparral, many areas now burn too frequently, converting native vegetation to exotic weeds.

5.1.4. Chaparral Conservation and Fuel-Reduction Objectives

These are the management objectives in this vegetation type to meet both fire safety and conservation goals.

5.1.5. Chaparral Fuel-Reduction Best Management Practices

This section includes a list of best management practices that residents and land managers can normally employ to reduce hazardous fuels while conserving ecosystem functions and processes.

CHAPTER 6: COMMUNITY CONTEXT

Purpose

This chapter provides the social context for the CWPP. It describes the social, political, and regulatory backdrop for the CWPP and is designed to offer a larger context for community fire-planning efforts. Fire-safe activities can best be tailored to meet community needs and acceptance with an understanding of the other efforts and forces at play in the region.

54 Ecosystem Function: The processes and interactions that occur between organisms and the physical environment.

Audience

This chapter is written for two audiences. First, it is written for residents to provide them with a summary of local land-management agencies and organizations, fire-protection organizations, and local land-use policies. Second, it is written for land-use planners to highlight which planning policies and issues are most relevant to the CWPP and to enable integration of wildfire planning with other planning efforts.

Integration of Fire-Planning Efforts

A steadily growing recognition of community planning needs related to wildfire has resulted in two different approaches being developed through legislative and best-practice efforts in California. These approaches are best described as "Federal/Existing Communities" and "Local/New Communities."

CWPPs are a product of the Federal/Existing Communities effort and serve as a way for existing homes, neighborhoods, or communities to take stock of their fire risks and develop collaborative actions to address those risks. This has led to CWPPs being developed by Fire Safe Councils, community interest groups, or occasionally governmental organizations as a way to support citizen efforts. However, CWPPs traditionally have not been incorporated into a community's more established land-use planning processes, which tend to focus on new development.

This second type of fire-safe planning, which can be termed Local/New Communities, follows a much more prescribed process in California. It revolves around the local government's authority and responsibility to undertake land-use development in a transparent and systematic way, starting from the General Plan all the way down to permits issued for small building improvements. By law, jurisdictions must address wildfire hazard at many different levels in the land-use planning process. They also must develop requirements or mitigations to address any risks, or declare why they are not necessary.

One of the outcomes of these two different approaches is that within a given community, there may be two different and parallel plans developed to address wildfire risk to human communities. One is focused on the existing neighborhoods and is primarily a grassroots process, while the other is driven by government and/or development, in a more structured process. Both may be necessary. Ideally, both processes should be aware of the other and should work to be consistent.

Toward this end, Addendum 3 contains a table of relevant fire-planning documents for the Angeles National Forest/Los Angeles County foothills area. This is not a complete list but includes plans from a variety of sources and levels of government, demonstrating the need for a more integrated approach to community fire-safe planning. *See Addendum 3 for a list of relevant planning documents for the communities surrounding the Angeles National Forest in Los Angeles County.*

Outline

6. Community Context

6.1. Social and Legal Setting

This is an introduction to demographics in the Planning Area, including the role and effects of visitors (e.g. tourists) on the local population, especially during high-visitor months. Census information is a useful resource in this regard.

6.1.1. Community Legal Structure and Jurisdictional Boundaries

This summarizes the different jurisdictions in the Planning Area, and any areas of conflict in terms of jurisdiction or management responsibility.

6.1.2. Land Use and Development Trends

This discusses current trends in land use and development. Preparatory questions include: Are more homes being built in the wildland and/or wildland-urban interface (WUI) areas? Is wildland being converted to urban use? Is there adequate water supply (for fire fighting in the dry season) for these new developments? How is the road network being redesigned (or not) to accommodate this new traffic? Where are those roads going in terms of fire safety (dead-end versus ridgeline roads, etc.)? How does this development either exacerbate the issues described above or provide solutions to those issues?

6.2. Fire Protection Agencies

This section lists the various organizations (federal, state, local and/or volunteer) providing fire protection (fire fighting) in the Planning Area and their key resources. This is a great place to discuss any needs identified by the local fire protection agencies (relevant action items will be discussed in the Action Plan, Chapter 8). This section also addresses Mutual Aid: does it exist, does it work, are there areas not covered? Areas that do not have basic fire protection are identified. Finally, an introduction to the differences among federal, state, and local "protection areas" is provided.

6.3. Public and Tribal Lands

This section surveys the type and location of the many different forests, parks, watersheds, and other public ownerships that comprise the Planning Area. Current management for fire prevention or suppression on these lands is summarized to provide the context for future actions. A review of current and proposed projects is helpful here, especially any collaborative efforts with local residents. Local fire management plans are discussed, including any important policies regarding management of the interface lands (WUI), or actions that directly affect local residents.

6.3.1. Federal Lands

Discusses Angeles National Forest (and any other federal lands) management within the wildland-urban interface.

6.3.2. Tribal Lands

Discusses sovereign tribal lands within the Planning Area and tribal fire-management efforts, including historical versus current trends where possible.

6.3.3. California State Lands

Discusses State Parks and other state-managed lands.

6.3.4. Nonprofit Agency Lands

Discusses land trusts or other nonprofit organizations that own and/or manage lands within the Planning Area, and how they prepare for wildfire.

6.3.5. County Lands

Discusses parks, watershed lands, and other county-managed properties in the Planning Area.

6.3.6. Municipal Lands

Discusses parks, watershed lands, and other city-managed properties.

6.4. Community Planning Context

As described in the "Integration of Fire-Planning Efforts" section above, effective community wildfire planning benefits from the integration of or coordination between all planning efforts across a region. This section analyzes current fire planning, fuel reduction, and other fire-safety activities in terms of the community planning currently taking place or proposed to occur in this CWPP's Planning Area.

Examples of relevant planning information are found in the General Plan (of a city or county) and similar governmental documents.

Preparatory questions include: Is there a Community Action Plan, General Plan, or other document guiding planning and development activities within the Planning Area? If so, how do these documents meet the goals identified in Chapter 1 of this CWPP? Are there conflicts between the goals and proposed actions of this document and those plans? What possible solutions are available to resolve these planning conflicts and ensure that fire safety is incorporated into local and regional planning efforts? What other planning processes are occurring in the area (e.g. housing plan, trails plan, etc.)? How does this fire planning process fit into those processes? Is there a long-term community vision? If so, what is it and how does area fire planning fit into it, or not?

See Addendum 3 for a list of relevant planning documents for the communities surrounding the Angeles National Forest in Los Angeles County.

Two interesting resources for this section are "CommunityViz"[55] and "Metro Quest."[56] These tools are designed to help people visualize, analyze, and communicate about important land-use decisions.

6.4.1. County General Plan

The county General Plan (in this case Los Angeles County) sets land-use policies and guides development. Hence, it is integral to effective fire-safe planning and wildfire preparation.

Area and Community Plans

Many unincorporated communities may also have an Area or Community Plan, which functions in addition to the General Plan for that specific area.

6.4.2. Natural Hazard Mitigation Plans

The Disaster Mitigation Act (DMA) of 2000 requires all states, counties, and cities to have a Natural Hazard Mitigation Plan. This plan is required in order to apply for and receive many FEMA and OES pre-disaster grants.

County All Hazard Mitigation Plan

This is the DMA-required plan for Los Angeles County. It includes wildfires along with other hazards such as earthquakes, floods, and tsunamis.

Local Hazard Mitigation Plan

This is the local equivalent of the county Hazard Mitigation Plan.

6.4.3. Municipal General Plans

As with the county General Plan and area/community plans mentioned above, local jurisdictions (cities) also have General Plans to guide local development.

55 *www.communityviz.com*
56 *http://metroquest.com*

The General Plan for each jurisdiction in the Planning Area is summarized here. Some of the more relevant elements for wildfire in the local General Plans include the following.

- Open Space and Recreation Element
- Conservation Element
- Safety Element

6.5. Integrating Fire-Safe Policies and Actions Between and Among Agencies

Integrating this CWPP planning process into other planning efforts is fundamental to creating policy changes that realistically prepare communities for the eventuality of wildfire. Concurrent with this is promoting cooperation and collaboration among the various agencies working on wildfire issues within the Planning Area. In the case of the Santa Monica Mountains, the Santa Monica Mountains Fire Safe Alliance is a good example of just such a cooperative effort. At the state level, the California Fire Alliance is another example.

This section of the CWPP discusses existing efforts to integrate fire-safe planning and policies. Policy recommendations for integrating wildfire-planning efforts are given in the Action Plan (*Chapter 8 in this example*).

CHAPTER 7: RISK ASSESSMENT: IDENTIFYING AND EVALUATING ASSETS AT RISK

Purpose

A fundamental part of any fire plan is identifying what might be lost in a wildfire, known as assets or values at risk. The purpose of this chapter is to summarize these assets in the Planning Area, and where possible to assess which areas or assets are most threatened by wildfire.

Audience

This chapter is written for those who would fund or implement fire-safety projects in the Planning Area.

Outline

7. Risk Assessment: Identifying and Evaluating Assets at Risk

7.1. Assets at Risk

This section is a summary of those things we hold dear in our communities that could be lost or damaged in a wildfire. Each item below is summarized. Background tables detailing existing assets can be included here or in an appendix.

7.1.1. Homes and Structures

7.1.2. General Infrastructure Assets

7.1.3. Commercial Assets

7.1.4. Schools

7.1.5. Medical Facilities

7.1.6. Cultural Assets

7.1.7. Natural Assets

7.1.8. Conflicts Between Natural Assets and Human Occupation

This last section identifies areas where there is conflict between the natural environment and human occupation, and discusses what the community is doing to address this. The local ecosystem is prone to burning and in some ways requires regular fire to maintain characteristic ecosystem structure. This poses a threat to human communities. Meanwhile, increased human presence results in increased incidence of fire, beyond that of a natural regime.

> As we have come to understand the fine differences between *fire-dependent*[57] and *fire-adapted*[58] vegetation, we are learning that fire-adapted plants still suffer overall health and regeneration challenges when fires burn too frequently. So fire-dependent doesn't always mean it "wants to burn," and fire-adapted doesn't mean that fire carries no negative environmental consequence. One of the challenges emerging today in fire-safe planning is to understand the relationship between plant communities and how fire frequency affects them, and to apply that to the human community's impact on fire cause, mitigation, and response. This is an example of a complex issue for which a CWPP is an effective venue for exploring and balancing these trade-offs.

7.2. Assessing Risks

The first thing to ask when contemplating the community risk assessment is "How will this be used?" Possible uses of a risk assessment include the following:

- Motivate homeowners to improve their risk factor by demonstrating their current hazards and identifying possible mitigations.
- Engage residents in a community discussion about their common problem.
- Educate people about their hazards and choices.
- Identify and prioritize fire-safe projects to determine where available public monies could be directed.
- Support improved levels of service from governmental entities.
- Demonstrate to insurance companies that the community recognizes its problem and is taking action.

As the CWPP is developed, clarity about primary goals for risk assessment will help identify what type of assessment to employ. The more specific and demanding a goal is, the more essential it is to have accurate, quantifiable, and specific elements in the assessment. If the goal is simply to get people to communicate and make some personal choices about their own actions, a more general and qualitative risk assessment is recommended. Below are some ways that various communities conduct WUI Risk Assessments:

General Area Approach:

Uses the Fire Hazard Severity Zones and fire history of an area, along with a general description of the building construction, overall fuels/vegetation, and community demographics to give a broad view of risk.

> An example of this might describe the community as a "High and Very High Fire Hazard Severity Zone with a history of 100-acre or larger fires on average every 3 years within 3 miles of the community borders. Homes are generally 1970 and '80s construction of standard wood-frame with various wall materials and asphalt-shingle roofs. Chaparral vegetation is situated around the edges of the community, and landscaped vegetation is highly mixed with many flammable species. Defensible space is generally poor. Residents are 30–40% primarily Spanish-speaking, and 20% of the population is age 60 or older with limited incomes."

57 Fire-Dependent: Plant communities and specific habitat types that have evolved to rely on fire in order to exist and/or thrive. Fire-Dependent Vegetation is vegetation that depends on some fire for its long-term survival.

58 Fire-Adapted: The ability of organisms or ecosystems to make long-term genetic change for the most advantageous response to fire-prone environments. Fire-Adapted Vegetation is vegetation that has adapted to fire as a disturbance factor, and can generally survive wildfire. In the case of chaparral vegetation, survival depends on fires occurring only every 25 years or more, and it is not adapted to more frequent fire.

Pros/Cons – This type of risk assessment is fairly easy to develop, relies on readily available data, and presents a broadly accurate view of the high hazard, frequent occurrence of larger fires, and moderate-to-poor building construction and defensible space. It also points to some of the considerations to be addressed in changing risk, such as language-specific educational needs or focused assistance options for income and/or physically-limited elder residents. It does not provide specific enough information to prioritize fire-safe projects, nor does it give specific recommendations for mitigations at the homeowner level.

Community Mapping Approach:

As described in the Chapter 2 discussion above, another simple and inexpensive way to address risk is to use available "experts"—the people who live in the community—to work with the CWPP project team and construct more detailed, informative maps in a hands-on exercise. Starting with base maps that show terrain, vegetation, roads, and landmarks, laid over an aerial photo, teams of residents can fill in more specific critical pieces of information. These are then transcribed electronically so the maps can be used and updated in the future.

An example of this might start with a base map for a large neighborhood area that shows a photographic aerial view of the community with houses, roads, public buildings, and general vegetation. During a community meeting, these maps are handed out to resident teams (ideally 6-10 people) who use color-coded markers to add items to the map that they think are important. Special access issues, access points, past fires, water sources, high-hazard areas, helicopter landing sites, and previous fuel-reduction activities are all appropriate. If items need further research or confirmation, the technical/working group members can do this. Information is then incorporated into the more general data approach described above, and the result is a set of maps/community area that has an overall assessment of risk with some specific issues emerging out of the community consensus process that "float to the top" in terms of perceived risk and priority.

Pros/Cons – This can be a valid approach for some communities that want to really focus on acquiring community input, improving education, and motivating homeowners. It is fairly inexpensive but does require some access to good background GIS information and the ability to work with, store, retrieve, and print large maps. Good coo*, www.stateforesters.org/node/792*rdination with first responding agencies can translate community input into emergency plans. This process can be combined with other risk-assessment methodologies to develop both community and technical information. Cons: It can give a fairly broad overview of an area and may not have sufficient detail to track parcel/address-level risks or mitigation activities. Insurance companies may not be willing to consider the results, and the maps may not have a permanent home to track changes from one year to the next. Also, community-level input can have varying degrees of accuracy so may need to be verified before being published.

Parcel-Level Risk Assessment:

This approach starts to develop detailed data at the parcel level. It draws upon general, area-wide information such as fire hazard severity zones, fire weather, fire history, community building, and demographic features including those described in the General Area Approach (#1 above). This assessment then focuses down into the neighborhood level and can incorporate the added information of the Community Mapping Approach, where neighborhood hazard and risk features start to be detailed. These might include such specifics as community fire defense zones, water sources, evacuation routes/zones, and high-value community assets. The final layer brings in individual building materials, home ignition zone features, defensible space, and homeowner preparedness. The result is a customized and rigorous view of the hazards, the mitigations accomplished, and the reduced risk of wildfire a community has achieved.

An example of this would be to start with the overall description of community fire characteristics of frequency, behavior, type, locations, and fire hazard zone designations along with terrain, demographics, and community infrastructure features. Planners would then drill down into detailed depictions (both in map form and as datasets) of the specific community features that are valuable, complex, or potentially

directly impacted by wildfire. This level might include the responder information, community buildings needing special protection, water sources, sensitive habitat areas, assisted-evacuation needs, designated fuelbreak/green zones for fire defense, and community response-to-fire pre-plans. Finally, a third level could describe parcel-level hazards and risks and potential mitigations. It would include building materials such as roof types, vents, and decking and fencing, as well as defensible space, access, and evacuation needs.

Pros/Cons – This more detailed approach addresses a full range of specific hazards, along with mitigations that individuals and communities can take. It is a more expensive undertaking than the generalized view, with the benefits of a richer information database and a better showing of how a community is comprehensively addressing the overall hazard from wildfire and reducing risk. Plans such as these can be utilized by homeowners when discussing insurance requirements with an agent. The more detailed the information provided, the more homeowners are convinced that the individual actions they take have a measurable effect on the total community risk. Cons are primarily the cost (more expensive than the two previously described) and a community belief that the risk assessment is an absolute guarantee of the specific steps needed to survive a wildfire. Community concern over risk methodology and accuracy can be addressed up front as the CWPP process begins, and participants can have early input about the values, information, and expected uses of the assessment.

Risk Assessment Table

This methodology is based on a simple design detailed in the California Fire Alliance's CWPP Simplified Template.[59] It provides a list of criteria that a community can use to guide an analysis of relative risk. It is subjective in some elements in that the community chooses the low/medium/high values but does standardize the risk considerations.

The following elements are included in the risk assessment table:

- Community, Structure, or Area at Risk
- Fuel Hazard
- Risk of Wildfire Occurrence
- Structural Ignitability
- Fire-Fighting Capability
- Overall Risk
- Two additional elements can be useful in southern California: Urban Fuels and Evacuation Ability

This methodology is determined by the geographic zone that the risk assessment describes. For example, a Risk Table approach for all of Western Los Angeles would look much different than one for a small neighborhood. Once the area is outlined, the Risk Table approach will contain the identified key elements for the community and then give a low/medium/high rating for the selected feature such as: Structural Ignitability is high, Fire Fighting Capability is low, and Fuel Hazard is high.

Pros/Cons – The advantage of this approach is simplicity and the utility of using an existing format and template guidance. The community follows the list and fills in their determination of the level of risk presented by one of the selected elements. The disadvantage is that it is subjective, and may overlook finer details and not allow for a clear way to relate mitigation changes to individual homeowner or parcel levels. It can be overly simplistic for communities that have frequent experience with fire and a high demand for complex information.

59 *http://www.cafirealliance.org/cwpp/downloads/cwpp_template.doc*

7.3. Furthering the Risk Assessment

A regional CWPP assesses and compares wildfire risk at a coarse scale, which is generally between communities. As described above, both the parcel-level risk assessment and community mapping exercise can occur at the local level, even down to a neighborhood level. This section discusses what further risk assessment is needed in the Planning Area, at what level, and in some cases where that assessment should begin.

CHAPTER 8: CWPP ACTION PLAN

Purpose

The action plan is where actions to address the wildfire problem identified in the CWPP are described. This list of recommended actions is organized by subject areas and reflects the general consensus of plan signatories. The actions are prioritized by short- (1–2 years), medium- (2–5 years), and long-term (5 or more years) implementation.

These actions are to be implemented by stakeholders, Fire Safe Councils, and other community organizations. Actions to be implemented by residents are described in Part II: Community Fire Safety Action Plans.

Audience

This chapter is written for all CWPP readers, from residents to government decision-makers at the state and federal levels. It is especially useful for Fire Safe Councils and other community organizations as the basis for a strategic action plan.

Outline

8. CWPP Action Plan

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

As stated in Chapter 4, the most effective strategy in protecting communities from wildfire is to begin fire safety practices in homes and neighborhoods.

8.1.1. Fire Safe Councils

Organizing neighborhoods and communities to understand and carry out ongoing cooperative and personal fire-safety measures is the most effective long-term strategy for living with fire. The Fire Safe Council[60] is a great structure to implement this community organizing.

8.2. Hardening Homes to Survive Wildfire—Reducing Structural Ignitability

Homeowner actions are vital to protect structures.

8.2.1. Implementing WUI Building Standards

Educating residents and providing incentives to implement WUI building standards and otherwise harden homes is an important component of a fire-safe community.

8.3. Reducing Urban Fuels

Urban fuels are the scattered or stored things that can burn around our homes, including ornamental vegetation.

60 *www.firesafecouncil.org*

8.3.1. Reducing Fuels Around Homes and Other Structures

Organizing residents and neighbors to remove especially hazardous or flammable fuels around their homes is an early, vital, ongoing, and relatively simple effort.

8.3.2. Hazard Tree Management Program

Identifying specific trees for removal or *thinning*[61] is a great project to bring neighbors together and begin fire-safety activities. Flammable species to target include eucalyptus, pine, palm, and Italian cypress, especially trees potentially threatening evacuation routes or several homes at once. Native trees are generally not considered hazardous in this context, but may require pruning.

8.3.3. Community Chipping Program

Community *chipping programs*[62] organized around California are an effective way to quickly treat and remove hazardous fuels from an area. These programs share expensive resources—a chipper and crew—over a larger area and/or more people to help reduce overall costs.

8.4. Assessing Risks at the Local Level

As described in the description for Chapter 7, efforts are needed throughout communities to further identify and prioritize assets at risk at the local level—including those houses or neighborhoods most at risk and that often threaten other structures.

8.5. Reducing the Risk of Wildfire

Taking steps to reduce ignition potential and other risks must go hand in hand with reducing hazardous fuels. Arson Watch and similar programs are essential to this end.

8.6. Enhancing Fire Protection

These actions are identified through the discussions with fire-protection agencies summarized in Chapter 6 and the community meetings. A list of actions is identified to support and enhance fire-protection efforts at the local level.

8.6.1. Resources for Fire Protection

These resources include items such as equipment, staffing levels, and station locations that can make a difference in local fire protection.

8.6.2. Water

Water shortage is common in southern California. This section discusses those places with the most vulnerable water issues in terms of wildfire and suggests actions to remedy them.

8.6.3. Roads

This section discusses *ingress and egress*[63] issues such as damaged roads, locked gates, etc. It also suggests actions to minimize blocking of roads by trash cans, parked vehicles, etc.

8.6.4. Signage of Roads and Structures (Addressing)

Although the law requires that all homes and roads be adequately signed for emergency response, this is an ongoing effort throughout the state. Actions are identified to help remedy any lack of proper signage at the local level.

61 Thinning: The act of removing a percentage of vegetation to encourage an open space and healthy growth for the remaining vegetation.
62 Chipping Program: A program where several individuals or communities share the resources associated with processing debris from fuel-reduction activities, including the chipper, staff, insurance etc.
63 Ingress-Egress: Roads and other avenues to enter and leave a property. Also refers to the act or right to come in or go through, as in entering a property (ingress), and the act or right to depart or go out, as in exiting a property (egress).

8.7. Ensuring Safe and Effective Evacuation

8.7.1. Developing Evacuation Routes and Sites

This section identifies areas with evacuation issues such as frequent landslides, one-way access, and topographical issues that potentially limit evacuation.

8.7.2. Evacuation Plans for Pets and Large Animals

Evacuating pets and domestic livestock such as horses can be especially challenging. Actions to facilitate this are discussed here.

8.8. Community Emergency Preparedness

Community Emergency Response Teams (CERT) are discussed here, as well as other ways communities can work together to prepare for emergencies.

8.8.1. Emergency Notification and Communications

Mass notification systems utilizing landlines and cell phones, the Internet, and other means are discussed here.

8.8.2. Residential Emergency Preparedness

Preparedness starts in the home. This section identifies actions to help residents be ready with family emergency response plans, as well as collective efforts to support such planning and preparation.

8.9. Promoting Fire-Safe Education

Education regarding how to live with wildfire is appreciated by citizens and can be extremely effective in actual emergencies. Education needs to take place at many levels, and to various audiences. These efforts are discussed here.

8.9.1. Fire-Safety Education in Schools

This is happening in many communities. Model programs are discussed and recommended.

8.9.2. Fire-Safety Education for New Residents and Tourists

Educating and welcoming new residents and visitors with effective fire-safety information allows them to be part of the solution, not the problem.

8.10. Integrating Community Fire Safety into Local Policies

This section identifies the policy changes developed in Chapter 6 to integrate the CWPP and other community wildfire planning efforts into existing policy and planning frameworks at the local, county, and regional scales.

8.11. Integrating Fire Safety and Conservation Efforts

Wildfire and fire suppression both can have damaging effects on local ecosystems. Actions are identified to minimize this impact, while potentially promoting restoration of natural areas at the same time.

8.12. Designation of Wildland-Urban Interface Areas

CWPPs give communities the ability to identify where they think the Wildland-Urban Interface line should be on nearby public lands, such as the Angeles National Forest. Designation of WUI assists federal agencies (e.g. the National Forest) in implementing projects specifically aimed at reducing the risk of wildfire to neighboring communities. The projects identified in this plan also help the Forest administrators compete nationally for funding to implement those projects.

8.13. Designation of Communities at Risk

Any communities not already identified as a "community at risk from wildfire" can be listed here and recommended to be added to the state and national lists. This is ultimately up to each community to decide whether to be listed or not.

8.14. Facilitating Fire Safety over the Long Term

A CWPP will only be as effective as the community who is implementing it. Building strong, enduring cooperative efforts at the local level is critical to long-term wildfire safety. Actions to support these efforts and keep the CWPP relevant and effective over the long term are identified in this section.

CHAPTER 9: FACILITATING FIRE SAFETY OVER THE LONG TERM

Purpose

The purpose of this chapter is to introduce the concept of monitoring to ensure that the CWPP is effective in meeting its purpose and objectives. Without follow-up and learning from prior actions, the long-term benefits of fire-safety actions can be undermined. It also discusses updating of this CWPP and resources needed to implement it.

Audience

This section is written for those who will implement the projects identified in the CWPP and the plan as a whole, and especially for residents and area personnel who will live and work with the results in the long term.

Outline

9. Facilitating Fire Safety over the Long Term

9.1. Monitoring

Monitoring fuel reduction and fire safety projects both for their effectiveness and ecological impact aids the design and implementation of better projects.

9.1.1. Project Monitoring

This section discusses ways to track project effectiveness. It includes a project-tracking matrix to assist Fire Safe Councils and other groups in project implementation. The simple methodology of photo point monitoring is discussed to track fuel-reduction projects.

9.1.2. Ecological Monitoring

This section discusses resources to assist in monitoring the ecological impacts of fuel-reduction projects.

9.2. Project Maintenance

How to maintain fuel-reduction projects over time is an ongoing challenge. This section discusses these options, including the important issues surrounding funding projects and maintenance.

9.3. Updating This Plan

CWPPs can quickly become out of date. It is recommended they be updated at least every five years. CWPPs can be written in a binder format so they are easy to change. Methodologies for updating are discussed here.

9.4. Resources Needed to Support Ongoing Efforts

Supporting Fire Safe Councils and the other community leaders who will implement the CWPP is a wise investment. Support could come in terms of training, education, organizational development, and fundraising, in addition to funding. Identifying resources for supporting these efforts, as well as the projects themselves, is an ongoing challenge. Options for funding CWPP implementation are discussed. Suggestions are made for finding resources to implement the CWPP.

TEMPLATE PART II: Community Fire Safety Action Plans

A regional CWPP is a coarse-scale approach to community wildfire planning. In addition to identifying actions that need to happen throughout the Planning Area, or in larger areas, many actions need to occur at the local level. Hence, these Community Fire Safety Action Plans were developed to identify issues and actions specific to each planning unit. In the case of the communities surrounding the Angeles National Forest, these plans could be done at the individual community level or smaller.

Outline

Community Description

This section is similar to Chapter 1 of the CWPP in that it discusses location and demographics, in this case of an individual planning unit and not the entire CWPP Planning Area.

Current Fire Environment

This section discusses the fire history specific to the planning unit, as well as specific wildfire risks and hazards for the area.

Community Meeting Summary

The community meeting(s) held for this particular planning unit is summarized here. The number of attendees and date and location of the meeting are provided. The information gathered through the mapping exercise can be summarized here and/or listed in an appendix.

Community-Identified Potential Projects

The list of community-identified projects and their priority ranking is shown here.

Action Plan

A list of actions that can be undertaken by local residents, Fire Safe Councils, homeowner's associations, or other neighborhood organizations is recommended, including specifics such as where to remove hazardous trees as part of the larger programs identified in Chapter 8.

TEMPLATE PART III: Appendices

There are several appendices that provide background or supporting material for the CWPP.

A – Community Meeting Participants

Lists the people who attended the community meetings, by name only.

B – Mapping Exercise Instructions

This exercise is used for the mapping efforts in the community meetings (where it functions as a hand-out) and is provided in the CWPP to show what people were asked to do *(see Addendum 2 in this document),* and as a resource for communities wanting to undertake this exercise themselves.

C - Outreach Efforts Table

This table summarizes the outreach efforts of the CWPP.

D - Community Review Committee and Stakeholder Reviewers

This table lists the people who volunteered to be community or stakeholder reviewers of draft CWPP documents.

E - Fire History Data

This data table supports the fire history maps in Chapter 3.

F - Threatened and Endangered Species Tables

Lists the main sensitive species in the Planning Area with a summary of their habitat requirements. This is provided so people implementing fuel-reduction projects are aware of possible "listed" species in the area that will require further analysis.

G - Environmental Compliance Information

These documents summarize environmental (and archeological) compliance requirements for implementing fuel-reduction projects.

H - Fire Safety Information

This includes copies of key brochures and recommended Internet links for residents, Fire Safe Councils, and other community organizations to use. It includes the text of Public Resources Code 4290, which requires defensible space in California.

I - Local Fire Safety Regulations

A copy of local, relevant fire safety (WUI construction and brush clearance) regulations can be found here.

J - GIS Metadata

This table summarizes the data used to create the maps throughout the CWPP.

TEMPLATE PART IV: References and Maps

A series of reference documents and maps also serves to support the CWPP.

References

Ref I - Glossary

This glossary defines all the terms used in the CWPP, such as the terms defined in footnotes in this document.

Ref II – Reference Documents

This contains a listing of all the references used in the CWPP and some broad-based related resources, such as Internet links. It is organized by CWPP chapter to provide further information on topics discussed throughout the plan.

Maps

A set of maps accompanies the CWPP. They are listed here by chapter.

Chapter 1: Introduction/Land Ownership, Communities (including designated "Communities at Risk")

Chapter 2: Planning Units

Chapter 3: Fire History, Hydrology, Fuel Hazards, Fire Regime Condition Class

Chapter 4: none

Chapter 5: Vegetation

Chapter 6: Fire Protection

Chapter 7: none

Chapter 8: Possible Maps: Proposed WUI, Evacuation Routes

Chapter 9: none

Creating a CWPP for the Communities of the Angeles Forest

The communities surrounding the Angeles National Forest are among those at greatest risk of wildfire in the nation, as evidenced by the 2009 Station Fire. Many efforts are underway to prepare residents in these areas to not only survive the next wildfire, but to avoid disaster by proactively preparing their homes and communities for the eventuality of fire. It is possible to dramatically reduce the risk posed by catastrophic wildfires in high-risk areas. Collaborative wildfire planning is the tool to bring this about.

Effective community wildfire planning begins by bringing the community (residents) and stakeholders together to creatively explore options for living with wildfire. This document is a first step toward that process. The next possible step would be to begin discussions locally about what developing a CWPP for the Communities of the Angeles Forest would entail. What issues need to be addressed for this place specifically? What process would be most effective to bring everyone to the table to have a voice in creating fire-safe communities?

Wildfire is especially challenging in the foothills, valleys, and lakes surrounding the Angeles National Forest. What works in other places may or may not work here. There is significant, and growing, local knowledge and experience regarding how to prepare for wildfire in this region. Through a CWPP-process tailored specifically for the area, change can be effected *from the house out,* to make the neighborhoods and communities around the Angeles Forest a model for fire safety nationwide.

For More Information

See attached for the Addendum:

ADDENDUM 1: Sample Community Meeting Agenda

ADDENDUM 2: Community Meeting Mapping Exercise

ADDENDUM 3: Relevant Planning Documents for CWPPs in and around the Angeles National Forest

For more information on CWPPs, please visit:

California Fire Alliance, *www.cafirealliance.org/cwpp/*

National Association of State Foresters et al., **Preparing a Community Wildfire Protection Plan: A Handbook for Wildland–Urban Interface Communities** (2004), *www.stateforesters.org/node/792*

Partnership Resource Center, **Community Guide to Preparing and Implementing CWPPs** *(August 2008), www.partnershipresourcecenter.org/cwpp/*

Sierra Nevada Community Conservation and Wildfire Protection Plan Guidebook. *www.forevergreenforestry.com/SierraConservationCWPP.html*

For a complete version of the Santa Monica Mountains CWPP, please visit:

www.forevergreenforestry.com/SantaMonicaMountainsCWPP.html

Other ForEverGreen Forestry CWPPs:

www.forevergreenforestry.com/fire.html

THE AUTHORS WOULD LIKE TO THANK THE FOLLOWING PEOPLE FOR THEIR CONTRIBUTION TO THIS DOCUMENT:

J. Lopez, Laura "Cha" Vernetti, Kathy Glass, Terri Anderson, Deanna Sverdlov, four waters media, Heather McCollister, Stephen Umbertis, Elizabeth Keys, Rachel Smith, the staff of the California Fire Safe Council, and our colleagues who provided peer review.

ADDENDUM 1: Sample Community Meeting Agenda

6:00-6:30	Sign In Review Literature Refreshments
6:30-6:40	Welcome & Overview
6:40-6:50	Introductions: • *Project and Collaborators* • *CWPPs* • *Fire Safe Councils*
6:50-7:35	Fire Safety and the Home Ignition Zone
7:35-7:45	Introduce Mapping Exercise
7:45-8:40	Mapping Exercise (*See Addendum 2*)
8:40-8:55	Identify Priority Projects, Community Prioritization
8:55-9:00	Close

ADDENDUM 2: Community Meeting Mapping Exercise

Community Assets (Values) at Risk *(Green Highlighter)*

- Where are the places and things you most value and want to see protected from wildfire? Examples include:
  - Hospitals and health care facilities
  - Businesses
  - Schools, churches, and stores
  - Community centers
  - Rare and endangered species habitat; ecologically significant areas
  - Recreation areas
  - Culturally or historically significant areas
- What critical infrastructure needs to be protected from wildfire? Examples include:
  - Power substations and corridors
  - Communication sites and facilities, including cell phone towers
  - Landfills and treatment facilities

Wildfires Causes, Risk, and Hazards *(Orange Highlighter, Red Marker, Pink Highlighter)*

- What kinds of conditions have started wildfires in the past? Where have they started?
- What are the causes of wildfire in your community?
- Where do you think a wildfire would start in your community and why?
- What are other wildfire risks and hazards in your community?
  - Dead vegetation (insect, disease, fire, drought)
  - Fuel storage
  - Abandoned wooden structures, abandoned lots and/or absentee parcels.
  - Power lines
  - Road systems: blocked, heavily vegetated, or dead-end roads
  - Party spots
- What kind of road or structural conditions might increase fire risk? (*Red Marker*)
  - Road maintenance needs (outages, slides, etc.)
  - Bridges and/or locked gates, especially bridges too small or weak to carry a fire truck

Fire Safety *(Pink Highlighter)*

- Where have fuel reduction projects already occurred? Identify defensible space and fuel-reduction treatments.

Protection Capabilities (*Blue Highlighter and Marker, Black Marker,*)

- Are there any resources for fighting fires, and where are they located?
  - Water storage: tanks, ponds, pools (Blue marker dot w/# for 1,000 gallons (e.g. 5 =5,000)
  - Equipment (*Black Marker*)

- What information needs updating?
  - Updated road conditions: roads that do not exist on the maps, or are on the maps and do not exist on the ground. (*Black Marker*)

- What evacuation plans are in place?
  - Access routes/evacuation: Where are the safe routes to get out quickly?
  - Safe Zones: If you can't evacuate, where can you safely wait out a fire?

Priorities for Action (*Yellow Highlighter*)

If you were king or queen for a day, what would you do to make your community fire safe? How can you be part of the solution? Don't be concerned at this point about who owns the land or what it would cost.

- Starting from the house out, what can we do to make our neighborhood and/or community safe?
  - Hardened homes
  - Neighborhood projects
  - Education
  - Demonstration gardens/fire-safe landscaping demonstration projects
  - Senior/disabled/low-income home ignition zone assistance projects
  - Fire-safe assessment training and workshops

- Where would community fuel treatments be most effective? What types of treatments?
  - Hazardous vegetation removal or reduction
  - Hazard tree management
  - Shaded fuelbreaks
  - Roadside fuels reduction
  - Others?

- What other wildfire protection activities would you like to see implemented?
  - Create or strengthen Fire Safe Councils
  - Improve access routes/evacuation routes
  - Education
  - Equipment
  - Ignition reduction
  - Water storage: tanks, ponds, pools (*Blue dot w/yellow circle*)

- Which projects are your highest priority and why?

Now think about ownership, cost, effectiveness, etc. What do you want to see happen soonest?

The prioritization method is to take the total number of identified projects, divide it by 3, and give each participant that number of sticky dots. Instruct participants to place one dot (only one vote per item) on each of their priority projects. Tally "votes," and number on flip chart in red. Then ID the top three to five vote-getters as the top priorities for the group. The result will be a J-curve of the group's prioritization preferences.

ADDENDUM 3: Relevant Planning Documents
for CWPPs in and Around the Angeles National Forest

MANAGEMENT AGENCY	DOCUMENT NAME	DATE	LINK	STATUTORY-S POLICY-P ADVISORY-A	SHORT SUMMARY
FEDERAL					
Fish & Wildlife Service (USFWS)	Endangered Species Act	1973	*www.fws.gov/laws/lawsdigest/esact.html*	P	Requires identification and mitigation for federally protected species.
Environmental Protection Agency (EPA)	National Environmental Policy Act	1969	*www.epa.gov/compliance/nepa/*	S	Analysis and assessment of a project's impact to the environment.
EPA	Clean Water Act	1972	*www.epa.gov/oeccaagct/lcwa.html*	S	Sets provisions and requirements for water quality and quantity, and watershed health.
EPA	Clean Air Act	1963	*www.epa.gov/air/caa/*	S	Sets provisions and requirements for air quality.
USFWS	Endangered Species Policy Act	1994	*http://www.nmfs.noaa.gov/pr/laws/esa/policies.htm*	S	Requires analysis and mitigation of activities that negatively impact recognized plant and animal species.
Dept. of Interior (USDOI)	Federal Wildland Fire Management Update	2001	*www.nwcg.gov/branches/ppm/fpc/archives/fire_policy/history/index.htm*	P	Overview of federal programs and policies for wildfire planning, prevention, mitigation, and response.
Dept. of Agriculture (USDA)	Angeles National Forest Land Management Plan	2006	*www.fs.fed.us/r5/angeles/projects/ForestPlan.shtml*	A	Broad descriptions of the forest's projects, EIRs, and activities.
Federal Emergency Management Agency	Local Multi-Hazard Planning Mitigation Guidance	2008	*www.fema.gov/library/viewRecord.do?id=3336*	P	Describes requirements for local (county, city) Natural Hazard Mitigation Plans.
STATE					
State of CA — Governments Office of Planning and Research (OPR)	California General Plan Guidelines	2003	*www.opr.ca.gov/planning/publications/General_Plan_Guidelines_2003.pdf*	A	Outlines formats and topics for including wildfire safety concerns into General Plans.
CAL Emergency Management Agency	Hazard Mitigation Plan	2007	*http://hazardmitigation.calema.ca.gov/plan/state_multi-hazard_mitigation_plan_shmp*	A	Describes primarily the overall hazard from wildfire and the various recommendations for state/local mitigations.
CAL Dept. of Forestry and Fire Protection (CAL FIRE)	California Fire Plan	2010	*http://bof.fire.ca.gov/board_committees/resource_protection_committee/current_projects/resources/strategicfireplan_june2010_06-04_photos.pdf*	A	Gives broad goals for addressing wildfire in CA.
CAL FIRE	Fire Safe Planning Program-Industrial Operations Fire Prevention Field Guide		*http://osfm.fire.ca.gov/codedevelopment/codedevelopment_firesafeplanning.php*	P	Gives specific but outdated information on wildfire hazard planning and engineering.

MANAGEMENT AGENCY	DOCUMENT NAME	DATE	LINK	STATUTORY-S POLICY-P ADVISORY-A	SHORT SUMMARY
CAL FIRE	Title 14		*www.fire.ca.gov/fire_prevention/downloads/Title_14.pdf*	S	Legal requirements for land use and building in State Responsibility Areas (SRA) designated lands.
State of CA	CA Code of Regulations		*www.oal.ca.gov/*	S	Legal requirements for land use and building in SRA and Local Responsibility Areas (LRA) designated lands.
State of CA - Housing and Community Development	Title 25		*http://government.westlaw.com/linkedslice/default.asp?Action=TOC&RS=GVT1.0&VR=2.0&SP=CCR-1000*	S	Legal requirements for Mobile Homes (MH) and MH Parks in Fire Hazard Severity Zone (FHSZ) areas.
State of CA - Building Standards Commission	Title 24 - State Building and Fire Codes		*http://government.westlaw.com/linkedslice/default.asp?Action=TOC&RS=GVT1.0&VR=2.0&SP=CCR-1000*	S	Building and fire code requirements for development in SRA and LRA lands.
CA Fish & Game	CA Endangered Species Act		*www.dfg.ca.gov/hcpb/ceqacesa/cesa/incidental/cesa_policy_law.shtml*	S	Requires analysis and mitigation of activities that negatively impact recognized plant and animal species.
State Responsibility Area	Public Resources Code 4102, 4125-4229 and 14 CCR 1220		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4101-4104, www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4125-4137*	S	Defines where State Responsibility Areas are and CAL FIRE legal obligations. In Los Angeles County, Los Angeles County Fire Department is contracted by CAL FIRE to provide fire protection to these areas.
State Fire Plan and Intensity of Fire Protection	Public Resources Code 4111, 4114, 4130		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4111-4123, www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4125-4137*	S	Defines requirements for State Fire Plan and establishes requirements for Level of Service.
Hazardous Fire Areas	Public Resources Code 4251-4255 and 14 CCR 1200:		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4251-4290 www.fire.ca.gov/ResourceManagement/DOC/FPR200201.doc*	S	Allows designation for area closures and other restrictions for fire prevention.
Fire Safety Standards	Public Resources Code 4290 and 14 CCR 1270 et seq.		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4251-4290 www.fire.ca.gov/ResourceManagement/DOC/FPR200201.doc*	S	Defines road design, driveway width, clearance, turnouts, turnarounds, signing, and water regulations related to fire safety.

MANAGEMENT AGENCY	DOCUMENT NAME	DATE	LINK	STATUTORY-S POLICY-P ADVISORY-A	SHORT SUMMARY
Defensible Vegetation Clearing Around Structures	Public Resources Code 4291 14 CCR 1299	2008	*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4291-4299* *www.fire.ca.gov/ResourceManagement/DOC/FPR200201.doc*	S	Defines statewide defensible space requirements.
Fire Prevention for Electrical Utilities	Public Resources Code 4292-4296 and 14 CCR 1256		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4291-4299* *www.fire.ca.gov/ResourceManagement/DOC/FPR200201.doc*	S	Addresses the vegetation clearance standards for electrical utilities.
Fire Hazard Severity Zones	Government Code 51175		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=51001-52000&file=51175-51189*	S	Establishes this zoning designation and its implementation.
Wildland Urban Interface Building Standards	Government Code 51189		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=51001-52000&file=51175-51189*	S	Established creation of WUI building standards to be developed by Office of the State Fire Marshal.
General Plan Fire Safety Element Review	Government Code 65302.5		*http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=65001-66000&file=65300-65303.4*	S	Requires Board of Forestry and Fire Protection to provide recommendations to a local jurisdiction's General Plan fire safety element at the time that the General Plan is being amended.
LOCAL					
Los Angeles County	Building Code		*www.ladbs.org/permits/codes.htm*	S	Los Angeles County Specific Building Code Requirements.
Los Angeles County	WUI Building Standards		*http://fire.lacounty.gov/FirePrevention/wildfire_Rebuild_Guid.asp*	S	Building and rebuild requirements for wildland-urban interface areas.
Los Angeles County	Building Requirements in Very High Fire Hazard Severity Zones		*http://fire.lacounty.gov/FirePrevention/Malibu_Rebuild_docx/BUILDING_REQUIREMENTS_INTHE_VERY_HIGH_FIRE_HAZARD_SEVERITY_ZONE_9_08.pdf*	S	Requirements specific to Very High Fire Hazard Severity Zones.
Los Angeles County	Los Angeles County Dept. of Regional Planning Draft General Plan	1980	*http://planning.lacounty.gov/assets/upl/project/gp_web-ch-all.pdf*	P	Countywide planning policies and goals.
Los Angeles County	Los Angeles County General Plan Update Program	2008	*http://planning.lacounty.gov/generalplan#anc-download*	P	Draft update to General Plan.

MANAGEMENT AGENCY	DOCUMENT NAME	DATE	LINK	STATUTORY-S POLICY-P ADVISORY-A	SHORT SUMMARY
Los Angeles County	Subdivision & Zoning Interpretation & Procedures Manual		*http://planning.lacounty.gov/assets/upl/data/ip_manual-2nd.pdf*	P	Countywide planning policies and goals related to subdivision and zoning.
Los Angeles County	Planning & Zoning Ordinance		*http://search.municode.com/html/16274/index.htm*	S	Comprehensive local ordinances adopted throughout Los Angeles County.
Los Angeles County	Los Angeles County Fire Plan, Pre-Fire Management Plan	2004	*http://fire.lacounty.gov/Forestry/FirePlan.asp* *http://fire.lacounty.gov/Forestry/PDF/LACoFDPre-FireMgmt.pdf*	S/P	Defines a level of service measurement, considers assets at risk, and incorporates the cooperative inter-dependent relationships of wildland fire protection providers and stakeholders.
Los Angeles County	Fire Code, Title 32		*http://search.municode.com/html/16274/_DATA/TITLE32/index.html*	P	Complete fire code
CA/Los Angeles County	2008 CA Green Building Standards Code	2008	*www.ladbs.org/permits/2008_green_bldg_code.pdf*	S	Green building requirements and programs for Los Angeles County.
Los Angeles County	Los Angeles County Regional Recreation Areas Plan	1965	*http://planning.lacounty.gov/assets/upl/project/gp_web80-regional-recreation-areas-plan.pdf*	P	Overview of Los Angeles County parks - existing and planned.
Los Angeles County	Los Angeles Parks & Recreation Master Plan	2003	*http://www.ceqanet.ca.gov/ProjDocList.asp?ProjectPK=594320*	P	Consolidated Los Angeles County Parks Plan
Los Angeles County	Clearance of Brush and Vegetative Growth, Title 32 Fire Code, Section 317		*http://search.municode.com/html/16274/index.htm.*	S	Fuel reduction requirements around homes and structures.
Los Angeles County	Oak Tree Ordinance		*http://fire.lacounty.gov/Forestry/EnvironmentalReview_OakTreeOrdiance.asp*	P	Defines permit requirements for pruning or cutting oak trees.
Southern CA Council of Governments	Regional Comprehensive Plan		*www.scag.ca.gov* *www.scag.ca.gov/rcp/index.htm*	A	Develops regional vision for long-term growth with a voluntary, best practices approach for integrated planning.
City of Los Angeles	CA Env. Quality Act (CEQA), City of Los Angeles Environmental Quality Act Guidelines		*http://cityplanning.lacity.org/EIR/CEQA_Guidelines/City_CEQA_Guidelines.pdf*	P	Adopts as city statute all the same CEQA provisions as the state enacts, with some local exemptions.
Los Angeles County	Altadena Community Plan	1986	*http://planning.lacounty.gov/view/altadena_community_plan/*	P	Describes the broad framework of programs and policies for community development characteristics.
Los Angeles County	Antelope Valley Area Plan	1986	*http://planning.lacounty.gov/view/antelope_valley_area_plan/*	P	Describes the broad framework of programs and policies for community development characteristics.
Los Angeles County	Town and County: Antelope Valley Area Plan		*http://planning.lacounty.gov/tnc*	P	Antelope Valley Area Plan update.

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Los Angeles County	Canyon Park Specific Plan	1986	*http://planning.lacounty.gov/assets/upl/data/pd_sp_canyon-park.pdf*	P	Describes the broad framework of programs and policies for community development characteristics.
Los Angeles County	Santa Clarita Valley Area Plan	1984	*http://planning.lacounty.gov/assets/upl/data/pd_santa-clarita.pdf*	P	Describes the broad framework of programs and policies for community development characteristics.
Los Angeles County Sunland-Tujunga Neighborhood Council (STNC)	Sunland-Tujunga Community Plan		*www.stnc.org/documents/CityDocs/S-T_CommunityPlan.pdf*	P	
Los Angeles County STNC	Foothill Blvd. Corridor Specific Plan & Design Guidelines Manual		*www.stnc.org/documents/dac/projects/FOOTHILLPLAN.pdf*	S	Describes specific building, zoning, and siting requirements for defined area.
Los Angeles County STNC	San Gabriel Mtns Verdugo Mtns Specific Plan		*www.stnc.org/documents/CityDocs/SanGab_Verdugo.pdf*	S	
Los Angeles County	Community Standards Districts		*http://planning.lacounty.gov/assets/upl/project/zoup_div-9-draft.pdf*	P	Area-specific Community Development Standards including fire planning provisions.
Los Angeles County	East Pasadena-San Gabriel CSD		*http://search.municode.com/html/16274/_DATA/TITLE22/Chapter_22_44_SUPPLEMENTAL_DIS.html#30*	A	Local Community Standards District
Los Angeles County	Agua Dulce CSD		*http://search.municode.com/html/16274/_DATA/TITLE22/Chapter_22_44_SUPPLEMENTAL_DIS.html#15*	A	Local Community Standards District
Los Angeles County	Leona Valley CSD		*http://search.municode.com/html/16274/_DATA/TITLE22/Chapter_22_44_SUPPLEMENTAL_DIS.html#21*	A	Local Community Standards District
Los Angeles County	La Crescenta-Montrose CSD		*http://search.municode.com/html/16274/_DATA/TITLE22/Chapter_22_44_SUPPLEMENTAL_DIS.html#34*	A	Local Community Standards District
Los Angeles County	Juniper Hills CSD		*http://search.municode.com/html/16274/_DATA/TITLE22/Chapter_22_44_SUPPLEMENTAL_DIS.html#36*	A	Local Community Standards District

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Los Angeles County	Elizabeth Lake and Lake Hughes CSD		*http://search.municode.com/html/16274/_DATA/TITLE22/Chapter_22_44_SUPPLEMENTAL_DIS.html#39*	A	Local Community Standards District
Arcadia	General Plan	1996	*http://www.ci.arcadia.ca.us/home/index.asp?page=1586*	P	Current draft under review
Azusa	General Plan	2004	*http://www.ci.azusa.ca.us/index.aspx?nid=160*	P	
Bradbury	General Plan	2007	*http://www.cityofbradbury.org/images/stories/bradbury_general_plan.pdf*	P	
Claremont	General Plan	2006	*http://www.ci.claremont.ca.us/ps.topics.cfm?ID=1688*	P	Under review
Duarte	General Plan	2007	*http://www.accessduarte.com/Generalplan/*	P	
Glendale	General Plan	2009	*http://www.ci.glendale.ca.us/planning/plan.asp*	P	
Glendora	General Plan	2008	*http://www.ci.glendora.ca.us/index.aspx?page=57*	P	Being updated
La Canada	General Plan	1995	*http://www.lacanadaflintridge.com/city/city_hall/planning/genplan.htm*	P	Currently under review
La Verne	General Plan	1990	*http://library.ceres.ca.gov/cgi-bin/doc_home?elib_id=1806*	P	2008 draft
Lancaster	General Plan	2009	*http://www.cityoflancasterca.org/index.aspx?page=428*	P	
Los Angeles	General Plan	1996, 2001	*http://cityplanning.lacity.org/cwd/Framwk/fwhome0.htm*	P	
Monrovia	General Plan	1966	*http://www.nhanced.net/sites/site15/documents/ConservationElement.pdf*	P	
Palmdale	General Plan	1993	*http://www.cityofpalmdale.org/departments/planning/general_plan/*	P	
Pasadena	General Plan	2009	*http://ww2.cityofpasadena.net/publicaffairs/General%20plan/GP_Rev_2/Gen_Plan_main2.asp*	P	Being updated
San Dimas	General Plan	1991	*http://www.cityofsandimas.com/ps.developmentservices.cfm?ID=2404*	P	

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San Fernando	General Plan	2005	*http://www.ci.san-fernando.ca.us/city_government/departments/comdev/news/Draft%20EIR/Sec02.Introduction.pdf*		
Santa Clarita	General Plan	1991	*http://www.santa-clarita.com/Index.aspx?page=695*		
Sierra Madre	General Plan	1996	*http://www.cityofsierramadre.com/index.php?mod=general_plan*		Being Updated
OTHER POTENTIAL BENEFICIAL LINKS					
California Fire Alliance			*www.cafirealliance.org/cwpp/*		
CAL FIRE	CA Wildfire Urban Interface Code Information		*www.fire.ca.gov/CDFBOFDB/pdfs/Copyof4291finalguidelines9_29_06.pdf*		
CAL FIRE	General guidelines for creating defensible space		*www.fire.ca.gov/CDFBOFDB/pdfs/Copyof4291finalguidelines9_29_06.pdf*		
National Association of Conservation Districts	Resource Guides		*http://nacdnet.org/resources/guides/*		
Natural Resources Conservation Service (NRCS)	NRCS Technical Information-Links		*www.ca.nrcs.usda.gov/technical/*		
USDA	Plant database		*http://plants.usda.gov*		