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PARTNERS GUIDE

To Preparing and Implementing a CWPP

*An UPDATED Handbook containing additional resources and
information for Wildland – Urban Interface Communities*

CWPP Handbook Update

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Request for comments and participation:

A collaborative group including local, state, and federal agencies and individuals from across the United States is developing this *Partners Guide*. Comments on this paper can be submitted to Ann Walker at ann.m.walker@state.or.us until April 15, 2008. The final paper will be completed by June 2008 and posted to the Healthy Forests and Rangelands website at <http://www.forestsandrangelands.gov/communities/index.shtml>.

We look forward to hearing from you!



HFRA Requirements for a CWPP

The minimum requirements for a CWPP as described in the HFRA are:

- (1) **Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
- (2) **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.
- (3) **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.

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

- The applicable local government (i.e., counties or cities);
- The local fire department(s); and
- The state entity responsible for forest management.

Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities. March 2004. Sponsored By: Communities Committee, National Association of Counties, National Association of State Foresters, Society of American Foresters, Western Governors' Association.

Section 1: Introduction

"We have entered a new age of wildland fires." – Theodore R. Kulongoski, Governor of Oregon, Western Governors, 2008

Several years since the establishment of the National Fire Plan (2000), the Ten Year Comprehensive Strategy for Reducing Wildland Fire Risks to People and the Environment (2001), and the Healthy Forests Restoration Act (HFRA) (2003), issues regarding deteriorating forest health and the need for greater community protection from wildfire are still prominent. Fire suppression costs have exceeded \$1 billion in three recent fire seasons and 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.

One of the most critical 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 a significant amount of work to be done. The minimum requirements for a CWPP are spelled out in the 2003 Healthy Forests Restoration Act (HFRA) with more detailed guidance provided in the Community Wildfire Protection Plan Handbook developed by a team of non-governmental partners including the National Association of State Foresters, the Communities Committee, the Society of American Foresters, and the Western Governors' Association.

As they have moved through the planning and implementation process outlined in the legislation and Handbook, CWPP participants have identified a number of lessons learned and highlighted areas where they would like more information or advice. In response to this feedback, a group of local, state, federal and non-governmental stakeholders recommended in 2006 that a companion piece to the Handbook be developed as one of the updated action items in the Ten Year Comprehensive Strategy and Implementation Plan. This Partner Guide to the CWPP Handbook is intended to address the action items in the revised Ten Year Strategy, while also providing communities across the United States with resources, case studies, and innovative strategies to develop, implement, and revitalize their CWPPs.

CWPP Handbook's Eight-Step Approach

Step One: Convene Decisionmakers

- Form a core team made up of representatives from the appropriate local governments, local fire authority, and state agency responsible for forest management.

Step Two: Involve Federal Agencies

- Identify and engage local representatives of the US Forest Service (USFS) and Bureau of Land Management (BLM).
- Contact and involve other land management agencies as appropriate.

Step Three: Engage Interested Parties

- Contact and encourage active involvement in plan development from a broad range of interested organizations and stakeholders.

Step Four: Establish a Community Base Map

- Work with partners to establish a baseline map of the community that defines the community's Wildland Urban Interface (WUI) and displays inhabited areas at risk, forested areas that contain critical human infrastructure, and forest areas at risk for large-scale fire disturbance.

Step Five: Develop a Community Risk Assessment

- Work with partners to develop a community risk assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other community values at risk; and local preparedness capability.
- Rate the level of risk for each factor and incorporate into the base map as appropriate.

Step Six: Establish Community Priorities and Recommendations

- Use the base map and community risk assessment to facilitate a collaborative community discussion that leads to the identification of local priorities for fuel treatment, reducing structural ignitability, and other issues of interest, such as improving fire response capability.
- Clearly indicate whether priority projects are directly related to protection of communities and essential infrastructure or to reducing wildfire risks to other community values.

Step Seven: Develop an Action Plan and Assessment Strategy

- Consider developing a detailed implementation strategy to accompany the CWPP, as well as a monitoring plan that will ensure its long-term success.

Step Eight: Finalize Community Wildfire Protection Plan

- Finalize the CWPP and communicate the results to community and key partners.

Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities. March 2004. Sponsored By: Communities Committee, National Association of Counties, National Association of State Foresters, Society of American Foresters, Western Governors' Association.

This *Partner Guide* is intended to complement the original CWPP Handbook by highlighting the successful strategies that communities across the United States have used to reduce their risks from wildfire. This companion guide also provides additional tools and information requested by communities to strengthen their efforts to develop, implement or revise their CWPPs.

Specifically, this update provides information on:

- Strategies for collaboration
- Identifying and prioritizing fuels treatment and restoration projects
- Measures to reduce structural ignitability
- Monitoring and evaluating CWPP efforts

The process of developing a CWPP can help a community clarify and refine priorities to protect life, property, infrastructure, and valued resources in the wildland-urban interface. It can also lead community members and agency partners through critical discussions about land management and opportunities for fuels reduction and restoration on public and private land in the surrounding watershed.





A wide range of stakeholders have worked together to compile this document. Whether you are a homeowner, a community member, or an agency representative, we urge you to use the insights provided here to strengthen your own CWPP or share with others who may be finding similar challenges or barriers.

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 *Partner Guide*, along with the original *CWPP Handbook*, will assist you as you find the path that works for you.

Sample timeline for developing and implementing a CWPP

Task	Timeline
Convene partners and establish collaborative process	CWPP Initiation
Develop risk assessment and identify community needs	Phase I
Establish community priorities and recommendations	Phase II
Develop action plan and complete the CWPP	Phase III
Develop an implementation plan and strategies for monitoring and evaluation	CWPP Adoption
Coordinate CWPP implementation	Ongoing
Monitoring and evaluate CWPP efforts: develop annual reports and updated action plans	Implementation Annual

Section 2:

Effective Collaboration in Preparing and Carrying Out a CWPP

Collaboration is a critical piece of CWPP development and implementation. This section provides information what collaboration is and why it is important in the context of CWPP, how to conduct a successful collaborative process, strategies for engaging stakeholders throughout the process, and provides best practices and tools for collaboration.



Collaboration and the Collaborative Process

“Collaboration” is simply people working together to address a shared problem or need. Each participant contributes his or her particular 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. The “collaborative process” is the way the group defines its common objectives, considers the concerns of all participants, and develops an action plan. (See box)

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, watershed councils and other non-government organizations, academics, scientists, and other interested persons. Including social service agencies helps ensure that the concerns of low-income and special needs populations are addressed. No one should be excluded. 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.** The collaborative process must be open, transparent, accessible, and civil. All participants’ ideas and values should be respected. Goals for the process should be clearly articulated and achievable, and the collaborative group should agree upon ground rules for meetings and a process for making decisions. Commitments made must be honored.
- **Multiple Avenues for Participation.** Collaborative involvement is needed in all aspects of the CWPP process – 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 process may focus on meetings of a broadly-representative collaborative group, there should be additional ways to engage the general public -- getting their input, increasing their knowledge of wildfire protection needs, and encouraging their involvement in CWPP implementation activities or on a multiparty monitoring and evaluation team. The community should also 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. Beyond serving as the “core team” of decision makers, those parties need to be actively engaged in the collaborative process, and the other participants need to know how much weight the recommendations of the collaborative group will carry with them. Having a charter for the collaborative group and informal agreements or a Memorandum of Understanding among all CWPP partners (including federal land management agencies and community organizations) can further the buy-in of all participants.

Why Collaborate?

Collaboration is the underlying framework of the 10-Year Comprehensive Strategy because “in order for the [National Fire] Plan to succeed there must be communication, coordination, and cooperation across a great variety of ownership boundaries, administrative jurisdictions and areas of interest.” For the same reason, the use of a collaborative process is one of the three minimum requirements that Congress established for a CWPP. (See Tip Box 1, p.2.) Collaboratively developing and adopting a CWPP opens the door to significant local 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 BLM 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 made available. Additionally, the collaboration should result in strategies for reducing structural vulnerability, enhancing emergency management and communication, and fostering public education and action to reduce risk throughout the community. 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

- **Do intensive outreach.** Use both broad and targeted outreach efforts. Articles in the newspaper, radio or TV coverage, mailed notices of meetings, and similar “mass” recruitment methods will bring some people into the process, but the most effective approach is a personal one – a phone call or face-to-face meeting where the need for and importance of an invitee’s participation is stressed.
- **Focus on the local importance of a CWPP.** People are more likely to get involved if they realize the CWPP effort involves setting priorities and making recommendations or decisions about matters that personally concern them – the boundaries of the WUI, locations and preferred treatments for fuels reduction projects on nearby public lands, creation of defensible space and Firewise conditions in residential areas, and so forth. Some people may not get really interested until the CWPP has been adopted, and continued outreach is needed to engage them in plan 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 work responsibilities, but for many others it will be a volunteer effort that entails a significant commitment of scarce free time or even taking unpaid leave from a job. Making the process more accessible to those volunteers (whose participation is essential to the success of the CWPP) generally involves holding meetings at times (frequently evenings or weekends) and in locations that are convenient for them, and may include other accommodations such as offering child care services or paying mileage costs for those who have to travel long distances to attend. Participants’ time needs to be used productively. Meetings should start and end on time, agendas should be followed, and minutes should be kept to document key decisions and next steps.



- **Encourage mutual learning.** Because collaborative group members 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 other visual aids, and group discussions encourages mutual learning and helps participants 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 the number of people likely to attend regular meetings of the CWPP collaborative group may be limited, it is important to provide additional venues to both provide information about the CWPP and gather input on public concerns and priorities. Some possibilities: scheduling public meetings or “open houses” in various locations around the planning area; conducting field tours of proposed treatment areas; making presentations at community gatherings such as homeowners’ association meetings, a watershed council event, a Chamber of Commerce luncheon, or a community supper. A highly successful, although labor intensive, approach is going door to door to talk with residents in high priority WUI areas.

- **Help partners make a difference!** There may be concerns about whether the collaborative group’s CWPP recommendations will be adopted by the local government, local fire department, and state forest management agency. Their commitment to be actively involved in the collaborative group can help defuse that concern. Some decision makers are willing to go even farther and agree in advance to accept the collaboratively developed plan, generally with the proviso that it meet any applicable legal requirements and be financially and technically feasible to implement.

Opportunities for Tribes to engage in CWPP planning and implementation

Tribes are not required to develop a CWPP. Many tribes have wildfire prevention plans in place, and the BIA has adapted criteria for the development of prevention plans to meet the criteria of a CWPP. However, engaging in a fire-planning process can provide significant benefits for the tribe. Through the development of a tribal wildfire plan, tribes have the opportunity to involve citizens in reducing wildfire risk and build collaborative partnerships with



neighboring landowners, fire districts, and local, state, and federal agencies. Tribes also have an opportunity, through the development of a plan that meets the requirements under the HFRA, to engage in stronger partnerships with adjacent public land owners and jurisdictions on wildfire risk reduction and hazardous fuels reduction activities.

Fire planning presents a unique opportunity for tribes to incorporate a cultural component into a CWPP—an issue that may be overlooked in more mainstream approaches to planning. In relationship to a fire plan, tribal involvement is essential for identifying community needs, prioritizing high-hazard areas, and incorporating community knowledge into the planning process. Collaborating with tribes on a CWPP can lead to significant outcomes, including:

- A sense of ownership among tribal members about the planning process and the implementation and success of the plan. This sense of ownership may result in greater responsibility among tribal members to take action and reduce wildfire risk.
- Local knowledge and concerns that result in a more responsive, and accurate plan. The inclusion of local knowledge provides an opportunity for cultural concerns and practices to be considered.
- Information sharing and education that result in increased knowledge among tribal members about the role of fire and strategies to reduce wildfire risk, as well as increased awareness among fire managers about the values and concerns that tribal members express in the planning process.
- Identification of how fire management efforts may provide opportunities for both cultural and economic development.

Excerpt from the 2006 Tribal Wildfire Resource Guide (2006) Intertribal Timber Council Website. Full text available at: http://www.itcnet.org/issues_projects/issues/forest_management/reports.html.

Best Practices and Tools for Collaboration

There's no one "right" way to collaborate, and each CWPP group will need to adopt a process that works for it. Helpful "how to" guides, case studies, and lessons learned from natural resource-related collaborative efforts across the country can be found through such resources as:

- The Collaboration Handbook, Red Lodge Clearinghouse
<http://rlch.org/content/view/261/49/>
- Ecosystem Management Initiative at the University of Michigan
<<http://www.snre.umich.edu/ecomgt/collaboration.htm>>
- Western Collaborative Assistance Network < <http://westcanhelp.org/>>
- BLM Partnership Web Site <<http://www.blm.gov/partnerships/tools.htm>>
- Forest Service Partnership Resource Center <<http://www.partnershipresourcecenter.org/index.shtml>>
- International Association of Fire Chief's Leader's Guide for Developing a Community Wildfire Protection Plan
<http://csfs.colostate.edu/library/pdfs/cwpp/CWPP_LG.pdf>
- Joint Fire Sciences Collaboration and CWPP Presentation:
<http://jfsp.fortlewis.edu/KTWorkshops.asp>
- Collaboration and fuels resources: <http://jfsp.fortlewis.edu/collaboration2.asp>

- California Fire Alliance - CWPP Resources: <http://cafirealliance.org/cwpp> or www.cafirealliance.org/cwpp/downloads/CWPPBriefingPaper.pdf
- Rural Voices for Conservation Coalition (Collaboration issue paper): <http://www.sustainablenorthwest.org/quick-links/resources/rvcc-issue-papers>

Some of these sources also provide information on available training and technical assistance programs that can assist communities in getting their collaborative processes started.



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Section 3:

Identify and prioritize 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 requires the collective input, knowledge, and resource of all project partners and 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 all lands.

Strategies for Considering Risks to Both Communities and Ecosystems

- **Utilize agency partners.** Evaluate CWPP collaborative group capabilities for developing risk assessments and mapping. As funding, equipment and skills may be limited within the community, utilize local agency (Federal, State, Tribal, and Municipal) partners to help develop Geographic Information System (GIS) layers and printed maps.
- **Think multi-jurisdictionally.** When identifying high risk areas, try to look beyond ownership boundaries. Often high risk areas encompass multiple land ownerships and will require collaboration from diverse partners to achieve CWPP goals.
- **Consider multiple planning scales.** Allow for several scales within the planning process. While many CWPPs are developed at a county scale, identifying and prioritizing projects on the ground may require finer scale data. If possible, budget enough resources to be able to reduce the risk assessment down to a workable scale where specific projects on the ground can be identified.
- **Know the limitations of your data.** If your data layers are dated, account for disturbances, new development, roads, etc. that may have occurred since the data were collected. Work with your 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 to identify priority fuels reduction projects. While there has been much research on the interactions between weather, fuels and fire behavior, less is known about the social factors that contribute to wildfire risk and resilience. Collectively these social factors can be described by the concept of “community capacity”. Broadly defined, community capacity is the ability of a community to adapt and respond to change. 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 Draft CWPP Guide for low-capacity communities*(<http://ri.uoregon.edu/programs/CCE/communityfireplanning.html>).

Identify and prioritize fuels projects on public and private land

The ability to treat the highest priority areas, e.g. community watersheds, areas with high fuel loads, or areas with limited road access is often contingent on available resources and community involvement and leadership. When prioritizing areas for fuels treatment projects, identify a variety of projects on multiple land ownerships within the highest priority areas. Some projects will require grant funds to complete; some may be implemented by federal agencies based on input from the CWPP; and others may be defined, developed, and funded by neighborhood groups, or local fire departments. A diverse approach provides CWPP groups with more possibilities and flexibility to get work done on the ground.



Ecological Restoration. When developing a CWPP it's important to consider the ecological restoration needs of the forests along with community protection issues. Below are four recommendations for integrating ecological restoration opportunities into a CWPP.

- When convening decision-makers and other stakeholders to develop the CWPP, be sure to engage all relevant land management agencies and institutions, and specifically ask that they bring their ecological expertise and information to the table.
- When developing a community base map and identifying the initial boundary of the WUI, work with agency and species experts to assess and consider how ecological restoration needs will impact the area of focus.
- The CWPP risk assessment should take advantage of vegetation, fire, and fuel mapping data products and tools, adjusted for local conditions, to analyze the condition and restoration needs of the predominant forested ecosystems in and around the community. LANDFIRE offers publicly-available, consistent fuels data to support fire planning, analysis, and budgeting; and data to supplement CWPP and other planning and management activities that benefit from consistent vegetation data. <http://www.landfire.gov/index.php>
- Endeavor to develop priorities that achieve both community protection and ecological restoration outcomes. List actions needed to achieve that condition, such as mechanical thinning and fire for resource benefit. Then implement those actions systematically to achieve the desired future land condition.

Implementing fuels reduction projects on all lands

Coordination with Federal Agencies. Once completed, a CWPP provides statutory incentives for the USFS and BLM to consider the priorities of local communities as they develop and implement forest and rangeland management and hazardous fuel reduction projects. USFS and DOI develop budget priorities based on project collaboration and CWPP objectives - this includes grant funding and federal projects. Below are steps for enhancing coordination with federal agencies:

- Support agency projects that meet CWPP objectives during public meetings and public review processes.
- Provide agency management and associated fire management staff with community project information early in the planning process.



- Recognize project funders 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.
- Collaboratively define the WUI and associated boundaries that are effective in meeting treatment objectives and funding strategies. HFRA includes advantages for communities that designate larger WUIs by providing streamlined NEPA requirements for projects that are within a community-designated WUI.

Neighborhood Fuels Reduction. Central to a CWPP are the priorities established for fuels reduction across multiple land jurisdictions within the planning area. A neighborhood fuels-reduction project is one method of bringing together private stakeholders to reduce the wildfire threat to at-risk communities. 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. Creating defensible space allows firefighters to easily access and more effectively defend a structure from a wildfire threat. “Defensible space” is an area, typically 30 feet wide or more, between an improved property, e.g. house, barn, etc., and a potential wildfire where the combustibles have been removed or modified.
- Landscape scale Larger landowners 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 neighborhood fuels-reduction project may include all three types of sites, and how it is planned and carried out depends on the priorities of local residents, opportunities for funding, conditions of the land, and land ownership patterns.

Firewise Communities. Achieving Firewise Communities status can help maintain public involvement in CWPP action plan implementation and enhance local capacity to pursue project funding and implementation opportunities. The national Firewise Communities program is a multi-agency effort designed to reach beyond the local fire service and involve homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire - before a fire starts. <http://www.firewise.org/>

Stewardship Contracting. Stewardship contracting authorities are a specific management tool that the USFS and BLM can use to collaborate with communities and stakeholders to identify and implement restoration projects, including hazardous fuels reduction treatments. Stewardship contracting authorities can provide a stable source of guaranteed, long-term supply of

fiber to local industry using non-cost criteria to exchange fiber for privately funded forest restoration services. Collaborative groups have been successful working with federal agencies to develop economically feasible stewardship contracting projects. One of the initial steps to any successful effort is assessing the local capacity to implement a stewardship contract. Informing contractors about stewardship contracting and involving contractors and industry representatives in the planning process is a key challenge for many of collaborative groups.



Woody Biomass Utilization. Reducing hazardous fuels on public and private land can produce sizeable quantities of small diameter woody biomass. Given the high cost of fuels reduction and the low value of material that needs to be removed, it is unlikely that utilization of woody biomass will completely pay for treatment costs. Nevertheless, utilization of woody biomass can help reduce or offset treatment costs and has the potential to support sustainable local industries while improving forest health. Encourage early review and involvement by local forest-based industry partners and associations 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.

Case Study Examples from Existing CWPPs

- To be added

Fuels Reduction and Restoration Resources

- USDA Forest Service Stewardship Contracting Resource page: <http://www.fs.fed.us/forestmanagement/projects/stewardship/index.shtml>
- Management Tools for CWPP Implementation: Stewardship Contracting and Biomass Utilization (insert hyperlink)
- Woody Biomass Utilization Desk Guide: http://www.forestsandrangelands.gov/Woody_Biomass/documents/biomass_deskguide.pdf



Section 4:

Structural Ignitability

The CWPP Handbook refers to the phrase “Ignitability” six times. Clearly it is an important aspect of community wildfire protection planning. This section discusses the importance of reducing structural ignitability and provides strategies to help communities and residents identify and implement regulatory and non-regulatory approaches to reduce the structural ignitability of the homes in their communities.

Reducing Structural Ignitability

A community approach to reducing structural ignitability is dependent on the willingness of individual citizens to engage in CWPP efforts by addressing the needs around their homes and the ignitability/combustibility/flammability of their home. A CWPP that includes a broad approach to structural ignitability should include a range of activities, including public education and outreach, information on codes, regulations, and standards, as well as the ability of local fire agencies to assist in protecting and saving homes during a wildfire.

During extreme WUI fires homes ignite in two principle ways: 1) directly from flame heating and, 2) from direct firebrand ignition (burning ember spot ignitions). Therefore it should be obvious that if one lessens the ignitability of the structure and its immediate surroundings (the home ignition zone (Cohen 2001)), you and your home have a much higher survival potential.

A community can also work to reduce existing WUI fire problems by proper zoning, adequate development standards, building and fire codes with requirements for reduced structure ignitability, an enforcement program to reduce ignitions, and a fire department that is prepared to respond are all-inclusive issues that should be addressed in a CWPP process. This section of the updated CWPP Handbook includes a list of key questions and considerations to help communities address the following issues in CWPP planning and implementation:

- 1. Individual Responsibility**
- 2. Zoning Regulations**
- 3. Development Standards**
- 4. Building Codes**
- 5. Fire Prevention Codes**
- 6. Fire Response**

These preventive actions will assist the individual homeowners with the understanding that they are ultimately responsible for the protection of their homes from wildfire. The magnitude of the problem is such that during severe fire weather events it is unreasonable to expect that the fire service can protect all of the homes at risk.

Individual Responsibility

Individual responsibility is paramount in a successful CWPP. Regulations, education, and fire departments cannot accomplish all that residents can by

taking the initiative to commit to protecting themselves and their property.

1. Regardless of the protection measures adopted for the community as a whole, individual homeowners and property owners have a responsibility to ensure they attempt to mitigate deficient factors, which are within their control regarding structural ignitability.
2. They should eliminate, protect, reduce, treat, and/or replace building materials, which are combustible with materials, which are less likely to ignite.
3. They need to adopt the philosophy that they are ultimately responsible for their lives and property, and protect them as though the fire department was not going to be able to provide them with fire protection.
4. The mitigation of structural vulnerability or ignitability may very well mean SURVIVABILITY for WUI residents!!!!!!!



Zoning Regulations

Good zoning regulations ensure a structured and regulated risk assessment has been considered prior to development.

- Zoning can be designed specifically for the WUI.
- Zoning can provide tools to ensure that development standards are maintained.

Through the CWPP process, a community can address questions critical to developing or amending relevant zoning regulations:

1. How do we geographically display the areas where regulations relating to reducing wildfire hazard risk will apply?
2. What geographic information do we have to determine the high risk areas, i.e. maps showing topography, vegetation, climate, population density, areas of social value, historical fire occurrence, fire district boundaries, wildlife, etc?
3. Are we addressing only new construction, or will regulations also apply to existing structures?
4. Will zoning address structural ignitability as well as defensible space?
5. Once risk areas are determined, what risk categories will regulations apply to moderate, high, or extreme areas?

Development Standards

Development standards ensure that public safety issues are addressed in the development process. Some of the more common standards relate to:

1. Road width (24 feet), grade (6% or less), surface drivable.
2. Cul-de-sac length, 400 feet long is recommended.
3. Turnouts and turnarounds.
4. Water system, fire hydrants, water storage, backup electricity for pumps.
5. Open space, fuel reduction zones and maintenance.
6. Street signs and a house numbering system visible from the road.
7. Electrical lines underground.
8. Adequate ingress and egress, and possible shelter in place standards.

Building Codes

Building codes are national standards and provide a credible methodology



for protecting life and safety for the community. Some building code elements aimed at enhancing the likelihood for structure survival in a fire, include:

1. Non-combustible exteriors and appurtenant structures.
2. Dual pane and tempered glass windows.
3. Minimization of vent openings and provision of adequate vent covering.
4. Spark arrestors on fireplace chimneys.
5. Smoke alarms.
6. Fire department access to swimming pools.
7. Ignition resistant construction development wide.

Fire Prevention Codes

Fire Prevention Codes are a national standard developed for the protection and life safety of citizens and firefighters and are aligned with the building codes. They include:

1. Vegetation clearance requirements.
2. Enforcement and inspection program.
3. Weed abatement program.
4. Wildland Urban Interface Code adoption.
5. NFPA 1144 adoption.
6. Firewise principles and practices adoption.
7. Maintenance of achieved defensible space

Tip Box

- **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:** Reduce flammable and combustible material perimeter
- **Support the Fire Department:**
Help them help the community!
Create defensible space

Fire Response

Fire response is a critical component of the community fire protection system. It is imperative that the community understands that the fire department alone cannot protect and save everyone's property from loss. In developing a CWPP, some important questions are:

1. What are the fire department(s) training, equipment, response capabilities and limitations? Do they meet any recognized National Standards, e.g. adequately trained and equipped to respond to and control 95% of all wildfires at less than 5 acres?
2. Do the fire department(s) participate in a mutual aid system and can they communicate/coordinate with the assisting fire departments, aircraft, etc.?
3. Do the fire department(s) have the ability to increase staffing and resources due to adverse wildfire predictions?
4. Can the fire department(s) initiate communication with the community to advise citizens of recommendations to shelter in place or evacuation orders and routes and safe zones?

Resources related to reducing structural ignitability

- International Association of Fire Chiefs, CWPP Leaders' Guide Supplement
- http://www.iafc.org/associations/4685/files/CWPP_rev062005.pdf
- United States Forest Service website <http://www.usda.gov>
- US Department of Interior website <http://www.doi.gov/>
- Firewise website <http://firewise.org/>
- National Wildfire Programs Database www.wildfireprograms.usda.gov
- Google articles by Jack Cohen on wildfire

Section 5:

Monitoring and Evaluation

Local, state, and federal agencies, community organizations, and individuals have invested countless hours and significant funds across the country to develop CWPPs since HFRA was enacted in 2003. It is imperative to determine how well these plans are reducing wildfire risk. 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 Handbook is intended to highlight the need for and present strategies to conduct monitoring and evaluating of CWPPs.



Objectives for CWPP Monitoring and Evaluation

At a local level, objectives of a CWPP monitoring and evaluation process can include:

- Track accomplishments and identify the extent to which CWPP goals have been met.
- Examine collaborative relationships and their contributions to CWPP implementation.
- Identify actions and priority fuels reduction projects that have not been implemented; set a course for future actions and update the plan.
- Evaluate the resources necessary for successful CWPP implementation;

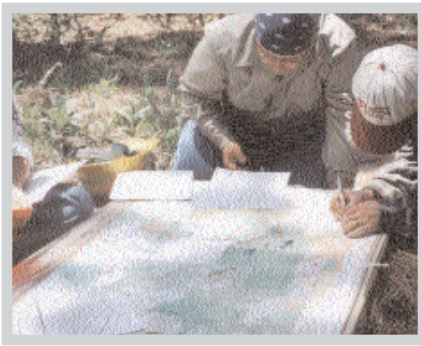
Broader objectives for CWPP monitoring and evaluation can include:

- Identify local, state, regional and national policies and programs that will support CWPP evaluation processes.
- Evaluate CWPP contributions to reducing wildfire risk on a local, regional and national level.

CWPP Policy: National, State, and Local Measures

CWPPs are part of a larger national effort to improve the health of our nation's forests and reduce wildfire risk to communities. Federal investments of time and money must show results in a way that justifies that investment. Federal decision makers are not often able to see the local successes gained from a CWPP and its projects. Data from monitoring and evaluation processes can be collected across communities and inform progress and effectiveness at a national level, helping ensure that funding and agency efforts are geared toward successful approaches.

Common elements of monitoring information are needed in each CWPP in order to synthesize similar information into a national level evaluation. National level guidance for these monitoring and evaluation measures can be found in the Revised Ten Year Comprehensive Strategy (December 2006), which includes specific performance measures that are applicable to CWPPs. Performance measures set the stage for both agency accountability and future agency budget processes. (These performance measures are provided in Table 1.)

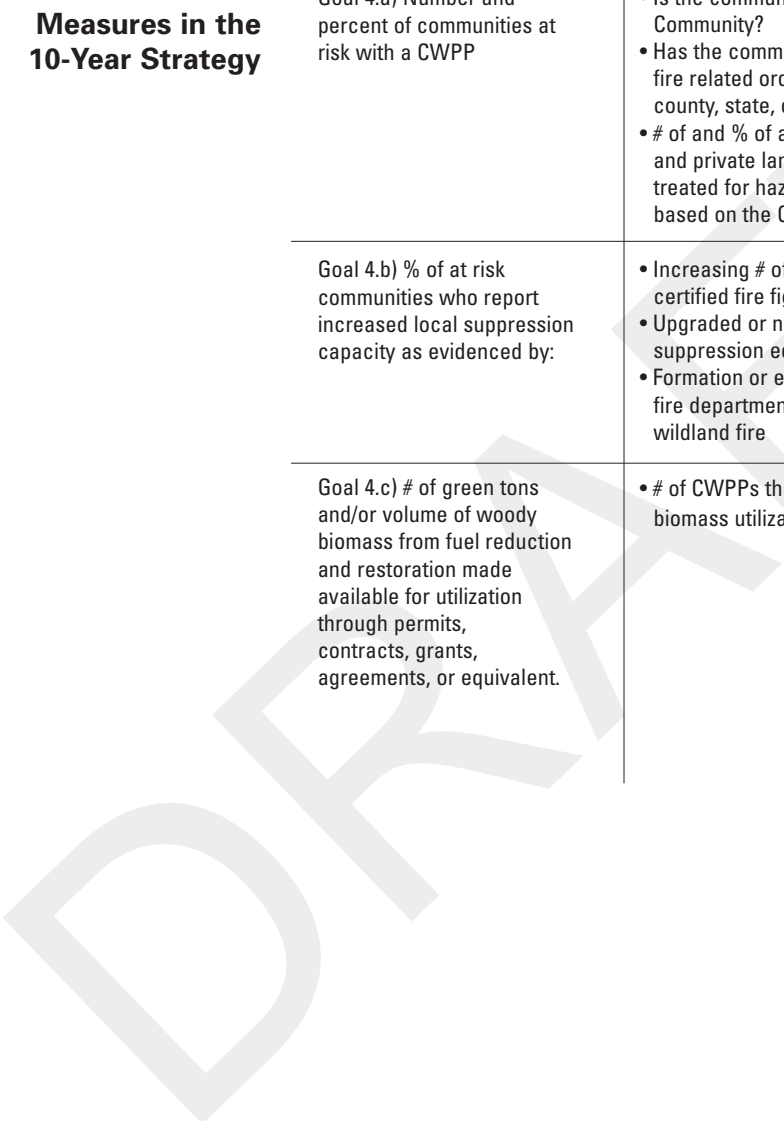


These existing performance measurements may or may not be sufficient to effectively evaluate the outcomes from CWPP's. Measurement strategies are needed from local efforts to determine the most effective interface between local monitoring needs and national information needs. Like local planning processes, national monitoring and evaluation strategies can and should be adapted and improved as we learn from wildfire planning efforts. Table 1 also includes suggestions for additional performance measures that might be useful, as well as data sources that could be used to collect data and evaluate the measure during local evaluation processes.

Table 1.

CWPP Related Performance Measures in the 10-Year Strategy

10-Year Strategy Performance Measure	Data to collect at a local level	Partners
Goal 4.a) Number and percent of communities at risk with a CWPP	<ul style="list-style-type: none"> • Is the community a Firewise Community? • Has the community enacted a fire related ordinance? If so, county, state, or local? • # of and % of acres on public and private land in the WUI treated for hazardous fuels based on the CWPP priorities 	Local, state, and federal agencies
Goal 4.b) % of at risk communities who report increased local suppression capacity as evidenced by:	<ul style="list-style-type: none"> • Increasing # of trained and/or certified fire fighters and crews • Upgraded or new fire suppression equipment • Formation or expansion of fire department involved in wildland fire 	Local, state, and federal agencies and fire districts
Goal 4.c) # 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.	<ul style="list-style-type: none"> • # of CWPPs that address biomass utilization 	Local, state, and federal agencies



CWPP leaders, land management agencies, or a team of project partners can collect data that will help policy makers measure program effectiveness and evaluate whether or not HFRA and NFP goals and objectives are being met. The goal of effective CWPP monitoring and evaluation is to learn from successes and failures and target resources and efforts strategically to maximize risk reduction and forest restoration. Local level monitoring and evaluation efforts are the key to improving processes at each scale, from their own local efforts to the national level.



HFRA specifies three key elements of a CWPP: Collaboration, priority fuels projects, and reducing structural ignitability. (See Tip Box 1) As a community develops and implements its CWPP, there are key questions that can be monitored to help determine the effectiveness of its plan. These questions are the most critical to monitor and report on a local and national scale.

1. Collaboration

- a. How has the collaborative process assisted in implementing the CWPP?
- b. Have partners involved in the planning process remained engaged in implementation? Have new partners become involved?

2. High Priority Fuels Reduction Projects

- a. 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?
- b. What is the number of residents that have participated in projects and completed defensible space on their land?

3. Reducing Structural Ignitability

- a. What is the availability and capacity of local fire agencies to respond to wildland and structural fire?
- b. What is the level of interest shown and action taken by local community members to increase the resilience of their structure to fire?

Strategies for monitoring and evaluating CWPP outcomes

A 2008 guide aimed at assisting communities' monitor and evaluate their fire plans provides a step-by-step process to help communities assess how well they have addressed the goals and objectives of their CWPPs and update actions for the future. [Insert hyperlink when posted.] The Guide recommends collaborative strategies to bring partners together to conduct the evaluation, gather relevant data, and write the evaluation report. Benefits of a local evaluation may also include identifying strategies that help communities to plan for and reduce the risks of other natural disasters. The process is intended to provide a framework for a community to review the existing CWPP, choose appropriate indicators, and obtain information to evaluate programs, document the evaluation, and update the plan. Perhaps the most critical aspect of a monitoring and evaluation process is identifying the impact a CWPP has had in a community. The Guide provides suggestions on how to evaluate six elements of a CWPP. Table 2 illustrates the six elements of the Guide and the key questions asked to track CWPP outcomes. The full Guide also includes specific indicators, potential data sources, and a workbook to help communities describe the information they collect, key findings, outcomes, and changes over time.

Table 2.
Evaluating CWPP Outcomes

Goal	Monitoring and Evaluation Questions
1. Partnerships and Collaboration	<p>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?</p> <p>1.2 How did the fire planning process influence CWPP implementation?</p> <p>1.3 How has the CWPP increased the capacity of the community to reduce wildfire risk?</p> <p>1.4 Core CWPP Accomplishments?</p>
2. Risk Assessment	<p>2.1 How has the community changed over time? (Demographics, residential and commercial development, etc.)</p> <p>2.2 Are there new or updated data sources that may change the risk assessment and influence fuels priorities?</p> <p>2.3 How is the risk assessment being used to make decisions about fuels priorities?</p>
3. Reducing Hazardous Fuels	<p>3.1 Public Land Treatment</p> <p>3.2 Private Land Treatment</p> <p>3.3 Structures under protection</p> <p>3.4 Economic development resulting from fuels reduction</p> <p>3.5 How many local jobs have resulted because of fuels reduction or restoration activities?</p>
4. Reducing Structural Ignitability	<p>4.1 Resource losses (household, cultural, economic, community, etc.)</p> <p>4.2 Risk to fire damage (compare to before CWPP implementation)</p> <p>4.3 Planning and development: Are the current codes and regulations for wildfire hazard adequate? If not, are there efforts to change or update them</p>
5. Education and Outreach	<p>5.1 What kind of public involvement has there been during CWPP implementation?</p> <p>5.2 What kind of change in public awareness about wildfire has resulted from the plan?</p> <p>5.3 What kinds of activities have citizens taken to reduce wildfire risk?</p>
6. Emergency Management	<p>6.1 Is the CWPP integrated within the county or municipal Emergency Operations Plan?</p> <p>6.2 Does the CWPP include an evacuation plan? If yes, has it been tested or implemented since the CWPP adoption?</p> <p>6.3 Is the CWPP aligned with other hazard mitigation efforts?</p>

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, which was adopted in November 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>.

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% 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



Monitoring and Evaluation Resources

- Guide to CWPP Monitoring and Evaluation: <http://ri.uoregon.edu/programs/CCE/communityfireplanning.html>
- Multiparty Monitoring Resources:
 - 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.redlodgclearinghouse.org/resources/handbook_full.html
 - Rural Voices for Conservation Coalition – Multiparty Monitoring Issue Paper: <http://ri.uoregon.edu/programs/CCE/communityfireplanning.html>

DRAFT

PARTNER GUIDE to Preparing and Implementing a CWPP

PROJECT PARTNERS



RESOURCE
INNOVATIONS



WESTERN
GOVERNORS'
ASSOCIATION



Sustainable Northwest

Communities
Committee

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