COMMUNITY GUIDE to Preparing and Implementing a Community Wildfire Protection Plan

AUGUST 2008

A supplemental resource guide to *Preparing a Community Wildfire Protection Plan:A Handbook for Wildland-Urban Interface Communities. March 2004.*

Cover: *(top) community planning in Curry County, OR; (center) Maupin, OR (John Harrington, Sustainable Northwest).*

COMMUNITY GUIDE

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Introduction

"Drought conditions, the build-up of hazardous fuels, and more homes in fire-prone landscapes are changing how we experience wildfire in America." –

National Association of State Foresters,
Washington, DC, November 26, 2007

For more than a decade, Congress has made the protection of communities from wildfire a national priority. Yet, since the establishment of the National Fire Plan (2000) and the Healthy Forests Restoration Act (HFRA 2003) the issues regarding deteriorating health of our forests and the need for greater community protection from wildfire are still prominent. Indeed, as fire suppression costs have exceeded $1 billion in recent fire seasons, communities, interest groups, and land management agencies continue to express their concerns to Congress and the Administration regarding mounting risks to life, property and the environment.

Fires can be more costly to suppress in the wildland urban interface -- the areas where homes are intermixed with forests and wildlands. More homes are at risk from wildfire as residential development continues to encroach on forest and wildland areas. Across the majority of states, debris burning is the most frequent human cause of wildfires. These human-caused fires can be prevented and the excessive cost of fire suppression reduced. The first step in wildfire prevention education is to raise awareness of the responsibilities of living in a fire prone environment. Individual and community action can ensure that homes and neighborhoods are prepared for wildfire.

One of the most successful tools for addressing these challenges is the Community Wildfire Protection Plan (CWPP). Through these plans, nearly 4,800 communities across the nation have developed collaborative strategies to reduce their risk from wildfire and restore healthier, more resilient conditions in their surrounding forests. However, with at least 51,612 communities at risk across the United States, there is still much work to be done. This *Community Guide to Preparing and Implementing a Community Wildfire Protection Plan (Community Guide)* is intended to assist CWPP participants by providing innovative strategies, case studies and additional resources to develop, implement, and monitor their CWPPs.

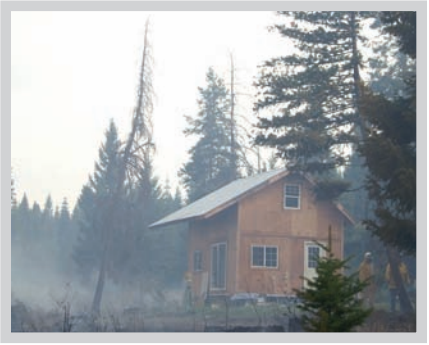
The minimum requirements for a CWPP are defined in HFRA with more detailed guidance provided in the publication *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities. March 2004 (Handbook)*. This landmark legislation clearly supports the role of communities in federal land management planning.

HFRA Requirements for a CWPP

(1) **Collaboration**
(2) **Prioritized Fuel Reduction**
(3) **Measures to reduce Structural Ignitability**

The HFRA requires that three entities mutually agree to the final contents of a CWPP:

- **The applicable city or county government;**
- **The local fire department(s); and**
- **The state entity responsible for forest management**



In addition, this successful model to mitigate wildfire risk has been used in communities without adjacency to federal land. Access both guidance documents at: www.forestsandrangelands.gov/communities.

While moving through the planning and implementation process found in the *Handbook*, CWPP participants have identified a number of lessons learned and areas where they would like more information or advice. In response to this feedback, a group of local, state, federal government and non-governmental partners recommended developing a supplemental guide to the *Handbook*. Specifically, this *Community Guide* follows the three minimum requirements for a CWPP as outlined by HFRA. It also provides additional information on successfully developing, implementing and monitoring a CWPP.

The CWPP collaborative process is effective in improving coordination and communication between emergency response agencies and the community. Spending an adequate amount of time developing a CWPP can help clarify and refine priorities to protect life, property, infrastructure, and valued resources. This process can lead communities through critical discussions about private and public land management, as well as identifying opportunities for fuels reduction within a designated wildland-urban interface boundary.

Homeowners, community leaders, and agency representatives alike can use the resources and insights provided in this *Community Guide* to strengthen CWPPs and foster opportunities to share experiences with others who may be working through similar challenges.

This *Community Guide* is organized in six sections:

1. **Introduction**
2. **Effective Collaboration in Preparing and Implementing a CWPP**
3. **Reducing Structural Ignitability and Strengthening Community Fire Preparedness**
4. **Identifying and Prioritizing Fuels Treatment and Restoration Projects**
5. **Monitoring and Evaluation**
6. **Links and Resources**

The goal of protecting communities and natural resources from wildfire cannot be accomplished by any one person or entity. We must work together to identify and pursue a pathway to success. We hope that this new *Community Guide*, along with the original *CWPP Handbook,* will aid you in finding solutions that work in your community.

Effective Collaboration in Preparing and Implementing a CWPP

Collaboration is the process through which a CWPP is developed and implemented. This section explains what collaboration is, why it is important in the context of a CWPP, and how to have a successful collaborative process.

Collaboration and the Collaborative Process

"Collaboration" is simply people working together to address a shared problem that no one of them could effectively resolve alone. Each participant brings to the effort knowledge, skills, ideas, and resources. The more inclusive the group and the greater the diversity of interests involved, the more likely it is to be representative of the community as a whole and to find broadly acceptable, mutually agreeable solutions.

Elements of Successful Collaboration in Community Wildfire Protection Planning

- ***Broad participation***. A rigorous outreach effort should be made. Potential participants include property owners, local and state governments, tribes, fire and emergency services departments, public land management agencies, forest industry groups, forestry contractors and workers, insurance companies, environmental organizations, community-based forestry groups/collaboratives, watershed councils and other non-government organizations, academics, scientists, and other interested individuals. Including social service agencies helps ensure that the concerns of low-income and special needs populations are addressed. Participants should serve as liaisons between the collaborative group and the interests they represent and, when appropriate, advocate within their constituencies for the CWPP action plan.

- ***A fair, equitable process***. A good collaborative process is open, transparent, accessible, and civil. All participants' ideas and values are respected. The collaborative group has clearly articulated and achievable goals, agreed-upon ground rules for meetings and a process for making decisions. Participants honor the commitments they make to the group.

- ***Well understood, reasonable expectations***. Participants need to thoroughly discuss and reach agreement upon the outcomes they expect from the CWPP process. These should be captured in a concise written statement that can be shared with others and be periodically reviewed to ensure that the process is staying on track.

- ***Multiple avenues for participation***. Collaboration should continue throughout the CWPP process, including the assessment of existing conditions, identification of issues and concerns, delineation of the WUI, identification and prioritization of action items, inventory of resources, development of an action plan, plan implementation, monitoring, and periodic plan reviews and updates. While the work of the broadly representative collaborative group is key to the process, there should be

additional ways to involve the public -- getting their input, increasing their knowledge of wildfire protection needs, and encouraging their involvement in CWPP implementation or monitoring. The community should receive regular updates on CWPP activities.

- ***Commitment to the process***. HFRA specifies that the relevant local government, fire department, and state forest management agency must mutually agree on the content of the CWPP. Those decision-makers need to stay actively engaged throughout the collaborative process, and the other participants need to know what the collaborative group's "decision space" is -- how much weight its recommendations will carry with the decision-makers. Developing a charter for the collaborative group and/or informal agreements or a Memorandum of Understanding among participants can be useful (See example MOU at: http://www.co.josephine.or.us/SectionIndex.asp?SectionID=158.)

Why Collaborate?

The use of a collaborative process is one of the requirements that Congress established for a CWPP. Developing and adopting a CWPP opens the door to significant local community benefits, including being able to: 1) define and set the boundaries of the community's WUI; 2) identify and prioritize areas for hazardous fuel-reduction treatments on USFS and DOI lands in the WUI; 3) recommend the types and methods of treatment to be used; and 4) influence how federal funds for projects on non-federal WUI lands may be obtained.

Additionally, the collaboration should stimulate or strengthen local efforts to reduce structural ignitability, enhance emergency management and communication, and foster public education and action to reduce wildfire risk to life and property. Perhaps most importantly, collaborative processes help build trust and good working relationships among the participants. Effective collaboration ensures that all bases are covered in the planning process, that potential problems or roadblocks are identified and dealt with, and that good use is made of available time and money. It builds strong local support for the CWPP.

Getting and Keeping People Involved

• ***Organize collaboratively***. Generally one or more of the HFRA-specified key CWPP decision-makers – local government, fire district, or state forestry agency – will take the lead, but any individual or organization with time, interest, and good community credibility can do it. Even in the initial planning stage, however, diversity is important and the participation of key stakeholders essential. Once the full collaborative group is assembled it can look at whether the initial leadership and administrative support arrangements are adequate or whether some changes may be needed to better facilitate the work of the group long term.

• ***Do intensive outreach***. In recruiting participants, both broad and targeted outreach strategies are needed. Articles in the newspaper, radio or TV coverage, mailed notices of meetings, and similar mass recruitment methods

Opportunities for Tribes to engage in CWPP planning and implementation

Many tribes have wildfire prevention plans in place, and the Bureau of Indian Affairs has adapted criteria for the development of prevention plans that meet the criteria of a CWPP even though tribes are not required to develop a CWPP. Engaging in a collaborative fire-planning process can provide significant benefits for the tribe by strengthening relationships with neighboring landowners, fire districts, and local, state, and federal agencies; encouraging the use of compatible prevention and restoration treatments on both tribal and non-tribal lands; and providing additional opportunities to influence locations and priorities for related treatments on federal lands. Broad participation in CWPP planning:

- Creates among tribal members a sense of ownership in the planning process and its successful implementation, which may result in them taking greater responsibility for reducing wildfire risk.
- Brings local knowledge and concerns into the process, resulting in a more responsive, accurate plan that takes into account the tribe's cultural concerns and practices.
- Facilitates information sharing and education, increasing knowledge among tribal members about the role of fire and strategies to reduce wildfire risk.
- Increases awareness among fire managers about tribal members' values and concerns, and helps identify ways that fire management can provide opportunities for cultural protection and economic development.

will attract some people, but the most effective approach is a personal one. A phone call or face-to-face meeting can help convince an invitee that s/he has much both to contribute and gain in the CWPP process.

• ***Include non-traditional stakeholders***. Those with an interest in community fire protection may include low-income, elderly and disabled citizens, youth, tribes, or other underserved populations. Some of these stakeholders may require extra assistance in preparing for, responding to, or recovering from a disaster. Others may offer innovative strategies to assist in community planning based on cultural knowledge or community history.

• ***Focus on the local importance of a CWPP***. People are more likely to get involved if they realize the CWPP effort involves setting community priorities and addressing matters that personally concern them – defining the boundaries of the WUI, preparing their homes in residential areas, and conducting fuels reduction treatments and restoring ecosystem health on nearby public lands. Some may not get interested until the CWPP has been adopted, so continued outreach is needed to engage them in implementation when the time comes.

• ***Make the collaborative process user friendly***. For some people, involvement in the CWPP process will be part of their regular jobs, but for many it will be a volunteer effort that entails a significant commitment of scarce free time. Making the process more accessible to those volunteers (whose participation is essential) generally involves holding meetings at times (frequently evenings or weekends) and places convenient for them, and may include other accommodations such as offering refreshments, child care services or paying mileage costs. Participants' time needs to be used productively. Meetings should start and end on time and agendas should be followed.

• ***Encourage mutual learning***. Because collaborative participants bring various types and levels of knowledge and experience to the process, a base of common understanding needs to be built. Using a combination of field tours, expert presentations, written materials, maps, and group discussions encourages mutual learning and helps people get a firm grasp on relevant issues and options. All opinions and ideas should be given respectful attention, and all group discussions should be civil.

• ***Take the process to the people***. Because most community members will not attend all the CWPP collaborative group's meetings, it is important to provide additional venues for them to get information about the CWPP and provide input on their concerns and priorities. Some possibilities are public meetings or open houses throughout the planning area; field tours of proposed treatment areas; and presentations at gatherings such as homeowners' association meetings, watershed council events, or Chamber of Commerce luncheons. Going door-to-door in high priority WUI areas is a labor-intensive, but very effective approach.

• ***Help participants make a difference.*** To alleviate any concerns about how seriously the collaborative group's recommendations will be taken by decision makers, the local government, fire department(s), and state land management agency need to be actively involved in the collaborative process. Some decision makers may be willing to agree in advance to adopt the collaboratively

developed plan, generally with the provision that it meet any applicable legal requirements and be financially and technically feasible to implement.

• ***Foster long-term community involvement.*** Continued participation by the CWPP collaborative group and other community members is essential to implementation. Starting a Firewise Communities/USA program is an excellent way to motivate and support voluntary citizen efforts in neighborhoods or small communities to reduce fuels and prepare homes for wildfire. Organizing neighborhood Hazardous Fuels Reduction Days with free chipping or hauling services can encourage homeowners to work together to reduce fuels that endanger not just their homes, but also their neighbors. Establishing a grant program providing cost-share payments for fuels reduction on private property can be a powerful motivator. The collaborative group may initiate or facilitate the community collaboration required for federal fuels or restoration projects that use the stewardship contracting mechanism, which allows any revenues generated to be retained and used for additional needed restoration work.

Reducing Structural Ignitability and Strengthening Community Fire Preparedness

The Healthy Forests Restoration Act requires a CWPP to recommend measures to reduce structural ignitability throughout the community. This section provides strategies to help identify and implement regulatory and non-regulatory approaches to reduce structural ignitability.

A community approach to reduce structural ignitability and overall community vulnerability depends on citizens to engage in fuels reduction efforts around the home and reduce the ignitability of the components of the home. The CWPP should include an approach that begins with public education and outreach to residents about how homes ignite and how to reduce ignition potential, and moves toward action in enabling property owners to modify their homes and surrounding landscapes most effectively. During extreme wildland-urban fires homes ignite in two principal ways: 1) directly from flame heating and, 2) from direct firebrand ignition (burning ember spot ignitions). If a homeowner modifies the home itself and its immediate surroundings, i.e., the home ignition zone (Cohen, 2001), the home is much less likely to ignite during a wildfire, and thus has a much greater chance of surviving a wildfire.

Individual Responsibility

Individual responsibility is paramount in reducing structural ignitability. Fire science research has demonstrated that ignition potential of structures, including homes, is minimized by modifying the home itself and the area within 100 to 200 feet around the home. A home should be examined for its ignition vulnerabilities to firebrands and flames. Firebrand ignition factors include structure locations of firebrand accumulations on flammable surfaces and unscreened openings allowing firebrand entry. Vulnerabilities to flames depend on the potential for any flame contact with the structure and preventing the occurrence of large flames of high-intensity fires to burn within 100 feet of a home including structures adjacent to a home. (Cohen, 2008).

Homeowners have control over the structural components of their homes and the "home ignition zone."The effectiveness of fire suppression/ protection is subordinate to the individual's responsibility for ignition resistance of their home. Replacing flammable or highly ignitable components of the home and removing fuels from around the home minimizes the ignition potential of the home. A model for engaging community residents on a neighborhood or subdivision basis can be found at www.firewise.org/usa, the national Firewise Communities/USA Recognition Program. Firewise communities are educated about how houses ignite, they provide risk assessments to homeowners, they invest in fuel-reduction projects annually, and they celebrate their successes, building community enthusiasm for fire safety. Education efforts should target homeowners, contractors, realtors and insurance companies emphasizing the homeowners' responsibility to protect their homes.

Most Effective Changes to Home Ignition Zone

- Class A Roofs - Any roof covering that does not self-sustain an ignition and spread fire is an appropriate 'non-ignitable' roof covering
- Screen openings to prevent ember intrusion
- Install non-flammable siding
- Install double-paned windows
- Reduce fuels around structures
- Maintain vegetation modifications

Firewise Communities/USA Standards

1. Perform a community assessment and create a plan
2. Sponsor a Firewise Task Force or Committee
3. Hold a Firewise Day
4. Invest a minimum $2/per capita annually in local Firewise projects
5. Document actions annually

Fire Response

Fire response is a critical component of the community fire protection system. Part of the CWPP process is to assess the readiness of the local fire agencies to meet a wildfire challenge. It is imperative that the community understand that the fire department alone cannot protect and save everyone's property from loss. The first issue of concern is the fire department's training, equipment, response capabilities and limitations.These should meet recognized national standards and the fire department should be adequately trained and equipped to respond to and control the locally established target standard for all wildfires. For example, they may set as their goal controlling 95 percent of all fires at five acres or smaller. The fire departments should participate in a mutual aid system and be able to communicate/coordinate with assisting fire departments and aircraft. Consider if the fire departments have the ability to increase staffing and resources in the event of adverse wildfire predictions. Use Community Emergency Response Teams (CERT) to train community members in disaster response skills. Communication between the fire department and the community during a wildfire is critical. Fire departments and communities should have a mechanism in place to issue evacuation orders and routes to safe zones, or to advise sheltering in place. All communities should have evacuation plans in place, including plans to assist those with special needs.

Regulatory Framework for Reducing Structural Ignitability

Local governments often have a network of regulations relating to land use and development. This framework begins with goal statements of a Growth Management or Comprehensive Plan, and is administered through regulatory tools such as: zoning ordinances, development standards, building codes, and fire codes. Every element of this regulatory framework provides an opportunity to regulate wildfire hazards. At the subdivision level Covenants, Conditions and Restrictions (CC&Rs) can be enforced in both new and established subdivisions. Codes relating to defensible space should be enforceable not just at the time a building permit is issued, but also as the structure is maintained over time. Many examples of ordinances can be found on The National Database of State and Local Wildfire Mitigation Programs, www.wildfireprograms.usda.gov. State forestry agencies may also recommend model ordinances suitable for adoption at the community level.

Zoning Regulations

Local zoning ordinances, designed to control land use, can be adapted to address wildfire hazard by adding a Wildfire Hazard Overlay District. The district is determined by the risk assessment completed for the CWPP. Special restrictions exist within the wildfire hazard district. Many zoning ordinances require a Fuel Modification Plan to address fire hazard at the landscape scale, and reduce risk on the site before development. Zoning modifications in the wildfire hazard district may require non-flammable building components, larger lots, defensible space and reduced housing densities. Maintenance of vegetative clearances may be required by CC&Rs and is the responsibility of the homeowners' association and individual

"Leave Early or Stay and Defend" or "Shelter-in-Place"

- **Shelter In Place vs. Evacuation:** Know the difference and prepare for both
- **Reduce structural ignitability:** Helps the firefighters and may save lives
- **Home Ignition Zone (HIZ):** Reduce flammable and combustible material within the perimeter of the HIZ
- **Support the Fire Department:** Help them help the community! Create defensible space

homeowners. Some states have adopted statewide zoning of areas identified as high wildfire hazard.

Development Standards

Development Standards in WUI areas reduce community vulnerability by addressing public safety issues before construction. Development standards or subdivision regulations set out design criteria that define adequate road lengths, widths, slopes and clearances, fuel breaks, distances between structures and water and electrical supplies. In difficult to evacuate areas, development standards can create "Leave Early or Stay and Defend" subdivisions (http://ww.rfs.nsw.gov.au). All houses in the subdivision must meet the building code standards, and the neighborhood as a whole must meet water supply, road and fuel break standards. For model development standards, see Rancho Santa Fe Development Guidelines at http://www.rsf-fire.org/education/programs/adult_shelterinplace.asp. Currently the National Wildland Fire Coordinating Group, Wildland Urban Interface Working Team is tasked with evaluating alternatives to evacuation including Shelter In Place. http://www.nwcg.gov/teams/wuiwt

**It is recommended if your community is interested in these alternatives, please contact and coordinate with your local fire service.*

Building Codes and Fire Codes

The goal of building and fire codes specific to WUI areas is to establish minimum standards for materials and material assemblies to provide a reasonable level of exterior wildfire exposure protection. Buildings should be designed to resist the intrusion of flame or burning embers projected by a wildfire, and the building components should have passed rigorous flammability testing standards. California enacted ignition-resistant building and fire codes, see http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php.

Model WUI Fire Codes

Model fire codes which combine many of the attributes all of the above ordinances are a good choice for communities.These ordinances reference a Wildfire Hazard Zone on a map and enact regulations for development within that zone. National models for minimum building and design standards include the International Wildland-Urban Interface Code, (available for purchase at www.iccsafe.org/safety/wildfire), National Fire Protection Association (NFPA) 1144 Standard for Reducing Structure Ignition Hazards from Wildland Fire, and NFPA 1141 Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas (www.nfpa.org). These minimum standards address ignition-resistant construction requirements, vegetation clearances around buildings, access to structures, roads, site addresses, and water supply for firefighting; they may be adopted at the state level or for use in county or municipal level regulation.

Community Wildfire Planning Goals

All individual homes should be built with the following conditions, and defensible space must be maintained year-round with annual landscape inspections:

- **Ignition resistant materials**
- **Protected eaves, 1/8" screening mesh on eave and gable venting**
- **Residential fire sprinklers**
- **100-foot defensible space**
- **Class "A" non-combustible roof assembly**
- **Dual pane or tempered glass windows**
- **Chimneys with spark arrestors 1/2 inch screening**

The community as a whole has:

- **Adequate roadway and driveway widths**
- **Adequate water supply and flow for firefighting**
- **Vegetation-modification zones**

http://www.rsf-fire.org

Structural Ignitability Case Study 1:

Reducing structural ignitability through community planning and Firewise Communities/USA

Wynward Pointe and Keowee Key, SC. In South Carolina approximately 45 percent of all wildfires are escapes from debris burning. The Fire Chief of Keowee Fire District observed one home that burned when a debris burn escaped. The fire moved from the debris pile through dry grass to pine straw mulch by the garage where an evergreen was planted. The tree ignited, melting the vinyl siding, and carrying fire into the attic. The home was lost. The Chief noted other problems within the community: limited access, tight driveways with low branches and surrounding fuels, lack of defensible space and poor signage. The Chief and South Carolina Forestry Commission initiated a Firewise Communities/USA program. Through Firewise, they raised awareness and motivated the residents to reduce fuels around their homes and create a more fire-safe environment. In conjunction with becoming recognized Firewise Communities, Wynward Pointe and Keowee Key created CWPPs, see http://www.state.sc.us/forest/wyncwpp.pdf. These communities credit their success to the Fire Chief who was the "spark plug" to get things rolling, and the CWPP, which helped them define goals and objectives, identify and prioritize fuels mitigation projects, and maintain communication with the community.

Structural Ignitability Case Study 2:

Increasing community resilience through planning, development, and education

Lehigh Acres, FL. Lehigh Acres is an unincorporated community where homes are intermixed with a palmetto/gallberry understory and a canopy of pine and melaleuca, a highly flammable exotic tree. In 2006, 16 homes in Lehigh Acres were lost to wildfire due to fuels close to homes, and combustibles on roofs. Following this wildfire, the residents joined with Florida Division of Forestry, Lehigh Fire Department, and other partners to develop a CWPP, http://www.fldof.com/publications/fire_pdfs/lehigh_cwpp_complete.pdf. The CWPP identified many problems, including: excessive fuel accumulations near homes and on undeveloped lots, a need for strategic fire breaks, a need for Firewise education, a need to increase fire department ICS capacity through training, and county development codes that need to be changed. Since developing the CWPP, residents have met to discuss how to educate homeowners to reduce home losses. Human-caused wildfires have been reduced by 40 percent. The fire department hired a public information officer, the county commissioners provided $650,000 for fuel reduction work, and the Lehigh Fire Department is upgrading its ICS command training. The CWPP partners meet regularly to evaluate progress and update their goals.

Identifying and Prioritizing Fuels Treatment and Restoration Projects

The HFRA requires a CWPP to identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect at-risk communities and essential infrastructure. The process of identifying and prioritizing fuels treatment projects on public and private lands requires the collective input, knowledge, and resources of all project participants, and this collaboration is the key step leading to on-the-ground activities that reduce the risk of catastrophic wildfire. This section includes strategies and recommendations for CWPP groups to develop risk assessments and identify, prioritize, and implement fuels projects on public and private lands.

Strategies for Assessing Risks to Communities and Ecosystems

- ***Utilize agency partners.*** Seek out and take advantage of the data analysis, risk assessment and mapping capabilities available from governmental partners. As funding, equipment, and skills may be limited within the community, local agency (federal, state, tribal, and municipal) partners can be a great resource for developing Geographic Information System (GIS) layers and printed maps.
- ***Think multi-jurisdictionally.*** When identifying high-risk areas, look beyond ownership boundaries. Often high-risk areas encompass multiple land ownerships and will require collaboration among diverse partners to achieve CWPP goals.
- ***Consider multiple planning scales.*** Allow for several scales of analysis within the planning process. While many CWPPs are developed at a county scale, identifying and prioritizing projects on the ground may require analysis of data at a finer scale. If possible, budget resources to focus the risk assessment to a workable scale so that specific projects on the ground can be identified.
- ***Know the limitations of the data.*** If data layers are out of date, account for disturbances, new development, and roads that may have occurred since the data were collected. Work with agency partners to acquire the best and most current data available.
- ***Address the needs of all communities in CWPP development.*** CWPP risk assessments consistently include biophysical factors (such as vegetation or ecological conditions) to identify priority fuels reduction projects. It is also important to consider social factors such as "community capacity." Some communities may have a lower capacity to prepare for, respond to, and recover from wildfire events. When developing a community risk assessment, involve community and social services institutions that can help identify and map low-capacity communities. Community capacity coupled with biophysical measures of fire risk can be a valuable tool in identifying communities most at risk to wildfire and the highest priority targets for available financial and human resources. Reference CWPP Guide for low-capacity communities (http://ri.uoregon.edu/programs/CCE/communityfireplanning.html).

Identifying Roles and Responsibilities

When identifying roles, consider immediate needs for developing the initial risk assessment as well as long-term needs for data maintenance and monitoring activities. When a governmental partner or contractor is identified for GIS support, it is important to ensure there is clear understanding of where the data will be housed and how the community CWPP group will have ongoing access to the data and products. Whether existing partners can make a commitment to support GIS needs or not, it could be beneficial for the community to begin building technical knowledge and capacity to address longer-term activities.

Strategies for Identifying, Prioritizing and Implementing Projects

All CWPPs should use a credible risk assessment to identify the community's highest priorities for fuels treatment. These priorities may include actions such as installing defensible space around homes, building strategic fire-breaks near a subdivision, or using mechanical thinning or prescribed fire to reduce fire risks within a watershed. Once the priorities are identified, there are a number of strategies and tools that can improve the effectiveness of project implementation. For example:

- The ability to treat the highest priority areas is often contingent on available resources and community involvement and leadership. Some projects will require grant funds to complete; some may be implemented by state and federal agencies based on input from the CWPP; and others may be defined, developed, and funded by neighborhood groups, or local fire departments. When prioritizing areas for fuels treatment projects, it is useful to identify a variety of projects within highest priority areas on multiple land ownerships. A diverse approach provides CWPP groups with more possibilities and flexibility to get work done on the ground.
- Historic and/or cultural resources may be impacted by proposed treatment projects. State, federal, and tribal agencies may be able to assist with identifying significant cultural and historic resources.
- When identifying and prioritizing fuels reduction projects, it is useful to develop an appropriate timeline and strategy for planning, public engagement, reaching environmental compliance and conducting treatments. A realistic timeline gives local residents and participants true expectations of actions and reduces frustration based on false assumptions of quicker results.

Coordination with federal, state, and local agencies. It is important to ensure effective coordination with governmental entities in the CWPP process, because these agencies bring important expertise and resources to the table. In addition to GIS and mapping expertise, state and federal agencies often have subject matter experts and funding resources available to support mitigation activities identified in a CWPP. Once completed, a CWPP provides statutory incentives for the USFS and DOI to consider the priorities of local communities as they develop and implement forest and rangeland management and hazardous fuels reduction projects. Below are steps for enhancing coordination with state and federal agencies:

- Support agency projects that meet CWPP objectives during public meetings and public review processes.
- Provide agency land and fire management staff with community project information early in the planning process.
- Recognize project funding organizations and partners for their support in meeting CWPP implementation goals. Share news articles and letters and provide partners with photos and success stories from CWPP implementation projects.
- Document and incorporate local agency objectives and priorities when and where possible to meet multiple landscape objectives, such as pre-planning for residential development in the WUI.

Defining Wildland Urban Interface

- According to HFRA, the wildland-urban interface is considered "any area within or adjacent to an at-risk community that is identified in recommendations to the Secretary in a Community Wildfire Protection Plan." Communities have the ability to establish the definition and boundary of a localized WUI. Community-established WUI boundaries can help meet local management needs, can include both public and private land, and can help improve access to funding sources.

- Collaboratively define the WUI and associated boundaries that are effective in meeting treatment objectives and funding strategies.

Neighborhood fuels reduction. In some areas, a priority treatment area may cover several private, rather than governmental, ownerships. A neighborhood fuels reduction project is one method of bringing together private stakeholders to specifically reduce the wildfire threat to an at-risk community. Aspects of a neighborhood fuels project may include:

- **Homeowner education**. Provide information and education on a range of issues from why the area is at risk to wildfire, to preparedness and evacuation measures, as well as fuels reduction recommendations.
- **Creating defensible space.**"Defensible space" is an area between an improved property, e.g. house, barn, etc., and a potential wildfire where the combustibles have been removed or modified to prevent fire from transferring to the structure. Defensible space is a research tested way to increase the probability that a home will survive a wildfire disaster even if the fire suppression services cannot get there. Mitigation and firewise planning is a balancing act between the use of non-combustible building materials, the width of the defensible space surrounding a home, and the fuel management in and around the community. Landowner responsibility for personal fire protection, mitigation activities, and planning all contribute to making firesafe communities. Funding defensible space activities can be a challenge. Local fire departments and state agencies may have funding and resources available to assist homeowners with defensible space activities.
- **Working with large landownerships.** Larger landownerships may consider more comprehensive fuels treatments beyond defensible space, e.g. weed management, watershed protection, and ecosystem enhancement. Communities adjacent to public land will need to coordinate with the public agencies to ensure that fuels reduction happens across ownership boundaries whenever possible.
- **Transportation systems.** It's important that roads and evacuation route treatments are completed on driveways, roads, and other key transportation corridors. A successful neighborhood fuels reduction project such as the one highlighted below, depends on the priorities of local residents, opportunities for funding, conditions of the land, and land ownership patterns.

Community Fuels Reduction Actions

- Conduct home risk assessments
- Develop "prescriptions" for defensible space around homes
- Organize neighborhood clean-up days
- Find funding for cost share/free treatments for residents that need assistance in creating defensible space around their homes
- Organize chipping or slash disposal opportunities
- Identify demonstration houses
- Coordinate firewise gardens
- Identify and implement community or neighborhood fuel breaks

Fuels Reduction Case Study 1:
Creating a Community Fuel Break

Taylor, FL. The Florida Division of Forestry, US Forest Service Osceola National Forest, Baker County Fire Department and the Community of Taylor jointly developed a CWPP in September, 2006, see http://www.fl-dof.com/publications/fire_pdfs/taylor_fl_cwpp_complete.pdf. Taylor is a small rural community surrounded by hundreds of thousands of acres of federal, state and private wildlands and has been threatened by many wildfires in the past. The CWPP called for a 25- to 30-foot-wide perimeter control line around the town. The control line was created in January, 2007. Four months later, the control line was tested by the Bugaboo wildfire. Firefighters set backfires along the Taylor control line to guide the fire around the community. No structures were lost in Taylor. Success was due to the foresight of the CWPP planners in creating the fuel break and team-building from the CWPP process. When the CWPP committee created plans as a cohesive group, they set the stage for the wildfire prevention and suppression activities to run smoothly.

Ecological restoration. Although CWPPs often focus on actions needed to reduce risks to lives and property from wildfire, the development of a CWPP provides a strategic opportunity for the community to consider the ecological needs of the forest as well. In fact, restoring the ecological resilience of a forest can be a very effective strategy for reducing the overall risk of wildfire to the community and its infrastructure. Below are several recommendations for integrating ecological restoration opportunities into a CWPP.

- When convening decision-makers and other stakeholders to develop the CWPP, engage all relevant land management agencies and institutions, and specifically ask that they bring their ecological expertise, data, and information to the table.
- When developing a community base map and identifying the initial boundary of the WUI, ask agency, academic and other experts to help assess and consider how ecological restoration needs will impact the area of focus.
- In the CWPP risk assessment, use fire, fuel mapping, and other data or tools to analyze the restoration needs of the predominant forested ecosystems in and around the community.
- In the identification of fuels treatment projects, give priority to fuels treatments that can accomplish ecological restoration as well as community protection goals.
- When designing and implementing fuels treatment projects, consider employing "fire use" as a tool to achieve treatment objectives. Fire use includes the combination of wildland fire and prescribed fire applications to meet natural resource objectives. Wildland fire use is the management of naturally ignited wildland fires to accomplish desired outcomes, while prescribed fires are any fires ignited by management actions to meet specific objectives. Wildland fire use is a tool that can be used alone or in combination with mechanical thinning of trees to achieve ecological benefits in addition to risk reduction.

LANDFIRE

LANDFIRE is a tool that is publicly available and offers consistent vegetation/fuels data to support CWPP analysis, planning, and related management activities. LANDFIRE is creating spatial data layers that include: all layers required to run fire modeling applications such as FARSITE and FlamMap, existing vegetation type, canopy height, biophysical setting, environmental site potential, fire regime condition class, and fire effects layers. Please visit the LANDFIRE website for more detailed information on use of LANDFIRE data, training opportunities, and technical assistance. http://www.landfire.gov/index.php

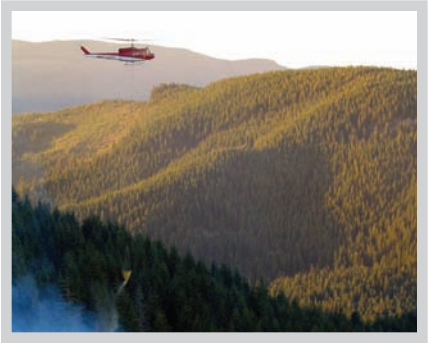
Stewardship contracting. Stewardship end result contracting authorizes the USFS and DOI to negotiate contracts of up to 10 years' duration, to reduce management costs by exchanging goods for services, and to select local contractors on a best value basis. Stewardship contracting can assist community and agency partners involved in a CWPP to implement high priority fuels reduction projects on public and private lands. Stewardship contracting fosters a public/private partnership to restore forest and rangeland health by giving those who undertake the contract the ability to invest in equipment, infrastructure, and capacity building. Stewardship contracting can be successful and sustainable where communities are able to capitalize on the value of restoration byproducts such as small diameter timber, slash, or other forest biomass. Done well, stewardship contracting promotes healthy forests, creates local economic benefit, and allows the value of the material being removed to help pay for the fuels reduction activities. The collaborative process required to develop and implement a CWPP can serve as a foundation for the partnerships needed to develop and implement stewardship contracts. More information on stewardship contracting can be found at: http://www.fs.fed.us/forestmanagement/projects/stewardship/index.shtml.

Woody biomass utilization. Reducing hazardous fuels on public and private land can produce sizeable quantities of small diameter woody biomass. Utilization of woody biomass can help reduce or offset treatment costs and has the potential to support sustainable local industries while improving forest health. Become familiar with local forest-based industry partners that have an interest in biomass utilization. Invite these partners and community associations to become involved in the CWPP process. Work with state and federal partners to identify estimates of biomass supply and access funding opportunities designed to encourage the utilization of woody biomass. Consider establishing green waste disposal, treatment or processing sites where landowners engaged in defensible space efforts can dispose of wood slash materials.

CWPPs play a role in collaborative federal land management planning

The main purpose for the Healthy Forest Restoration Act was to reduce wildfire risk to communities, municipal water supplies, and other at-risk lands through a collaborative process of planning, prioritizing and implementing hazardous fuels reduction projects. Although the CWPP is not a federal planning document, the CWPP-determined WUI boundary can and should be used as part of the development phase of a Land and Resource Management Plan/Land Use Plan (LUP) and a Fire Management Plan (FMP) for federal lands.

Federal agencies want to work with the public to help maintain, protect, and improve values, and your involvement will assist in these actions. It can be easy to identify where CWPP efforts align with federal processes and policies and the role they may have in developing long term management strategies, if you understand the processes that federal land management agencies are required to follow.



Land Use Plans (LUP's)[1] are designed to project present and future land uses and identify management practices needed to achieve desired conditions. Planning provides Federal agencies with the opportunity to collaborate with the public, other agencies, tribes, and governmental and non-governmental stakeholders to develop a common vision for how the public lands should be used and protected. Developed with extensive community involvement, LUP's are prepared in conjunction with an analysis of environmental impacts using a collaborative approach that considers competing values and uses, and weighs long- and short-term benefits. As LUP's are updated, they may incorporate the collaboratively developed CWPP WUI boundary. LUP's are used by managers and the public to accomplish the following: allocate resources and determine appropriate and multiple uses for the public lands, develop a strategy to manage and protect resources, and set up systems to monitor and evaluate the status of resources and effectiveness of management practices over time.

Fire Management Plans (FMP's)[2] While the fire management planning requirements may differ among agencies, a common purpose of a fire management plan is to aid managers in making informed decisions and can be an opportunity to incorporate CWPP-identified project areas. The first objective in all fire planning and actions is firefighter and public safety.

All fire management plans provide an easy reference for firefighters and managers so that they can easily find information such as objectives to meet land use planning direction, resources to be protected, hazardous fuels and vegetation conditions, safety considerations such as mines and power corridors, and WUI boundaries. The FMP is supplemented by operations plans, including but not limited to preparedness plans, preplanned dispatch plans, prescribed fire burn plans, CWPPs, and prevention plans. FMPs assure that wildland fire management goals are coordinated and incorporate a community perspective.

For DOI: FMP's are required to define hazardous fuel management programs and priorities in addition to planning for initial response to unplanned ignitions. These plans may also include fire management strategies, tactics and fuels treatment plans.

For USDA, Forest Service: Strategic guidance for FMP's come from the LUP. Hazardous fuels reduction treatment projects are planned as individual projects outside of the scope of the FMP. New planning direction will be coming out in draft FSH 1909.12, Chapter 10 and the new Planning & Fire Technical Guide in the Technical Guides Section. (Summer, 2008)

[1]Department of the Interior, Departmental Manual, Part 112: Policy, Management and Budget; Chapter 9: Office of Planning and Performance Management.
[2]Interagency Standards for Fire and Fire Aviation Operations 2008, NFES 2724; Produced by the Standards for Fire and Fire Aviation Operations Task Group, National Interagency Fire Center, Boise, ID. This document is posted at http://www.nifc.gov/policies/guides.htm

Monitoring and Evaluation

Communities across the country have invested countless hours and significant funds to develop CWPPs. Communities now have an opportunity to consider how these plans have helped reduce their wildfire risk, while also meeting state and national goals for wildfire risk reduction. Effective monitoring and evaluation of wildfire planning efforts at the local, state and national level will provide important opportunities to evaluate the overall strategy of CWPPs in reducing wildfire risk and improving planning processes. This section of the Community Guide is intended to encourage and present strategies to conduct monitoring and evaluation of CWPPs.

A CWPP does not end when it is adopted; a thorough process should involve a continuous cycle of collaborative planning, implementation, monitoring and adapting strategies based on lessons learned. As communities learn from successes and challenges during the development and implementation of their CWPP, stakeholders may identify new actions, propose a shift in how decisions are made or actions are accomplished, and evaluate the resources necessary for successful CWPP implementation.

What goes into monitoring and evaluating a CWPP locally?

- Only monitor what matters! (Communities may lack resources to engage in a long or complex monitoring process.) Community partners should identify key goals and objectives, and make decisions to monitor what is most important to the long-term sustainability of their CWPP.
- Track accomplishments and identify the extent to which CWPP goals have been met.
- Examine collaborative relationships and their contributions to CWPP implementation, including existing participants and potential new partners.
- Identify actions and priority fuels reduction projects that have not been implemented, and why; set a course for future actions and update the plan.

What goes into monitoring CWPPs at a national level?

CWPPs are part of a national effort to improve the health of our nation's forests and reduce wildfire risk to communities. Stakeholder investments of time and money must show results in a way that justifies that investment. Decision-makers at a national level (including congressional representatives and agency leaders with the USFS, DOI, Federal Emergency Management Agency (FEMA), and others) are not often able to see the local successes gained from a CWPP and its projects. Data collected from monitoring and evaluation of local CWPPs can also be used to evaluate national goals for wildfire risk reduction, such as those included in the HFRA and the Revised 10-Year Implementation Plan (10-YIP)[3]. This can help ensure that funding and agency efforts are geared toward successful approaches.

[3]A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Strategy Implementation Plan (December 2006). http://www.forestsandrangelands.gov/plan/documents/10-YearStrategyFinal_Dec2006.pdf.

National level guidance for monitoring and evaluation measures related to CWPPs can be found in the 10-YIP, which includes specific performance measures that are applicable to CWPPs. Performance measures are used to demonstrate results and have measurable indicators of whether or not a goal has been addressed. Performance measures set the stage for both agency accountability and future agency budget processes. The performance measures included in the 10-YIP that are specific to CWPPs include:

- Number and percent of communities-at-risk covered by a CWPP or equivalent that are reducing their risk from wildland fire.
- Percent of at-risk communities that report increased local suppression capacity.
- Number of green tons and/or volume of woody biomass from fuel reduction and restoration made available for utilization through permits, contracts, grants, agreements, or equivalent.
- Number and percent of WUI acres treated that are identified in CWPPs or other applicable collaboratively developed plans, and the number and percent of non-WUI acres treated that are identified through collaboration consistent with the 10-YIP.
- Number and percent of acres treated, through collaboration consistent with the 10-YIP, identified by treatment category (i.e., prescribed fire, mechanical, and wildland fire use).

A framework for monitoring and evaluating CWPP outcomes

Perhaps the most critical aspect of a monitoring and evaluation process is to identify the impact a CWPP has had in a community. A 2008 publication, CWPP Evaluation Guide, provides a step-by-step process to lead communities through a process to evaluate how well they have addressed the goals and objectives of their CWPPs and modify actions for the future. Completing this evaluation will help communities celebrate successes, identify gaps, and update their CWPPs.
[http://ri.uoregon.edu/programs/CCE/communityfireplanning.html.]

The Evaluation Guide recommends collaborative strategies to bring partners together to conduct the evaluation, gather relevant data, and write the evaluation report. The Evaluation Guide provides suggestions on how to evaluate six elements of a CWPP and includes strategies to help communities identify key outcomes, changes over time, and other lessons learned. The Evaluation Guide also suggests strategies for reflecting on lessons learned during the evaluation process, adapting actions for the future, and updating CWPPs.

Table 1 is a framework that can help a community in monitoring and evaluating its CWPP. The table lists six CWPP goals and a series of questions to help communities monitor and evaluate accomplishments, challenges, and how well goals have been met. Communities and agencies may want to work together to ensure that, at a minimum, data are collected to evaluate the 10-YIP measures to gain consistency in the type of data collected and reported on. Some communities may lack the resources to conduct a full-scale evaluation and may opt to monitor and evaluate selected goals or measures.

How are CWPPs addressing national goals for reducing wildfire risk?

As a community develops and implements its CWPP, there are key questions that can be used to help determine the effectiveness of its plan. In order to help track accomplishments and report on outcomes, communities can collect data to respond to national goals, as well as local goals. Like local planning processes, national monitoring and evaluation strategies can and should be adapted and improved as we learn from wildfire planning efforts. Table 1 includes specific questions and measures to help communities collect data that will evaluate local goals for CWPPs. Some of these measures can also help in evaluating national goals, including those stated in the 10-YIP and the Healthy Forests Restoration Act.

Tips for Using the Evaluation Guide Framework

The key to using this framework is to remember that once information has been gathered to answer questions and evaluate how well goals have been addressed, community groups can use the information to update actions and adapt their strategies to better address the CWPP goals. This kind of evaluation can also help a community celebrate their successes once it is clear what all of their accomplishments have been over a given period of time. And for more ideas, visit the full CWPP Evaluation Guide at: http://ri.uoregon.edu/programs/CCE/communityfireplanning.html.

Table 1. Framework for Monitoring and Evaluating a CWPP

Goal	Monitoring and Evaluation Questions	National Measures*
1. Partnerships and Collaboration	1.1. Who has been involved with CWPP development and implementation? How have relationships grown or changed through implementation? What resources did they bring to the table?	
	1.2. How did the fire planning process influence CWPP implementation?	
	1.3. How has the collaborative process assisted in implementing the CWPP and building capacity for the community to reduce wildfire risk?	HFRA
	1.4 Have social service agencies (or groups that might assist low-income and vulnerable populations) partnered on CWPP efforts? If so, how?	
	1.5 Have partners involved in the planning process remained engaged in implementation? Have new partners become involved? How have the relationships established through the CWPP enhanced opportunities to address CWPP goals?	
	1.6 Has CWPP collaboration made a difference or had a positive impact on local organizations, neighborhoods and/or actions?	
2. Risk Assessment	2.1 How has population growth/change and development in your community affected wildfire risk?	
	2.2 If this is a multi-jurisdictional plan, what is the number and percent of communities at risk with a CWPP in the area? Are all communities at risk identified in the CWPP, and are there priority fuels projects identified in the area?	10-YIP
	2.3 Are there new or updated data sources that may change the risk assessment and influence fuels priorities?	
	2.4 How is the risk assessment being used to make decisions about fuels priorities or the designation of the WUI boundary?	10-YIP
	2.5 Has the community enacted a wildfire related ordinance? If so, county, state, or local?	10-YIP
	2.6 What percent of communities at risk are also low-income or have special needs? Have these communities been engaged in reducing wildfire risk?	
3. Reducing Hazardous Fuels	3.1 How many acres have been treated for hazardous fuels reduction on public and private land that were identified as high-priority projects in the CWPP? What percentage of total acres treated does this constitute?	10-YIP and HFRA
	3.2 How many fuels reduction projects have spanned ownership boundaries to include public and private land?	
	3.3 What is the number and percent of residents that have participated in projects and completed defensible space on their land?	

Table 1. Framework for Monitoring and Evaluating a CWPP (continued)

CWPP Goal	Monitoring and Evaluation Questions	National Measures*
3. Reducing Hazardous Fuels (continued)	3.4. Economic development resulting from fuels reduction	10-YIP
	3.5. How many local jobs have resulted because of fuels reduction or restoration activities?	HFRA
	3.6 How many hazardous fuels reduction projects have been implemented in connection with a forest restoration project	
4. Reducing Structural Ignitability	4.1 What kind of resource losses (homes, property, infra-structure, etc.) have occurred from wildfires in the year being evaluated?	
	4.2 Are the current codes and regulations for wildfire hazard adequate? If not, are there efforts to change or update them? Are there action items in the CWPP to develop codes and recommendations?	10-YIP
	4.3. Has the public knowledge and understanding about structural ignitability been increased by strategies adopted in the CWPP? Have homeowners been educated on how to reduce home ignitability, and are they replacing flammable building components with non-flammable materials?	
	4.4 How many Firewise Communities have been recognized? How many citizens, neighborhoods or communities have taken action to increase the resilience of their structure to fire?	10-YIP and HFRA
	4.5 How has the availability and capacity of local fire agencies to respond to wildland and structural fires improved or changed since the CWPP was developed?	10-YIP
5. Education and Outreach	5.1 What kind of public involvement has the CWPP fostered? Examples include public education, household visits, demonstration projects, etc.	
	5.2 Has a change in public awareness about wildfire resulted from the plan?	
	5.3 What kinds of activities have citizens taken to reduce wildfire risk?	
6. Emergency Management	6.1 Is the CWPP integrated within the county or municipal Emergency Operations Plan?	
	6.2 Does the CWPP include an evacuation plan? If yes, has it been tested or implemented since the CWPP adoption?	
	6.3 Is the CWPP aligned with other hazard mitigation plans or efforts?	

** HFRA and the 10-YIP include goals that can be evaluated with measures as part of a local CWPP evaluation process. This table identifies specific measures that relate to outcomes that can be evaluated at a national level and are associated with HFRA or identified within the 10-YIP.*

Ecological Monitoring

A critical outcome related to CWPPs is related to the change in fire behavior, as affected by the number and type of fuels treatments that occur as a result of priorities identified within the CWPP. The HFRA (Section 102(g)(5)) instructs the USFS and DOI to establish a collaborative multiparty monitoring, evaluation, and accountability process when significant interest is expressed in such an approach.[4]

Multiparty monitoring gives communities an opportunity to assess environmental, social, and economic outcomes related to fuels reduction projects. Multiparty monitoring also builds trust and provides an opportunity for residents to learn about fire-adapted ecology. The USFS Collaborative Forest Restoration Program in the Southwest offers a set of guidelines for monitoring community-based forest restoration. Communities engaged in ecological monitoring of hazardous fuels reduction projects can use these guidelines. They provide an overview of the multiparty monitoring process, ecological and socioeconomic goals and indicators, and examples of measures, data sources, and tools that can be used in conducting this kind of monitoring. The CFRP program also developed a series of handbooks to help communities conduct this monitoring. These resources can be downloaded directly at: http://www.fs.fed.us/r3/spf/cfrp/monitoring/index.shtml.

There are also tools used by state and federal agencies to conduct ecological monitoring and monitor maintenance of treated areas. One such program is the Fire Effects Monitoring and Inventory Protocol (FIREMON). FIREMON is an agency-independent plot level sampling system designed to characterize changes in ecosystem attributes over time.(http://frames.nbii.gov/portal/server.pt?open=512&objID=286&&PageID=495&mode=2&in_hi_userid=2&cached=true.)

Other methods for conducting ecological monitoring for fuels reduction projects may include using photo points, modeling changes in fire behavior, and measuring change in fire regime and condition class. There are a wide range of approaches to ecological monitoring; FIREMON and other modeling systems are mostly within federal purview, but community organizations and citizens have many monitoring options available and simple methods like comparing photo points and conducting vegetation surveys that are valuable and important.

[4]The Healthy Forests Initiative and Healthy Forests Restoration Act Interim Field Guide http://www.fs.fed.us/projects/hfi/field-guide/web/page16.php

Monitoring Case Study 1:

Josephine County Integrated Fire Plan

After the 2002 Biscuit Fire, which burned close to 500,000 acres in southwest Oregon and northern California, public and private agencies and organizations throughout Josephine County, Oregon recognized the critical need to better coordinate resources, identify high risk areas, and develop a strategic action plan to reduce risk throughout the county. Partners came together to develop the Josephine County Integrated Fire Plan, (2004). A year later, partners developed a process for conducting an annual review, which has resulted in annual reports and updated action plans for 2005, 2006, and 2007. The annual reports highlight accomplishments, challenges, and priorities for the upcoming year from each of the planning committees, including fuels reduction and risk assessment, education and outreach, emergency management, stewardship contracting, and vulnerable populations.

A unique aspect of the monitoring and evaluation process has been an annual evaluation of collaboration among partners involved with the fire plan. Results from these partner surveys have led to increased participation from new stakeholder groups and focus on strategic issues in a particular year, such as evacuation or funding for fuels reduction projects for vulnerable populations. Most importantly, the collaboration survey provides a time for all fire plan partners to reflect on the role of their agency or organization in implementing the plan and the common goals that partners are trying to accomplish. The annual reports are available online at http://co.josephine.or.us/SectionIndex.asp?SectionID=158.

Monitoring Case Study 2:

Apache Sitgreaves CWPP

The Sitgreaves Communities Wildfire Protection Plan (SCWPP), born out of the ashes of the Rodeo-Chediski Fire, was finalized and agreed to by 18 signatories in 2004. The SCWPP identifies needed fuels reduction forest treatments across jurisdictional boundaries of private lands, the Apache-Sitgreaves National Forests and White Mountain Apache tribal lands. These seamless treatments—comprised of thinning overstory components of the forest structure, breaking up the continuity of the understory fuels, and removing slash and excess vegetation—provide cumulative improvements in fire risk mitigation. Burning slash and ground fuels is done in a prescribed manner on government agency-managed lands and by permit on private lands. Each year, the SCWPP partners develop an annual progress report to evaluate progress, document accomplishments and identify needs for the future. For example, as of 2006, within the CWPP area, 40,964 acres of fuel treatment work have been completed (approximately 13 percent of the high risk acres identified in the plan). The annual report focuses on key issues that remain to be addressed through plan implementation. To review the full annual report, visit: http://ci.pinetoplakeside.az.us/whatsnew/2006_SCWPPUpdate_general.pdf.

Links and Resources

General Resources

- Healthy Forests and Rangelands Website: http://www.forestsandrangelands.gov/Healthy_Forests/index.shtml
- California Fire Alliance - CWPP Resources: http://cafirealliance.org/cwpp
- Firewise website http://firewise.org
  - o Firewise Communities/USA: http://www.firewise.org/usa
- The Healthy Forests Initiative and Healthy Forests Restoration Act: http://www.fs.fed.us/projects/hfi/field-guide/web/page15.php
- International Association of Fire Chief's Leader's Guide for Developing a Community Wildfire Protection Plan: http://www.iafc.org/associations/4685/files/CWPP_rev062005.pdf
- National Database of State and Local Wildfire Mitigation Programs, a source for information on ordinances, www.wildfireprograms.usda.gov
- Tribal Wildfire Resource Guide (2006), Intertribal Timber Council: http://www.itcnet.org/issues_projects/issues/forest_management/reports.html
- United States Forest Service website http://www.usda.gov
- US Department of Interior website http://www.doi.gov/

Collaboration

- The Collaboration Handbook, Red Lodge Clearinghouse: http://rlch.org/content/view/261/49/
- BLM Partnership Web Site: http://www.blm.gov/partnerships/tools.htm
- Ecosystem Management Initiative at the University of Michigan: http://www.snre.umich.edu/ecomgt/collaboration.htm
- Western Collaborative Assistance Network: http://westcanhelp.org/
- Forest Service Partnership Resource Center: http://www.partnershipresourcecenter.org/index.shtml
- Joint Fire Sciences Collaboration and CWPPs: http://jfsp.fortlewis.edu/KTWorkshops.asp
- Joint Fire Sciences Collaboration and fuels resources: http://jfsp.fortlewis.edu/collaboration2.asp
- Rural Voices for Conservation Coalition (Collaboration issue paper): http://www.sustainablenorthwest.org/quick-links/resources/rvcc-issue-papers
- Strategies for assisting low-income and underserved communities develop and implement CWPPs: http://ri.uoregon.edu/programs/CCE/communityfireplanning.html

Reducing Structural Ignitability

- Australian Safe in Place information, http://www.rfs.nsw.gov.au/dsp_content.cfm?CAT_ID=202, and http://www.rfs.nsw.gov.au/dsp_content.cfm?cat_id=515
- California Ignition-Resistant Building and Fire Codes, http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php
- Firewise Guide to Landscape and Construction, booklet, https://www.cmsassociates.com/firewise.nsf/avcatalog?open
- "Colorado, Are You Firewise?" Guide at http://csfs.colostate.edu/library/pdfs/RUFireWise/wholenotebook.pdf
- Firewise Construction and Design Materials, Peter Slack, Colorado State Forest Service, 2000. Guide available at

http://csfs.colostate.edu/library/pdfs/fire/construction_booklet.pdf.

- Wildfire! Preventing Home Ignitions DVD – explains the research of Jack Cohen, USDA Forest Service, on how homes ignite and how to minimize potential for ignition. https://www.cmsassociates.com/fire-wise.nsf/avcatalog?open

Reducing Structural Ignitability: Articles and Publications

- Cohen, Jack, Structural Vulnerability and the Home Ignition Zone: The key to preventing residential fire disasters during extreme wildfire, letter from Jack Cohen to Douglas McDonald, 2/4/08
- Cohen J. 2001. Wildland-urban fire—a different approach. In: Proceedings of the Firefighter Safety Summit, Nov. 6-8, 2001, Missoula, MT. Fairfax, VA: International Association of Wildland Fire.
- Other articles by Jack Cohen: http://www.nps.gov/fire/public/pub_publications.cfm
- ICC, International Wildland-Urban Interface Code 2006, International Code Council, Country Club Hills, IL, 2006
- NFPA 1141, Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas, 2008 edition, National Fire Protection Association, Quincy, MA 2007
- NFPA 1144, Standard for Reducing Structural Ignitions from Wildland Fire, 2008 edition, National Fire Protection Association, Quincy, MA 2007

Fuels Reduction and Restoration Resources

- The National Association of State Foresters Field Guidance for Identifying and Prioritizing Communities at Risk: http://www.stateforesters.org/reports/COMMUNITIESATRISKFG.pdf
- Management Tools for CWPP Implementation: Stewardship Contracting and Biomass Utilization http://ri.uoregon.edu/programs/CCE/communityfireplanning.html
- Woody Biomass Utilization Desk Guide: http://www.forestsandrangelands.gov/Woody_Biomass/documents/biomass_deskguide.pdf
- USDA Forest Service Stewardship Contracting Resource page: http://www.fs.fed.us/forestmanagement/projects/stewardship/index.shtml
- USFS Wildland Fire Use http://www.fs.fed.us/fire/fireuse/wildland_fire_use/use_index.html
- Biomass Producer or Collector Tax Credits (HB2210) http://www.oregon.gov/ENERGY/RENEW/Biomass/TaxCdt_2210.shtml

Monitoring and Evaluation Resources

- Community Wildfire Protection Plan Monitoring and Evaluation Guide: http://ri.uoregon.edu/programs/CCE/communityfireplanning.html
- Firemon: http://www.fire.org
- Multiparty Monitoring Resources
  - Rural Voices for Conservation Coalition – Multiparty Monitoring Issue Paper: http://ri.uoregon.edu/programs/CCE/communityfireplanning.html
  - USDA Forest Service Collaborative Restoration Program – Multiparty Monitoring Guidelines: http://www.fs.fed.us/r3/spf/cfrp/monitoring/index.shtml
  - Red Lodge Clearinghouse: http://www.redlodgeclearinghouse.org/resources/handbook_full.html

COMMUNITY GUIDE to Preparing and Implementing a CWPP

PROJECT PARTNERS:

Communities Committee

forestGUILD

International Fire Chiefs Association

LSU Louisiana State University

National Association of State Foresters

NACO National Association of Counties
The Voice of America's Counties

The Nature Conservancy
Protecting nature. Preserving life.™

Oregon Department of Forestry

RESOURCE INNOVATIONS

Society of American Foresters
Growing better all the time

Sustainable Northwest

WESTERN GOVERNORS' ASSOCIATION

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