



The Community Wildfire Protection Planning Process: A Quick-Guide Series on Collaboration

This series offers a set of lessons learned concerning the collaborative processes that influence and guide the development of community wildfire protection plans (CWPPs) under the Healthy Forest Restoration Act (HFRA 2003). The lessons learned are offered in relatively short quick-guide (QG) formats, which are linked together into an overall framework.

The narrative framework begins with the community and ecological context within which the CWPP is being prepared. It then describes a number of factors that make up the collaborative planning process itself, illustrating a range of the critical elements, roles, and activities which will most likely strengthen and sustain collaboration within the CWPP. Finally, it spells out some of the benefits and outcomes of working collaboratively to formulate a community plan for wildfire protection.

The lessons described herein have been derived from a set of quite diverse community case studies conducted as part of a Joint Fire Science Program (JFSP) research project (<http://JFSP.fortlewis.edu>); each of these in its own way illustrates the unique context, process, and outcomes being experienced by many community citizens, governmental leaders, and public land managers in working with wildfire protection planning. Our intent is not to present any of the quick-guides as if they stand alone as singular indicators of success, but rather as a menu of factors that influence each other, that are continually interacting to guide, adapt, and improve the collective actions of communities and organizations. While each QG fits within a broad framework about the collaborative development of CWPPs, our intent is not to present a comprehensive story of the planning process as if it were a formal set of discreet, sequential steps. While indeed there can be some order or guiding structures to preparing and implementing a high-quality

CWPP, most often there is a significant level of interplay between many conditions, resources and actions, which are reflected in the Quick Guides (QG's) that follow.

Below, each quick guide is introduced by a short overview that describes its distinctive features. If you wish to view that particular guide in its entirety, click on the appropriate **LINK**. You may find any number of interrelationships among the QG's, and perhaps discover that several of them together provide you the assistance being sought because of the inherent parallels and influences among them.



GUIDE TO THE QUICK-GUIDES

Community Context/Antecedents/Readiness

| | |
|------|----------------------------------|
| QG 1 | Current community situation |
| QG 2 | Existing leadership |
| QG 3 | Existing networks |
| QG 4 | Scale of wildfire problems/goals |

Links

| |
|-----|
| QG1 |
| QG2 |
| QG3 |
| QG4 |

CWPP Development Process

| | | |
|-------|---|------|
| QG 5 | The Role of the WUI in CWPP Planning and Implementation | QG5 |
| QG 6 | Assessing Community Resources for Collaboration | QG6 |
| QG 7 | Crafting Effective Messages to Inspire Community Participation | QG7 |
| QG 8 | Participant Roles and Functions | QG8 |
| QG 9 | Key Components of CWPPs/Templates | QG9 |
| QG 10 | Factors that Influence Collaboration in CWPPs | QG10 |
| QG 11 | Potential Resources and Authorities Brought by Government Participants to the Collaborative Process | QG11 |

Outcomes /CWPP and Collaboration Outcomes

| | | |
|-------|-----------------------------------|------|
| QG 12 | The Diverse Benefits of CWPP's | QG12 |
| QG 13 | Knowledge/Learning Community | QG13 |
| QG 14 | New/Increased Capacities | QG14 |
| QG 15 | Implementation and Sustainability | QG15 |

Miscellaneous/Support

| | | |
|-------|--|------|
| QG 16 | Community-based Approaches to Knowledge Transfer | QG16 |
| QG 17 | CWPP Resource Directory | QG17 |
| QG 18 | Monitoring the Collaborative Process | QG18 |
| QG 19 | Conducting Risk Assessments | QG19 |

Principal Investigators and Contacts:

Pamela Jakes, USFS
North Central Research Station
St. Paul, Minnesota
pjakes@fs.fed.us or 651-649-5163

Daniel Williams, USFS
Rocky Mountain Research Station,
Fort Collins, Colorado
drwilliams@fs.fed.us or 970-295-5970

Partner Investigators and Institutions:

Sam Burns, Fort Lewis College,
Durango, Colorado
Antony Cheng, Colorado State University
Kristen Nelson, University of Minnesota
Victoria Sturtevant, Southern Oregon University

Web Site: <http://JFSP.fortlewis.edu>



In reviewing the work of communities and organizations to address wildfire threats and protection measures we found that the history, characteristics, and conditions of both the community and ecological situations played a very significant role in defining the CWPP. All of these aspects, whether they are past wildfire occurrences, the scientific or perceived risks of future occurrences, or the abilities of community members and land managers to work together on natural resource issues, make up the context for building a CWPP.

In examining the CWPP case studies we have found a number of important contextual characteristics that establish starting points, opportunities, goals, and capacities that in turn clearly influence the development and outcomes of the plan.



Quick-Guide #1: Context: Current Community Situation



Because CWPPs are by and large meant to be community-based, it is quite helpful to know about the capacity of the county, town, or neighborhood to lead and participate in the planning process. This capacity is spoken of as “capital.” Another name might be resources, which may include social, economic and political attributes such as previous experiences of working together, knowledge of local natural resource values, natural resource mapping abilities, commitment to solve problems in a cooperative manner, and funding to obtain technical assistance.

While it is worthwhile to be aware of the levels of “capital” within the community, one should not conclude that situations or places that might be said to have less capital should not be engaged to build a CWPP. However, a significant awareness of the levels of available resources will help define appropriate methods of community involvement and increase the likelihood of success. ([LINK to QG1](#))

Quick-Guide #2: Context: Existing Leadership



Within each CWPP context there are a variety of leadership situations and patterns. Through them the community establishes ways to address its common problems and concerns. Because CWPPs require collective or community-based action, leadership is a critical ingredient. Can the protection planning process rely upon strong political leadership from local governments and fire protection organizations? Do leaders exist at a neighborhood or subdivision level? What leadership role can be played by non-profit organizations and interest groups?

Within each community context there will be a level of cooperation between and among leaders, citizens, and various social and political sectors with regard to natural resources. Is there a history of having worked together on land and forest management? In the past, have people demonstrated a commitment to participate in creating a common vision or working agreements about desired community interactions with the natural environment? ([LINK to QG2](#))





Quick-Guide #3: Context: Existing Networks



Somewhat parallel to existing leadership capacities are the presence and depth of resource networks. Again there is a great variety among these. Some might be described as social networks that are based on interactions and relationships among neighbors, different interest groups, or perhaps among diverse leaders throughout the community. Often networks will exist among governmental entities, community service organizations, and forest land user groups. Sometimes there will be coalitions among groups and organizations who share a common interest in natural resource issues, such as public land partnerships or conservation associations.

Whatever the nature of the networks, be they leadership, organizational, or issue-based, they likely possess resources useful or appropriate to a collaborative planning process. What networks exist? Can the existing resource networks in the community context be mobilized? How well are these networks connected with regard to the issues and concerns of wildfire protection and mitigation? **(LINK QG3)**

Quick-Guide #4: Context: Scale of Wildfire Problems / Goals

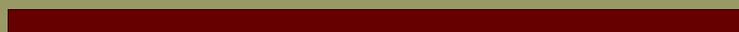


Quite often one of the initial questions that arise as CWPP work begins concerns the area to be covered or addressed. This can be defined as a question of scale. Will the CWPP deal with an entire county or region in a broad landscape sense and in a manner that local communities and subdivisions can tier to it? Or will local communities be encouraged to begin at a smaller scale with the intent that the individual CWPPs will be linked together over time? Obviously, the scale chosen has many impacts on the planning process and on associated factors such as selecting the key leaders, the number and nature of the resource networks that need to be involved, and the complexity of the risk assessment process, among many others.

Although the case studies don't indicate a single right answer as to how a CWPP core group decides on the scale of the plan, the choice does have many concrete implications for the collaborative process and its outcomes. **(LINK QG4)**



Context also addresses the scale of the CWPP. Defining the area a CWPP will cover is a vital first step.



PROCESS

Establishing the WUI boundaries is also an important first step in the CWPP development



Quick-Guide #5: Process: Role of the WUI in Planning and Implementation



The Healthy Forests Restoration Act provides an opportunity through the CWPP development process for communities, fire protection authorities, and public land managers to set the boundaries of the Wildland-Urban Interface, or WUI, that will guide the planning effort. The WUI zone seeks to define the geographic area where community features such as houses, commercial buildings and activities, and key social infrastructures such as hospitals, schools, and transportation systems meet or connect with natural or wildland vegetation. The trend for residential development to spread out onto the wildland landscape has increased the risk of wildfire impacts on communities.

When communities, land managers, and other collaborative partners take the initiative in defining the WUI, its boundaries and characteristics can be “customized” to fit the local ecological and jurisdictional scales. If initiative is not taken through the CWPP process, the WUI defaults to a boundary 1 ½ miles beyond the urban edge of the community. There are many social, economic, and political or governmental reasons to define the WUI boundaries in a collaborative manner. **(LINK QG5)**

Quick-Guide #6: Process: Assessing Community Resources for Collaboration



Not all communities start at square one in terms of collaboration for CWPPs; on the other hand, not all communities are prepared to immediately enter discussions about values-at-risk and priority treatment areas. Understanding the availability of the community’s resources for collaboration can help organizers of a CWPP to hit the ground running. This Quick Guide provides CWPP organizers with a set of categories and probing questions to assess a community’s resources for collaborating in CWPP development. The Quick Guide also provides Suggestions on how to proceed, given available community collaboration resources. **(LINK QG6)**



Quick-Guide #7: Process: Crafting Effective Messages to Inspire Community Participation

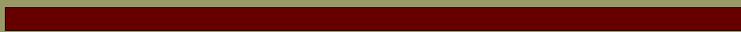


To the surprise and dismay of many wildfire mitigation specialists and land managers, community residents often don't respond to the messages specialists use to persuade them to participate in CWPP development and take mitigation activities. One way to think about this issue is that wildfire specialists, land managers, and community residents have different frames of reference for how wildfire will affect the community. Understanding the diversity of frames that community residents have can better help CWPP organizers to recruit community residents. It is likely that CWPP organizers have to develop different messages to target different segments of a community. For some individuals, the appropriate message might emphasize wildfire risk to life and property. For others, the message might focus on scenery, wildlife, and the "sense of place" that might be impacted by a wildfire. Conducting an assessment regarding what the community residents value about their place can provide essential information for what kinds of messages might resonate. It is also important to let residents know where in the CWPP process they can provide input, such as identifying values-at-risk. **(LINK QG7)**

Quick-Guide #8: Process: Participant Roles and Functions



Developing a Community Wildfire Protection Plan (CWPP) is a collaborative effort among government entities, and between government entities and interested and affected non-governmental interests, especially local community residents. All participants bring something to the table, such as: leadership and vision; fostering mutual learning and inclusive discussion among participants; facilitating communication among participants; locating financial resources; recruiting key agency and community participants through their social networks; linkages to other mitigation, emergency preparedness, and forest management plans; and scientific and technical information. Conducting an inventory of available resources, identifying gaps in these resources, and assigning who will be responsible for bringing what resources can increase the efficiency and effectiveness of the collaborative process to develop a CWPP. **(LINK QG8)**





Quick-Guide #9: Process: Key Components of CWPPs and Templates



There continues to be a wide array of formats for CWPPs. Since considerable latitude is allowed within the HFRA authorizing legislation, with only three primary elements spelled out, local communities and land management agencies have created numerous models. These reflect the size and scale of the planning area, the ways the wildfire problem is defined, and whether the planning group has minimal or extensive resources at its disposal. Nevertheless, given all the variations in social and ecological situations, a number of key elements stand out as typical or highly significant. **(LINK QG9)**

Quick-Guide #10: Process: Factors that Influence Collaboration



While participants typically desire to utilize collaborative practices in developing and implementing a CWPP, consideration of the specific factors that enhance collaboration can help make the process more practical. Success can be increased by working collaboratively to address the wildfire protection issue, but where do you start? What are the building blocks and key activities that define the shared efforts? **(LINK QG10)**

Quick-Guide #11: Process: Potential Resource and Authorities Brought by Government



Communities and public land agencies are often identified as primary participants in the CWPP process. These two entities are fundamental because of the CWPP's explicit focus on the wildland-urban interface (WUI), that critical geographic and topographic landscape within which wildland fire risks can severely affect social and human assets, and where community activities and functions can significantly affect ecological functions and health. Overlaying these two entities is a wide array of governmental organizations and functions. These include fire protection organizations, city councils, planning departments, emergency management units, and a variety of regional councils. These organizations can provide fiscal resources, coordination, scientific knowledge, geographic information, monitoring, and numerous statutory authorities to assist with policy development and implementation. **(LINK QG11)**

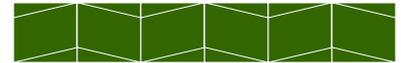
OUTCOMES

Quick-Guide #12 : Diverse Benefits of CWPPs



As with most collective efforts, the benefits of a social planning process need to be understandable and as tangible as possible. Developing a CWPP is a substantial investment of individual and organizational resources, for which the participants need to sense worthwhile outcomes. The nature of these outcomes can be quite varied and unique to the interests of different stakeholders. In examining the 13 cases of this research project several types of benefits were recognized, including ones that might be termed social, knowledge or capacity-based, natural system or infrastructure, and financial. It appears to help maintain the commitment of participants in a CWPP process if they can recognize benefits such as these that are relevant to their goals. For those communities asking whether making the investment in a CWPP is worthwhile, these examples of potential benefits may provide encouragement. **(LINK QG12)**

Quick-Guide #13: Knowledge / Learning Community



One of the more interesting discoveries about collaboration in CWPPs is that participants of diverse backgrounds learn about the social and ecological aspects of wildfire and their own community. By entering into a variety of planning activities, including debate about objectives and priorities and research, they obtain local knowledge and facts about the wildlands that surround their neighborhoods. They begin to understand how the water, trees and critters function together in an ecosystem; how wildfire plays a role in that ecosystem along with its risks; how fire behavior will change with topography and types of vegetation. Citizens in neighborhoods get to know each other in ways that might be helpful in other emergency situations and in governance. The many ways that a whole community can work together through its governmental, non-profit, scientific and voluntary resources become far more apparent as participants learn about and increase their readiness for wildfire. Over time a learning community is formed out of a CWPP development process that has lasting values for participants and for ongoing collective action. **(LINK QG13)**





OUTCOMES

Quick-Guide #14: New / Increased Capacities



At the outset of each CWPP development process, there exist in the community some elements that facilitate collective action, coordination, and collaboration. The aggregate of these elements makes that community appear to be a high or low capacity community relative to collaborative potential. We can typically expect that many of these elements will be enhanced in some measureable ways during the CWPP process. We have seen capacities such as leadership skills, social relationships and networks, ecological knowledge, fact finding, and joint problem-solving expand in some degree as a result of developing a CWPP. Other capacities related to governmental cooperation, community visioning, public infrastructure, emergency readiness, or community cohesion have also been enhanced. When taken together in all their variations, enhancing these capacities adds up to stronger and more sustainable communities relative to wildfire protection, but also with regard to possible future public issues and concerns. **(LINK QG14)**

Quick-Guide #15 : Implementation and Sustainability



The outcome that all participants in a CWPP development process seek is successful and sustainable implementation. For the protection plan to sit on the shelf is not anyone's vision of success. Protecting a community through a broad range of fuel reduction, prevention education, defensible space, and land use policy actions is a long-term venture. Reduction of wildfire risk or improvements in ecological health, community awareness and readiness are not obtainable in the short term—a few months or years. Implementation of a long-term plan for wildfire protection and mitigation will obviously depend on ongoing access to a variety of resources (human and fiscal) and public policy decisions that support implementation. The degree to which the CWPP process was open and inclusive will also influence implementation sustainability. Long-term sustainability of CWPP projects and objectives will depend on how the wildfire issue was defined, the scale of planning (did the CWPP take a strategic/landscape view or more localized view), whether a learning community formed, and if one or more coordinating, bridge-building, resource-integrating entities emerge in the CWPP process. **(LINK QG15)**





Quick-Guide #16: Community Based Approaches to Knowledge Transfer



One of the five specific objectives of the Joint Fire Science (JFS) project has been to transfer the practical knowledge gathered from approximately a dozen CWPP case studies. In this process the research staff has viewed wildfire mitigation, community and professional practitioners, local government officials, and fire managers as *co-participants in knowledge building*. At the Eugene, Oregon, regional workshop (September 14, 2007), it was stated, “As CWPP groups continue implementing plans they need to tell their stories.” Because the development and implementation of most CWPPs occur within a range of community and ecological contexts with a wide variety of collaborative and other resources capacities, and lead to diverse outcomes, the merits of sharing knowledge both from research and practice are highly worthwhile. This Quick Guide will connect you to the proceedings of three regional knowledge transfer workshops, held in Oregon, Colorado, and Wisconsin. ([Link to QG 16](#))

Quick-Guide #17: CWPP Resource Directory



Since the passage of the Healthy Forest Restoration Act (PUBLIC LAW 108–148—DEC. 3, 2003), many hundreds of Community Wildfire Protection Plans have been developed. Communities, land management agencies, fire departments, and emergency management organizations, among many others have learned from each other, building on the best practices of those who went before them. The study of the CWPP cases in this project has shown strong evidence of sharing knowledge among communities in a given state and through networks across regions. The resource directory presented here is intended as a sampling only, a means of opening a few doors and encouraging the expansion of existing knowledge networks and communities. ([Link to QG 17](#))

Quick -Guide #18: Monitoring the Collaborative Process



While the JFS/Collaborative CWPP Project did not address the active implementation of monitoring specific CWPPs, the need to follow their progress and outcomes was clearly a topic of concern. With significant efforts invested into building an action plan within a CWPP, many expectations arise that a variety of objectives will be met over time, such as addressing forest ecology, community safety, structural protection, or prevention education. The key messages here are that monitoring the implementation status of a CWPP is important; that monitoring needs to be considered during the plan development period; and that monitoring is an ongoing contributor to multi-stakeholder collaboration and shared learning. ([Link to QG 18](#))



Quick-Guide #19: Conducting Risk Assessments



While the JFS Project/ CWPPs – Enhancing Collaboration and Building Community Capacity did not intensely study the diversity and nor the feasibility of methods for preparing a wildfire risk assessment, it is quite apparent that they need to be collaboratively conducted. The designation of the wildland-urban interface is one of the more strategic and important decisions made through the CWPP process, having numerous implications for ongoing risk reduction investments. Using a collaborative wildfire risk assessment to establish implementable goals within the WUI, to learn about ecological health, and to bring together a diverse range of scientific and local community knowledge will produce many long-term benefits. **(Link to QG 19)**



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #1: Current Community Situation

Understanding the capacities and social dynamics of a community is useful in undertaking a community-based collaborative project. Particularly important are the history of the community and its social composition, including the individual and organizational resources which give it the capacity to launch a collaborative effort.

Just as ecosystems vary, communities vary in their histories, social diversity and organizational complexity. Their economic function, growth trends, land ownership patterns, and array of resources influence the capacity of a community to launch a collective project. Social scientists categorize community assets as different kinds of “capital.” Social capital (civic participation, norms and trust) and human capital (individual skills and training) are particularly important to the success of CWPP planning, along with political capital (government support) and natural capital (broadly defined as including attachment to place and stewardship ethic).

Social capital is related to community history—prior events and processes that help shape a community’s identity and expectations for civic engagement. The issues and concerns that may arise during participant identification, or plan framing, and other CWPP activities have roots in past resource and wildland fire management. Previous wildfire planning or fuel reduction projects can lay the groundwork for the development and implementation of the CWPP. Even if the objective of an earlier project is not an exact match to CWPP goals and objectives, decisions related to issue framing, definitions of terms, and analysis areas (as just three examples) can be adapted for the CWPP process.

Disagreements within the community regarding any number of issues may threaten the collaborative planning process. Being aware of earlier conflicts may help address differing interests and keep the CWPP process moving forward. Resources (individuals, networks, relationships, and funding) that supported previous fire planning will be key to the CWPP process and implementation.

Individuals bring their talents, knowledge, and skills (human capital) to collaborative wildland fire management. Although agency staff members are likely contributors to the CWPP process, residents can often fill the role of problem solver, data collector, grant writer, fundraiser, and meeting facilitator. People involved in past community efforts can form a cadre of CWPP team members who are experienced in collaborative planning and can offer examples of its benefits to new team members. Retired fire and planning professionals, foresters and agency managers bring many skills and experience; retired agency people are sensitive to local issues and knowledgeable about forest and fire management. (OVER)





One of the more critical roles that individuals play in collaborative wildland fire management is that of a **catalyst for change**. Key community and agency leaders can spark a collaborative effort, taking steps to secure funding and shepherding the process. Besides individuals, events or actions occurring at the community level can also be catalysts. National Fire Plan and other grant funding has been a catalyst, as has state and federal legislation. Wildland fires themselves serve as catalysts. Even when the fire event is removed by time and space, good educators and communicators can make use of these windows of opportunity to facilitate change.

Organizations and networks mobilize community assets such as financial and political capital, and structure human and social capital. Key participants, such as fire department members, county planners and community leaders, have access to these organizations and networks, as do some intermediaries or consultants. These people may also provide linkages to county government or other departments where funding or expertise may be found. Collaborative stewardship groups or watershed councils, and neighborhood or homeowners' associations can help implement the CWPPs. Communities with members who have ties to organizations both within and outside the community may have greater capacity to tackle community-wide concerns. Firewise Communities and Fire Safe Councils networks create ties among communities.

Communities can capitalize on residents' attachment to place (natural capital) to encourage wildfire planning and mitigation. Consistent information about local forest ecology and wildfire behavior, risk assessments, and mitigation opportunities — created before or during the planning process — provides a common language for sharing information with agencies and community members. This can build on the connections to place—as a source of livelihood or retirement retreat — and create shared responsibility and support for CWPP implementation.

Informal systems, neighborhood networks and ongoing social events can bring a community together to accomplish goals, and are especially important in small, isolated communities which may have strong attachment to place and sense of mutual obligation, but lack assets such as financial and political capital. These communities benefit from intermediaries, such as volunteer or paid fire department or government agency staff leadership steering the CWPP process. Although small communities may require assistance, it is important to identify and incorporate their local leaders, strengths and values. CWPPs can include even small-scale or seasonal activities such as cleanup days that immediately engage community residents and build the sense of community, in order to generate interest and visibility.

Don't count on economic and political capital to be sufficient to launch and sustain a CWPP process. Communities lacking an ability to work together (social capital) and not taking the time to build it will find their CWPP may lack community or agency support. While funders may be tempted to invest in high capacity communities as models or pilot projects, it is important to recognize that others can mobilize needed assets from within or without and be successful. Policy might suggest and support networks and organizations which can build capacity, especially in small, remote communities.



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #2: Existing Leadership / Prior Cooperation

Since the Health Forest Restoration Act, which establishes CWPPs as a planning activity, does not explicitly designate formal leadership for plan development, there is an **opportunity for multiple sources of leadership and multiple organizations** to get involved in CWPP development. All individuals and organizations can play a leadership role in terms of **mobilizing community participants and support**, and **gaining access to external resources**, such as technical information, GIS technology, financial assistance, and organizational support.

Local leadership can **lend legitimacy to the CWPP process** and **make the CWPP meaningful to community residents and agencies alike**. A local leader has to have **time, organizational skills, knowledge/understanding of participants, and be able to bring people together to define and focus on shared goals**. In well-organized communities, **start with the formal leadership in place**, such as a mayor, county commissioner, fire chief, church leader or property owner association president, to accomplish objectives. In communities with less existing organization or capacity, informal leadership tends to be more important than formal leadership. In unorganized communities, **identify and recruit local “opinion leaders”** who are known to be well-respected in the community as a member of the CWPP core team. **You don’t want to run the risk of alienating local leaders so reach out to them early in the CWPP process and invite them to participate at the start**. This may take several months of relationship building.

Examples:

- ◆ Local homeowners’ association leadership in the East Portal subdivision of Estes Park, Colorado was extremely critical in forming relationships with agency and fire authority players, providing access to local social networks, and assisting in gaining local support through field tours and work days. These individuals donated considerable time and energy because they saw value in the CWPP.
- ◆ In the Josephine County, Oregon CWPP, a combination of a visionary individuals with knowledge of county, a quiet facilitator with experience in federal agency, and an outside contractor with knowledge of fire planning moved the process along. Individuals from outside the community were seen as neutral parties in a conflict-ridden arena.
- ◆ In High Knob, VA the association business manager had a history of organizing communities and used those skills to begin the CWPP process. Her first step was to identify homeowners with specific relevant skills.

(over)





Different leaders in CWPP development can provide different assets to the process, from the overarching vision, to organizing meetings and technical work, and facilitate communications and information sharing among CWPP participants. Multiple leaders can be useful in a CWPP process by bringing **different strengths and styles, ties to different networks, and can support or relieve one another.**

Examples of the variety of roles that multiple leaders can play in one CWPP process are found in East Portal, Colorado:

- ◆ **The US Forest Service** district planner provided GIS mapping, wildfire hazard assessment info, information regarding federal policies, and the ability to coordinate fuels treatments
- ◆ **The National Park Service liaison** provided information regarding forest ecology and forest thinning techniques, as well as the willingness to coordinate treatments where their policies would allow
- ◆ **The district manager for the Colorado State Forest Service** provided information regarding forest ecology, fire behavior, and mitigation techniques, as well as access to grants and the ability to coordinate contractors; CSFS also conducted property site assessments
- ◆ The **Larimer County Wildfire Mitigation Specialist** provided information regarding mitigation techniques, conducted property site assessments, and gave access to grants as well as county mitigation crews
- ◆ The **local fire authority representative** provided information regarding mitigation techniques and wildfire preparedness and response, provided a meeting place, and conducted property site assessments
- ◆ **Active community residents** provided local knowledge and values, and assisted in sharing information with their communities through the use of local networks; they also helped gain local support





COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #3: Existing Networks

Networks are an important element of a community situation (See QG 1) and serve as mechanisms to assist us in achieving goals, whether we want to strengthen the community capacity, improve communication between wildfire suppression groups and homeowners, or coordinate fuel treatment projects. Networks of diverse people and organizations help communities achieve common goals by pooling resources and information. They allow relationships and trust to develop among the diverse people who will be important in carrying out the CWPP projects.

Consciously use, strengthen and build networks during the planning process, in order to create the capacity for planning and implementation. As you begin a CWPP, think about who can provide access to networks important to the CWPP process. As one volunteer fire department (VFD) chief pointed out, everyone on the VFD is connected to some part of the community or county. People can access their networks, thereby bringing important, unique information and resources necessary to planning and implementing a CWPP. For example, in Lake County, Minnesota, the facilitators invited individuals to the first meeting who represented different pre-existing networks, such as county officials, VFD, and regional wildfire suppression analysts. In Post Mountain, California, the (Hayfork) Watershed Research and Training Center had ties to many networks across the state that increased the group's access to resources. In Lincoln County, Montana, communities are achieving county CWPP goals locally through participation in the Firewise Communities USA program—linking them to communities across the country who are facing similar fire management challenges and giving them access to the vast Firewise toolbox. The Fire Safe Councils in California provide an established and powerful network that can facilitate development and implementation of CWPPs.

To strengthen community capacity, ***plan on involving local networks as well as networks that reach beyond the community.*** Local networks can bring legitimacy to the CWPP process, but being involved in the planning can also reinforce and support local ties that maintain capacity to work together for common goals. In Colorado, CWPP organizers started by working with local people to build networks that strengthened the community. Including people who represent broader networks, across the region or state, may bring in new ideas and resources to expand relationships for local folks as well as help with access to decisions and/or resources to support local activities. In Grizzly Flats, California and High Knob, Virginia, individuals who lived in the neighborhoods had many connections with planning, government agencies, county decision makers, fire protection etc. They used these networks to strengthen and link their plan to groups outside the homeowners' association.

Diverse networks will expand the contributions to wildfire preparedness planning, beyond the traditional fire suppression organizations, but be aware that all networks are not alike and ***some may be difficult to integrate into an open planning process.*** Since wildfire preparedness involves the whole community, you will have some participants who have never “worked” with wildfire issues! This can be a good thing because it brings in new ways of solving problems and integrates wildfire planning across multiple networks of people. In Lake County, Minnesota, political officials allowed information to flow from county government, while VFD representatives provided a flow of landscape and structure information from multiple VFD groups in the county. However, be prepared that some tightly organized networks may not want to sit down with others to plan, especially if they think wildfire preparedness conflicts with their primary goals. (over)





Including the widest diversity of networks may mean that *some networks of people and organizations will be less involved than others*, but all are important to improving community capacity and wildfire preparedness. In Taylor, Florida, the church network became more involved as the CWPP participants began an outreach program for homeowners, but they were less involved in selecting fuel treatment projects.

Regional planners and partners have an important role in supporting multi-network planning to tap new resources, influence decisions, and strengthen relationships that will sustain the wildfire preparedness through implementation and into the future. These participants can identify and help link people and organizations that are doing similar things in other communities or other counties. Josephine County, Oregon worked with an intermediary organization, Resource Innovations at the University of Oregon, which was able to link to state-level networks, bringing information to the local planners and sharing the new plans with regional networks. They can use their time to organize workshops, databases or meetings that benefit many CWPP groups. Or they may have the time and connections to bring important lessons learned and messages to decision makers at the state or federal level. Northern California Fire Safe Councils organized annual meetings during which the Post Mountain CWPP group was able to share their ideas and learn from other communities working on CWPPs.

Policy initiatives that encourage ***collaboration can strengthen networks that will generate resource streams and increase trust and mutual understanding about wildfire preparedness, as well as for other programs***. When networks don't exist, new networks can be organized. Once planning gets started, participants need to continue being aware of how they are using networks and whether they are helping to achieve the common goals. Participants have to continue to check that the quality of information remains strong, that relationships remain positive and focused on achieving common goals, and that expectations for feasible, successful projects are completed. To keep track of this, oversight and monitoring will be necessary. Otherwise, if CWPP projects languish, individuals and organizations will begin to withhold access to other net-

works, blocking resources and information flows, and reducing trust. Regional-scale funders have to be prepared for the expectations that arise from multiple networks supplying resources and information. In Lake County, Minnesota, all the participants used their respective organizational resources but expected to be able to leverage National Fire Plan funding to meet their longer term goals. In Josephine County, along with a common goal, resources, and political will, the CWPP group was able to bring in new agencies to work on wildfire preparedness, such as the Oregon Department of Transportation.

As one participant in Lake County, Minnesota said, after the CWPP he could “just pick up the phone and ask a question or for a favor”. This was a sign that the CWPP network was functioning for information and resource flows, supported by trusting relationships.





Quick-Guide #4: Scale of Wildfire Problems / Goals

The scale for the CWPP can be purposefully chosen for a strategic reason, such as aligning with jurisdictional boundaries (e.g., county) or ecological features (e.g., watershed). Other times, the scale comes from the ground-up when neighbors band together to work at their subdivision or Firewise community level. There is no “best” scale – if there is sufficient motivation and resources to work at a particular scale, a CWPP should be developed. Below are lessons learned from various cases we studied as part of this JFSP-sponsored research project:

Work at a scale that fits the community or ecological context, jurisdiction of participants and/or sponsors. The flexibility offered by the Healthy Forest Restoration Act allows for developing CWPPs where opportunity, motivation, and resources exist. County-wide or landscape-scale CWPPs can be tiered with subdivision or community-level mitigation efforts. Conversely, smaller-scale CWPPs can be linked to county-wide fire plans or regional fuels management plans. The linkage across scales is as important as the scale of any particular CWPP.

Examples:

- East Portal is not part of a fire protection district (FPD), so the CWPP was scaled toward communities located along a dead-end highway and community interest in involvement.
- Harris Park has twenty subdivisions located within one FPD, plus two subdivisions located in the neighboring FPD -- these two were included due to geographic proximity and local interest in being involved. The Harris Park CWPP is tiered to a broader regional strategy for fuels management and watershed restoration.

If the objective is to develop strategic fuels management plans, the County or landscape-scale may be appropriate. If your State Department of Forestry is leading the process, they are likely to favor counties; western counties may have Title 3 funds for county level CWPPs. County plans are most often strategic, prioritizing projects in terms of risk or coordinating hazardous fuel reduction. **Strategic planning is appropriate at a larger scale**, at least at the county and sometimes the watershed level. These larger scale plans allow for the opportunity to address problems on a landscape level, but may take longer to implement.

Examples:

- Josephine County’s Integrated Fire Plan involved GIS mapping of risk throughout the county and created new relationships among federal, state and county fire management officers.
- In Wisconsin, planning was done at the multiple township level, to address the forest system in the bottom third of the county. The participants’ objectives were to improve public safety and fuel treatment efficiencies on public lands within and around these two municipalities.
- In Lake County, MN participants focused the plan at a county landscape level. This will allow for coordinating fuels reduction across agency land boundaries (County, US Forest Service, MN Department of Natural Resources). However, problems with jurisdiction and funding have slowed implementation. (over)

Web Site: <http://JFSP.fortlewis.edu>





If the objective is to motivate homeowners to accomplish hazard reduction on private land, a small scale is advisable. These community-based plans reflect local values and fire department expertise; projects and emergency planning are more likely to gain the support of community members. Working on a smaller scale may produce quicker on-the-ground results in a limited area; however, links would need to be made to county- or landscape-level planning objectives.

Examples:

- In Larimer County, Colorado, CWPPs have been developed at the subdivision scale with willing homeowners' associations. Consistency across CWPPs is assured through a county fire plan, and CWPPs are also linked to landscape-scale fuels management strategies on national forest land. The Larimer County Coordinating Group consisting of county, state, and federal wildfire and land management agency representatives communicate on a regular basis to make sure priority treatment areas are connected in a way that maximizes impact on wildfire behavior and risk to homes, communities, and natural resources.
- In Virginia, the State Department of Forestry made a strategic decision to conduct CWPPs at the subdivision level in higher fire risk areas. High Knob Homeowners' Association was able to develop a plan and initiate implementation of priority projects within private and community land in less than a year.

CWPPs can be linked to larger or smaller scales, either by starting at the community level and moving up, or at a larger entity which then coordinates plans for smaller units. External coordinating organizations (e.g., Front Range Fuel Treatment Partnership, Larimer County Coordinating Group, and El Dorado, CA County Fire Safe Council) can sponsor neighborhood/community meetings and nest CWPPs in a larger scale project, but it is important to involve local leaders and fire departments.

The pre-planning phase can be an important stage for identifying and linking into larger-scale regional and statewide CWPP initiatives and coordinating groups. Contractors or coordinating organizations can reach communities lacking the capacity to do their own plans by facilitating community processes and building local capacity. They can then coordinate with larger landscape-level risk prioritization data bases, and fire mitigation and forest restoration efforts. And some CWPPs have gained efficiencies by coordinating with other planning efforts, such as county disaster mitigation plans mandated by FEMA.

Examples:

- ◆ Trinity County, California, held a series of community meetings sponsored by the Volunteer Fire Departments in order to gather community values at risk and to gather recommendations for county fire management planning efforts. These were followed by a two-day planning summit and summarized in a county-level fire plan sponsored by the Trinity County Fire Safe Council.
- ◆ Grizzly Flats, California is similarly nested in their county (El Dorado) Fire Safe Council plan.
- ◆ Lake County, Colorado's plan covers the entire county which is served by one FPD. Action items and risk assessments are listed for individual subdivisions rather than the entire county. There are seven subdivisions included as of the 2005 version, and the plan will be updated as additional subdivisions are included according to local interest in being involved.

Mechanisms need to be put in place for policy makers to understand and facilitate assistance and resources for CWPPs to ensure wildfire planning and mitigation across the landscape. Policy makers need to be able to identify and equitably distribute pools of resources to ensure that local-level CWPP efforts have what they need to link into larger, regional-scale efforts, but also to provide support for coordinating staff. Policy should also consider the implications of "citizen" alternatives developed by multiple interests collaborating on a CWPP and NEPA requirements (which may be required on cross scale, multi-ownership projects).

Example:

- ◆ In Ashland, Oregon, the CWPP was written to support a citizens' alternative to a federal land management project. This made coordination with CWPPs at other scales problematic.



Quick-Guide #5: The Role of the WUI in CWPP Planning and Implementation

CWPPs can provide the opportunity for local communities to influence fire management actions on adjacent public land by identifying the boundaries of their Wildland-Urban Interface (WUI), the area where urban lands meet or intermix with wildlands. The HFRA specifies that federal land management agencies must give priority to local fuels reduction projects identified in the WUI. Although we might anticipate that communities would readily take the step of defining their WUI boundary to take advantage of this policy incentive, this was not always the case, particularly in the East where land ownership patterns and population density make identifying the WUI more difficult than in the West.

Flexible policy leads to diverse CWPPs and WUI identification

Communities and states engaged in CWPPs are interpreting the HFRA with tremendous variation. CWPPs ranged from wildfire hazard assessments and fire plans completed pre-HFRA, to Firewise-linked plans, to stand-alone plans. Several CWPPs served dual planning purposes as Firewise Communities/USA plans, and/or FEMA hazard mitigation plans. Not surprisingly, the diversity in CWPPs led to a wide interpretation of the WUI. It appears that planning scale, the use of a planning template, and the participants in a CWPP process all influenced if and how the WUI concept was used in the CWPP. While some communities employed highly technical GIS models or risk assessments to define the WUI, others utilized local knowledge of participants, or simply depended on “common sense.” In Oregon, for

example, CWPP participants extended the WUI to watershed boundaries and moved in from there, using road systems or ridges as boundary lines. Many communities, such as Barnes and Drummond, Wisconsin, built on an existing definition that establishes the WUI as any place with one house per 40 acres. Other communities employed a much more vague designation of the WUI. In a review of 29 CWPPs from the Eastern U.S.,* the wildland-urban interface was used or addressed in just over half of the reviewed plans. Of those 15 communities that did identify the wildland-urban interface, there was a gradient of precision in how the WUI was defined and located. While some plans used the WUI concept but did not identify specific areas, others singled out specific neighborhoods, road intersections, or even used GIS to spatially define WUI areas.

Participant influence

Agency partners, local government and third parties can all influence use of the WUI concept in Community Wildfire Protection Planning. Government agencies at both the federal and state level play a vital role in CWPP development, especially in terms of the technical resources they bring to the table. Plans with public partners were more likely to define the WUI, especially in the eastern U.S., where public land is less prevalent. In western states, CWPPs more commonly utilized the WUI concept. In addition, state agencies often made strategic decisions about the CWPP scale and template, which ultimately influenced the use of (over)





the WUI. In terms of local involvement, fire departments provided invaluable local knowledge when it came to defining the WUI. Local government officials also contributed knowledge about the landscape, and in some cases provided political influence to accomplish things on a local level. For some CWPP groups, the presence of a third party planning group or contractor increased technical and GIS influence regarding WUI development, and brought in resources and expertise.

Influence of Scale and Templates

Use of the WUI in CWPPs appears to be influenced by both the scale of planning and the use of planning templates. The HFRA identifies three parties required for collaboration in a CWPP (in conjunction with federal agencies and other partners): the local fire department, relevant state forestry agency, and a local government official. The vague definition of a “local government official” has led to a wide range of planning scales. As a result, we found CWPPs at several planning scales: county-wide, multiple townships, cities / townships, and even at the subdivision level.

Depending on the scale, a “local government official” could range from a County Commissioner, to a town Mayor or Board member, to a Homeowner’s Association member, and in one unincorporated community even the local pastor. Larger-scale planning efforts, such as the Lake County, Minnesota CWPP, tended to use the WUI concept, while subdivision-level plans were less likely to designate a WUI. This may be because the entire community itself was a WUI; or in one community, the Homeowners’ Board did not want to designate WUI outside the community boundaries because of liability issues. It is not uncommon to see a hierarchical designation of the WUI in areas that have both a county-level plan, and smaller community-level plans within the county. The larger county plan includes a vague notion of the WUI, and the smaller communities then take on the task of identifying more specific areas. In addition to the impact of scale, some of the case study communities were using planning templates. A further review of CWPPs in the eastern U.S. found several templates in use for developing CWPPs. These templates determined if and how the WUI was used for planning.



*Note about these findings

In addition to 13 eastern case studies from the Joint Fire Science study, findings related to the WUI were obtained through graduate research that included an additional document review of CWPPs in the 23 states in U.S. Forest Service Regions 8 and 9 (Eastern U.S.). A total of 29 CWPPs were collected from 10 different states and reviewed for 1) scale of the plan, 2) participants in the plan, 3) use of the WUI concept, and 4) identification of WUI or interface areas.





Quick-Guide #6: Assessing Community Resources for Collaboration

Collaboration can be thought of as a process of leveraging and pooling the resources of diverse individuals and organizations to achieve goals that cannot be achieved alone. Mitigating wildfire risk to communities is one such goal. The need for collaboration is expressed in the Healthy Forest Restoration Act of 2003, which identifies Community Wildfire Protection Plans (CWPPs) as a mechanism to enable collaboration among interested and affected parties.

Government entities have a long history of working together on wildfire planning, response, and suppression. However, collaboration between government agencies and communities on wildfire mitigation planning and implementation has been less common. The purpose of this document is to provide conveners of a CWPP process a systematic approach to assess community resources for collaboration and to match assessment information with collaboration opportunities and strategies.

What's going on in this community? Categories of community resources for collaboration and assessment questions:

• Past history and experiences with wildfire – can be a learning opportunity

- √ Has the community experienced a wildfire in the past 5 years?
- √ Is the community located in an area of high fire risk?
- √ What is the level of awareness and knowledge about wildfire risk?

• Community problem-solving efforts focused on natural resources in general – Many communities have existing collaborative efforts or organizations focused on natural resource issues, from improving rangeland and watershed health to managing invasive weed species to forest conservation issues.

- √ Name of group, council, or organization and contact information
- √ Regular meeting schedule?
- √ Newsletters? Membership list?

• Firewise Community designation – cadre of landowners already aware of wildfire risk and committed to defensible space

- √ Does the community have neighborhoods with FireWise designation?
- √ Have there been defensible space education initiatives in the past 5 years?
- √ Are there local (e.g., county) ordinances requiring firewise construction or defensible space?

• Local institutions focused on wildfire

- √ List existing government institutions and coordination efforts around wildfire response and mitigation. For example, federal and state government offices, rural fire protection districts, volunteer fire departments, county emergency services, citizens' task forces, and intergovernmental wildfire coordinating groups, among others.
 - √ Name of group, fire co-op or emergency response team
 - √ Who are the key contacts?
- (more)





• Homeowners' Associations – These and other neighborhood groups are already organized for taking collective actions in neighborhoods.

- √ Names of groups and contact information
- √ Regular meeting schedule?
- √ Newsletters?
- √ Regularly scheduled clean-up or work days?

• Leaders – “spark plugs” that can recruit participation and lend legitimacy

- √ Names of leaders and contact information
- √ Interest and availability to engage in CWPP development?
- √ Particular skills that may contribute to the effort, e.g., grant-writing, networking and recruiting, computer, etc.

• “Sense of place” values – Most community residents hold deep-seated values for why they live where they do, especially in wildland-urban interface areas. These may include, but are not limited to: family history, land-based livelihood, desire for privacy and to “get away from it all,” a preference for a rural lifestyle, proximity to recreation and wildlife, aesthetics, and affordability compared to urban areas. These can be elicited through questionnaires, focus groups, or simply informal interviews with community leaders and residents.

- √ List of primary social values
- √ Places particularly important to these values
- √ How these values may be affected by wildfire

• Community profile: Communities are not homogenous groups of people. Understanding the different segments of a community’s population can identify which groups may be more at risk of wildfire and how to recruit residents to participate in CWPP development.

- √ What is the make-up of the community in terms of age, household income and education levels, family structure, racial and ethnic diversity, population growth, and other socio-economic and demographic information using Census data?
- √ How might this information assist or hinder your planning efforts?
- √ Are there special needs individuals or families who will be especially vulnerable to wildfire?

• Community infrastructure: The physical resources of a community are essential to understand, especially to prepare for a wildfire event. The level of response capacity can be an educational tool to instigate residents to participate in CWPP development.

- √ Transportation infrastructure and ease of moving people during an emergency
- √ Water and power supplies
- √ Emergency response capacity
- √ Remoteness and difficulty of access during a wildfire event (more)



PROCESS



• **Government agency personnel living in local community** – These individuals may bring knowledge of ecological conditions, an in-depth understanding of fire behavior and risk, and are connected to community members.

Retired government agency staff are likely to have time and interest to devote to a planning effort.

- √ Names and contact information
- √ Opportunities to recruit community members, e.g., training for ecological monitoring or a “buddy system” to pair an agency person with a community leader to bring to the CWPP process.

• **Education and research institutions** – A local university or college can be a source of scientific, technical, and facilitation resources.

- √ Names of key individuals and contact information
- √ Tribal and woods workers’ organizations can be sources of traditional and local knowledge about natural resources, fire management and use.



What can I do with what I have? Matching available community resources with collaboration opportunities and strategies? A community resource assessment can provide a CWPP organizer with a good idea of where a community is in terms of “readiness” to collaborate on a CWPP. There is a high degree of subjectivity to rating a community’s readiness. For the purposes of planning collaboration opportunities and strategies, we will use a simple rating system of low, medium, and high. These are some ideas for how to proceed:

For a low resource community:

- Bring in an “intermediary” – an individual or organization who can help convene, organize, and facilitate dialogue among residents and agency personnel.
- Start small – focus where there is agreement and shared knowledge.
- Find your strong and trusted leaders – e.g., VFD chief.
- Look to a larger scale/next level for help such as county Fire Safe Council, county emergency planning or planning office.

For a medium resource community:

- Assess what is lacking. If it is trust in natural resource managers – find personnel who have worked well with the community, OR develop a set of ecological principles all can agree on, OR get help in facilitation.

For a high resource community:

- Don’t rest on your laurels – a highly active and knowledgeable community is not immune to conflict. Also, some highly active leaders may be close to burnout and trusted agency personnel could be promoted out of place.



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #7: Crafting Effective Messages to Inspire Community Participation

One persistent challenge to recruiting community residents to participate in wildfire mitigation activities is persuading residents that doing so is in their self-interest. To the surprise and dismay of many wildfire mitigation specialists and land managers, community residents often don't respond to the messages specialists use. For example, one common way to incite residents to act is the threat of property loss from wildfire. Losing one's home to wildfire may be a concern to some residents, but, as many specialists will attest, many other residents are ambivalent to the prospect.

One way to think about this issue is that wildfire specialists, land managers, and community residents have different frames of reference for how wildfire will affect the community. Understanding the diversity of frames that community residents have can better help specialists recruit community residents.

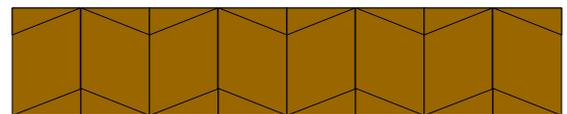
Findings from social science research sponsored by the Joint Fire Science Program indicate that there are several different frames that can be effectively used to recruit community residents. These include:

Personal safety: In many wildland-urban interface communities, overly dense forest conditions, fire suppression, and poor road access pose serious threats to residents' safety during a fire event. While many residents in these communities expect emergency response services to protect them from fire, specialists have the opportunity to educate residents about how these conditions would compromise wildfire suppression and evacuation and, therefore, the safety of homeowners. On-site neighborhood tours provide an opportunity for specialists to identify which homes, if any, will be defended by firefighters.

Loss of property: The prospect of losing one's home and valuable personal belongings can be a strong motivator to act. Fire behavior models, in particular, can demonstrate how properties might be affected in the event of a fire.

Privacy: Many people move into the forest for seclusion and privacy – to “get away from it all.” Removing trees for wildfire risk mitigation can compromise these values, leading to residents' resistance and opposition. It is important for specialists to understand this sentiment and work with homeowners to examine the trade-offs between leaving overly dense stands and the possibility of having those stands burn in the fire. Photographs of homes standing amidst a charred landscape can be effective in getting residents to rethink their conception of privacy once the trees are gone.

What is a “normal” forest: Many people living in the wildland-urban interface moved there recently. What they see out their dining room window is often regarded as the way things always were. If available, historical photographs of forest conditions prior to widespread human settlement and fire suppression can be effective in reframing residents' understanding of what constitutes a “normal” forest adapted to fire. (over)



Sense-of-place: A wildfire event can be a severe disruption to an individual's family and/or cultural history and values in the place they live, work, and play. Many of these sense-of-place values may never be replaced after a wildfire. Residents can be encouraged to identify and explore these values vis-à-vis wildfire when identifying values-at-risk in the CWPP, especially when meeting at a location within the neighborhood or community.

Personal responsibility: Society in general has grown accustomed to the prospect that, in a fire event, a government entity will protect their families, homes, and surroundings. With tightening budgets and the increased chances of large wildfires in many areas, government agencies simply lack the ability to meet these expectations. Similar to personal safety, specialists have the opportunity to demonstrate with on-site tours how emergency response services may not be able to offer these protections due to a variety of factors, and that a portion of this protection falls on the shoulders of the residents.

Community responsibility: An individual resident's mitigation actions may not be sufficient to protect values-at-risk if neighboring residents do nothing. Using on-site tours, GIS maps, and fire behavior models, specialists can demonstrate how the effectiveness of wildfire mitigation increases when all homeowners conduct mitigation activities.

Protection of natural values: People move into the forest not only to "get away from it all" but to live in close proximity to natural settings and resources. Forest scenery and wildlife are two natural values community residents often express as primary reasons why they like living in the forest. Specialists can draw on post-wildfire photographs and studies documenting the impact to local wildlife. Specialists should also accentuate potential positive post-wildfire effects on regeneration and wildlife to provide a complete picture of wildfire effects.

Funding: When a community has a CWPP, it generally increases the opportunities for funding through grants and assistance programs to implement projects. Specialists can provide a list of potential funding opportunities and dollar amounts to residents who may be interested in taking mitigation actions, but may feel inhibited by costs.

Some strategies to improve the effectiveness of framing messages to motivate community residents include:

Conduct a community assessment: Questionnaires, focus groups, or individual interviews can produce information about the suite of values residents have for living where they are and form the basis for values-at-risk in the CWPP. This information can also generate ideas of what frames might be most effective to motivate residents.

Develop a communications strategy around the messages and frames: Identify individuals who can communicate these frames to different segments of the community, capitalizing on the relationships and networks these individuals have within the community. HOA leaders, fire chiefs, county extension agents, and state and federal agency personnel may be contributors to developing and implementing a communications plan.

Identify where residents can plug into the CWPP process: Opportunities include identifying values-at-risk, prioritizing treatment areas, community education, and implementation coordination among fellow residents.

Web Site:

<http://JFSP.fortlewis.edu>

COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #8: Participant Roles and Functions

POTENTIAL PARTICIPANT ROLES IN THE COLLABORATIVE DEVELOPMENT OF COMMUNITY WILDFIRE PROTECTION PLANS

Developing a Community Wildfire Protection Plan (CWPP) is a collaborative effort among government entities, and between government entities and interested and affected non-governmental interests, especially local community residents. One way to think about collaboration is that it is a process to leverage the capacities of a diverse set of individuals to achieve a goal that could not be achieved when individuals work alone. What types of collaboration capacities are associated with CWPP development? How does this leveraging of collaboration capacities actually occur?

Findings from social science research sponsored by the Joint Fire Science Program indicate that participants in CWPP development play critical roles in combining their respective knowledge, skills, and resources to produce actionable plans that could not have been achieved by working alone. These roles include:

Leadership: CWPP development relies on highly motivated individuals who have a systems view of how the pieces fit together in a CWPP. These leaders span all affiliations, from federal, state, and local government agencies to community leaders and activists, such as county commissioners and HOA representatives. A diverse, representative CWPP “core team” can be well-connected to many different organizations and social networks within the community and outside the community, and can motivate others to participate, reach out across organizational, philosophical, and jurisdictional divides, and quickly assimilate new information to solve problems.

Fostering collaborative learning: CWPPs are working plans that bring together a number of complex factors, such as fire behavior, fire risk assessment, community values-at-risk, and working across ownership boundaries and organizations. This often requires CWPP participants to learn about factors of which they have limited knowledge or understanding, and to educate others about factors of which they have expertise. CWPP processes invested in mutual learning have a better chance of being supported and implemented by the local community. Effective promoters of learning come from state forestry agencies, county offices (Cooperative Extension Service, emergency services, fire chiefs), community leaders and activists, and institutions of higher education.

Facilitating communication: CWPP development requires consistent communication among government entities and non-governmental interests. Because CWPP development is often through a team effort, someone or some system is necessary to facilitate communication across the various participants involved in CWPP development. All participants play a role in ensuring communication lines are open and active. (over)

Web Site:

<http://JFSP.fortlewis.edu>



Uncovering community values-at-risk information: Central to a CWPP is the identification of community values-at-risk – those attributes and values important to community residents that would be threatened in the event of a wildfire. Obvious values include life, structures, road and power corridors, and water supplies. However, there may be other community values that need to be captured in order to build community support for, and understanding of, the CWPP. Community leaders such as HOA representatives, elected officials, and community non-governmental organizations are particularly effective in eliciting these values.

Locating financial resources: CWPP development does not require an enormous expenditure of resources, but it does require an investment. Depending on the situation, funding may be necessary for a coordinator or facilitator, consultants to compile technical information and/or geographic information system (GIS) databases, and community meeting facilities and supplies. Federal, state, and local governments are most connected to available sources.

Recruiting participation: Community leaders can be a valuable asset to connect residents to the CWPP process by crafting messages that appeal to their values and interests. Local government participants, such as a rural fire chief or a county fire specialist, can also serve this role.

Linkages to other plans: CWPPs are often tiered to county fire plans, multi-county mitigation strategies, state mitigation strategies, and, in certain situations, public land management agencies' strategic plans. Coordinating plans and priority treatment areas is essential to modify fire behavior across the landscape and ensure cohesive response strategies during fire events. Federal, state, and local governments are typically able to see the landscape view of these linkages.

Scientific and technical information:

Information about fire ecology and behavior, vegetation conditions, structural ignitability, and wildfire response is essential to crafting an effective CWPP. GIS tools can greatly enhance analysis of risk, prioritization of treatment areas, and event response. Federal and state agencies generally have access to scientific information, with cooperation from research institutions. County offices and fire protection districts also bring technical information about structures and roads that contribute to CWPPs. GIS capabilities are spread across federal, state, and county agencies, but it is often necessary to rely on consultants to compile and organize GIS information.

Some strategies to assess and assign collaboration roles and functions in CWPP development: In our research, CWPP participants assumed collaboration roles ad hoc and opportunistically as needs arose. However, the lessons learned from the research can streamline the assessment and assignment of these roles. Some strategies include:

Conducting an inventory of the human, informational, technical, and financial resources available to complete and implement the CWPP.

Identifying human, informational, technical, and financial resources that are needed to complete and implement the CWPP.

Creating a role matrix that identifies what individual(s) and/or organization(s) will be responsible for bringing available resources into the CWPP process and for locating needed resources. Included in the matrix are timetables.





Quick-Guide #9: Key Components of CWPPs and Templates

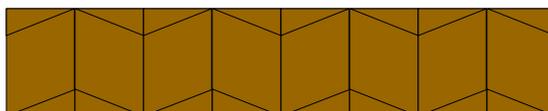
The Basics: From the perspective of the Healthy Forest Restoration Act (HFRA) <http://www.fs.fed.us/spf/tribalrelations/Policy/PL%20108-148%20HFRA.pdf> CWPPs are defined by three minimum or required characteristics, the first focusing on process and the other two on content:

- ◇ *Collaboratively developed by interested parties and federal land agencies;*
- ◇ *Identifies and prioritizes areas for hazardous fuel reduction;*
- ◇ *Recommends measures to reduce the ignitability of structures.*

Although obvious to many practitioners who have been working with CWPPs, these characteristics necessitate bringing together a set of participants who will be capable of establishing areas of agreement both on private and public lands, mobilizing resources, and taking strategic action to reduce catastrophic wildfire impacts. HFRA identifies a minimum of three players to fill the collaborative element of the CWPP: local government and leadership, representing property owners and community interests and values; the local firefighting organization; and the state forester who often has primary responsibility for the overall health of non-federal forest lands, including fire management. Federal land managers participate only to the extent requested by the local community—in some communities this has meant that a federal land management agency has provided the leadership to initiate the CWPP, but in other communities federal land managers have been asked only to review the final document.

With a core group of these key leaders, the wildland-urban interface (i.e., the spaces and boundaries where settled communities exist alongside more open forested and shrub lands) can be identified as a critical area of wildfire risk. Within this space a set of hazardous fuel reduction objectives and projects can be selected. And finally, actions can be identified to reduce the level of ignitability of structures in adjacent neighborhoods/subdivisions, and among key community buildings such as hospitals, public power facilities, schools, water treatment plants, etc.

Key Components: With the three HFRA elements as the fundamental guidelines, there is often a question -- what does a CWPP look like? What are its key components or parts? As the Healthy Forest Restoration Act has been implemented in hundreds of community situations and various wildfire risk environments, there has been a considerable amount of creativity. This is in part due to the flexibility of HFRA and related guidance, but also reflects the very important collaborative objectives of communities of interests and local needs for fuels reduction and wildland fire management. (more)





While maintaining the community-based character of CWPPs is essential for their success, benefits can result from having a general guide identifying some of the key components. From a wide diversity of experiences, the following major components have been derived as a somewhat typical, comprehensive, and adaptable framework:

- ◇ *Introduction/local context/legal regulations and governance authorities*
- ◇ *Community and WUI descriptions*
- ◇ *Community assessments including risk/and response capacities*
- ◇ *Community mitigation strategies/fuels/structures/educations/policies*
- ◇ *Action recommendations and implementation/timeframes/resources*
- ◇ *Monitoring plan*
- ◇ *Declaration of agreement and concurrence among the collaborative partners*

The details included in each of these components will vary, depending on the needs of the community. Remember, this is a community-driven plan. Examples of possible details in the prime components are provided below:

| | | |
|--|--|--|
| <p>Introduction /Context/Authorities</p> <p><i>Geographic Area Descriptions and trends</i> <i>Relevant Wildfire Regulations</i> <i>Federal/State/Local Policies</i> <i>The need for the CWPP</i> <i>Planning /coordinating group</i></p> | <p>Outline/Overview of the Community and WUI</p> <p><i>Community attributes</i> <i>Basic WUI description</i> <i>Map of the area</i> <i>Relationship to the larger context/county</i></p> | <p>Community Assessments</p> <p><i>Fire regime and fuel types/ ignition risks</i> <i>Community values and attributes - e.g. housing, business, and public infrastructure</i> <i>Recreation areas/ Watersheds/Wildlife</i> <i>Historic/Cultural</i></p> |
| <p>Community Mitigation Measures</p> <p><i>Strategies</i> <i>Action plan and priorities</i> <i>Projects identified</i> <i>Treatment approaches</i> <i>Wildfire prevention/ education processes</i> <i>Defensible space actions to reduce structural ignitability</i> <i>Land use policies</i></p> | <p>Action Plan</p> <p><i>What action will occur, where it will occur, how, how often, who is responsible, and costs if known</i></p> <p><i>Usually prepared in the form of a spreadsheet</i></p> | <p>Monitoring</p> <p><i>Annually review of the action plan to determine progress/status on process and content</i> <i>Look at both the collaboration and the work accomplished.</i></p> |

Collaboratively gain support and approval from the state forest service, the fire department, and the local community jurisdiction.

(more)

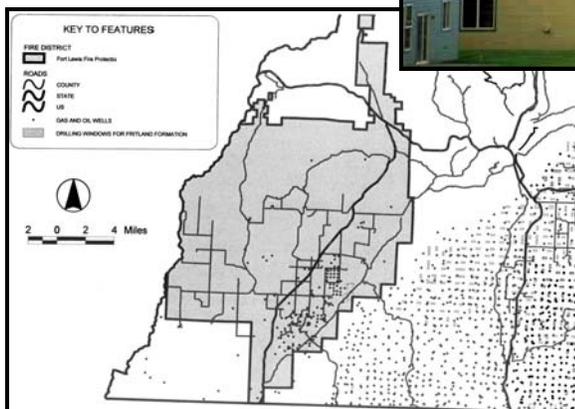
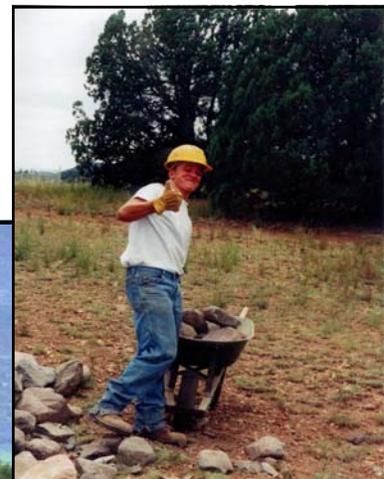


PROCESS

From the outset, the collaborative planning process will best succeed with clearly stated goals such as *to improve fire prevention and suppression, reduce hazardous forest fuels, restore forest health, promote community involvement, recommend measures to reduce structural ignitability, and encourage economic development in the community.*

Assembling a core leadership group, involving community residents and leaders, and gathering the information about wildfire risk and key community values helps establish a learning and decision-making process. Through this process the high risk wildland-urban interface is identified, along with specific projects and actions that will reduce hazardous fuels, reduce structural ignitability, increase community awareness, focus resources for priority projects, and strengthen capacities for achieving a variety of goals, including but not limited to wildfire management. With a range of projects and actions prioritized and a monitoring plan in place, leaders and representatives of the community, government, and land management agencies will find it relatively easy to declare their support and commitment to plan implementation.

It is worth looking at other CWPPs, general process steps and templates, and more detailed guidebooks that describe key components and the rationale for their inclusion. For a helpful link in this regard go to **Quick Guide # 17** for a list of examples of plans and other resources.

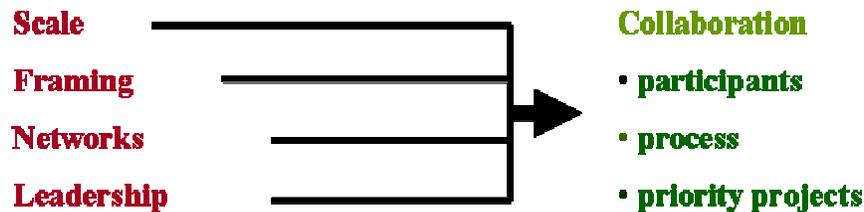


COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #10: Factors that Influence Collaboration

Collaboration involves diverse stakeholders working together to resolve conflicts or achieve goals that cannot be achieved alone. In community wildfire protection plans, there are a number of factors that influence the collaborative process, in terms of who participates, the process itself, and the types and priorities for projects.



Scale

A CWPP must be “agreed to by the applicable local government, local fire department, and State agency responsible for forest management...” (HFRA 2003). This applicable local government term has been widely interpreted when it comes to the planning scale of CWPPs, and ultimately impacts the collaborative process. There is no best scale to work at: pick the scale where you can make something happen! Consider the tension between:



(over)





Framing

Framing really means how people understand the wildfire problem. In terms of CWPPs and collaboration, the framing of the wildfire issue in a community can have a strong influence over who is invited to participate. To avoid excluding participants, you must evaluate the boundaries of your frame when you begin a CWPP.

Some common frames that were identified in our case study communities included:

- ◇ Safety: focused on access/egress, evacuation, and improved suppression efforts; included emergency management and land management agencies
- ◇ Fuels Reduction: project priorities included prescribed burning and mechanical thinning; these plans required strong leadership from federal and state land management agencies
- ◇ Restoration and Watershed Protection: projects may focus on forest health and require cooperation from multiple levels and groups including environmental interests.

Networks

The networks brought into a CWPP process can also influence the collaborative process, especially the ability to access additional resources and bring in the right people.

- ◇ Start with good relationships and pre-existing networks.
- ◇ Trust across networks leads to increased openness to share information and willingness to consider future collaboration.
- ◇ The networks pulled into the CWPP process influence who is involved and the resources available.
- ◇ Not all networks need to be involved to the same degree. Some can be kept in the CWPP process through information links alone.
- ◇ Individuals who represent two networks might be an efficient means to strengthen how different networks can support the CWPP.

Leadership

Several different aspects of leadership influence the collaborative CWPP process. In particular, local leadership is important, as local leaders can provide heart, goals, and links to others, and act as “spark plugs” or “cheerleaders.” Local leaders can also provide:

- ◇ legitimacy – in terms of collaboration, local leadership can legitimize the plan in the eyes of the community and bring in additional support and interest;
- ◇ local knowledge – volunteer fire departments, local officials, and even local field staff bring local knowledge to the table; and
- ◇ political influence – without local leadership, a CWPP may lack political influence and the will to get things done.

Another important aspect of leadership is the idea of intermediaries. An intermediary is an individual or organization that brings networks and resources to the CWPP process, and bridges gaps in information and resources. Often times, an intermediary shares knowledge and experience with multiple CWPPs. In some of our case study communities, an intermediary was a true neutral third party, such as a quasi-governmental planning commission or a paid consultant. In other communities, key participants in the CWPP played critical leadership and intermediary roles and functions at different steps in the process.



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #11: Potential Resources & Authorities Brought by Government Participants to the Collaborative Process

CWPPs provide the opportunity for **all levels of government to bring to bear their respective resources and regulatory responsibilities to collaboratively address the wildfire threat** both within the WUI and across the landscape. This is particularly important in the West where protection of communities from wildfire often depends on actions taken on neighboring federal lands. Comprehensive CWPP planning processes recognize the multiple roles of government and ensure that representatives participate in some way.

- ◇ Fire prevention, structure protection, and often wildland fire initial response are the domain of local fire departments (city, county or volunteer).
- ◇ Education and outreach to residents are conducted by city, county and/or state staff (e.g., fire or forestry departments, county planning departments).
- ◇ County and state governments deal with zoning, ordinances and planning.
- ◇ Small-diameter and other by-product utilization can be incorporated in local economic development planning (city, county or state).
- ◇ Forest restoration and mitigation goals are best accomplished by government agencies (federal and state, sometimes county) with the greatest mitigation resources and largest acreage, although all managers should be involved in order to work across ownership boundaries.
- ◇ Federal and state agencies ultimately command and staff large wildland fire suppression.

In our case studies, government agencies contributed the following resources to the CWPP **collaborative process**:

- ◇ Josephine County initiated the plan and provided leadership (county planner and contract intermediary), funding (Title 3 funds), GIS technical support, county emergency staff and strategic information, (e.g., evacuation routes).
- ◇ The City of Ashland provided leadership (Ashland Forest Lands Commission, Contract Forester, and Fire Chief), facilitation, city government liaisons to the FS (given perceived FACA constraints), technical assistance (GIS and evacuation planning), and staff (Forest Resource Specialist and Outreach Coordinator).
- ◇ The Hayfork District Ranger and staff attended Post Mountain community meetings to answer questions and allay doubts regarding fuel reduction in/near the subdivision.
- ◇ Lincoln County, Montana used Title 2 funds to contract with a retired FS employee to lead the CWPP process. He and an employee from the Montana Department of Resources and Conservation conducted outreach and secured state and federal funding for fuel reduction. The County RC&D administered these grants and contracted with foresters to work on private land.
- ◇ In two of the Colorado cases, the USFS contributed maps and GIS technology, as well as information regarding forest ecology, fire behavior, and wildland fire risk assessment. In addition, they expressed a willingness to design fuel treatments that complemented private land treatments planned in the CWPP.



(over)

When certain governments were absent or did not participate actively in CWPPs, their particular piece of the wildfire puzzle was missing. **These are observed gaps or missed opportunities** which provide learning opportunities for others:

- ◇ Because Post Mountain has no local government, the leadership gap left by its departed VFD chief has threatened the sustainability of the CWPP effort.
- ◇ The perceived inability of the federal government to participate in the Ashland CWPP and citizen alternative created an adversarial situation which engendered mistrust and miscommunication.
- ◇ Because the Kootenai National Forest did not take ownership of what they saw as the County CWPP, some rangers actively resisted CWPP-recommended fuel reduction across private and public land in their districts.
- ◇ Because much of Josephine County is unincorporated, local governments lacked the capacity to assist in outreach efforts, and only one community CWPP has been nested within the integrated county CWPP.
- ◇ Because county officials and state forestry agencies were not involved in either the Ashland or Post Mountain CWPPs, potential jurisdictional authorities such as zoning, and access to state resources and networks were limited.

The following strategies were used to motivate federal agency participation:

- ◇ Include retired personnel in positions of leadership or as key players.
- ◇ Invite personnel interested in accessing new networks or gaining leadership opportunities.
- ◇ Reconcile various agency data sets so that analysis can be coordinated and applied at a landscape level.
- ◇ Frame the wildfire issue in ways that mesh with federal priorities:
 - Fire mitigation and enhanced forest health across ownership boundaries
 - Increased capacity for stewardship projects
 - Better access to federal land (for treatment or suppression) across private land in the WUI
 - Building relationships, trust and credibility

In some community contexts, particular levels of government may not find it useful to be involved:

- ◇ If the CWPP is exclusive to a subdivision which is not adjacent to public land
- ◇ If the community history of environmental conflict has eroded trust and there are no functional relationships or networks for state or federal government personnel
- ◇ If there is little wildland-urban interface.

In a variety of settings and across different jurisdictional scales and boundaries, the need for governments to play strong leadership roles in CWPP development and implementation is evident. Their lack of Participation often creates gaps that limit cross-boundary wildfire risk reduction, and can often lead to fragmented approaches with regard to community education, land use planning, statutory means of fire protection, and inter-agency cooperation.



A banner with a background image of a wooden cabin in a forest. The text "COMMUNITY WILDFIRE PROTECTION PLANS" is written in white capital letters across the top. Below it, a green horizontal bar contains the text "Enhancing Collaboration & Building Community Capacity" in white.

COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #12: The Diverse Benefits of CWPPs

Communities and agencies enter into the Community Wildfire Protection Planning (CWPP) process anticipating certain benefits and outcomes. The two most anticipated outcomes were reducing the overall risk of wildfire and increased access to funding. However, the CWPP process resulted in a number of unanticipated benefits to many communities, agencies, and individuals involved. Below we describe examples of anticipated and unanticipated benefits. More detail on two of these benefits, developing new capacities and building a learning community can be found in Quick Guide 14 and Quick Guide 13.

Reducing wildfire risk and access to funding

One of the expected benefits of a CWPP included reducing wildfire risk through fuels management and infrastructural improvements.

Examples:

- ⇒ In Auburn Lake Trails, California, we were told that “*Something was actually getting done*” — fuels management around homes, fuels management on association land, shaded fuel breaks, and improved street/house signage.
- ⇒ For the High Knob Owner’s Association in Front Royal, Virginia, the CWPP enabled the association to trim back vegetation from roads, widen cul-de-sacs, host a community fuel cleanup day, and obtain 911 number signs for many homes in the development.
- ⇒ In Barnes and Drummond, Wisconsin, the Chequamegon-Nicolet National Forest conducted a fuels treatment and thinning project adjacent to the town of Drummond, and removed downed fuel from a wind storm.

We often heard that communities developed a CWPP because they felt that in the future federal funding, in particular, would depend on a CWPP being in place. Several communities offered examples of how the CWPP process had helped them access different funding sources for fuels reduction.

Examples:

- ⇒ In Harris Park, Colorado, the local fire authority worked out an arrangement with the Colorado State Forest Service where they applied for a 50/50 matching grant. The fire authority provided the in-kind match by performing the labor and treated private land in one of the high-risk subdivisions.
- ⇒ In Post Mountain, California, a great benefit was the Watershed Research Training Center (WRTC) joining with The Nature Conservancy (TNC) to become a Fire Learning Network Project. “*It really helps us get some other resources and do some coordination across bounds like this.*”
- ⇒ In 2005 Josephine County, Oregon, received \$500,000 in funding from the National Fire Plan and completed 500 acres of hazardous fuels reduction projects in three communities. The county also received additional funding from Title II of the Rural Secure Schools Act to fund defensible space for low-income and elderly or disabled citizens in the county.

(over)

OUTCOMES

Improved community capacity

We frequently heard about the social benefits of developing a CWPP, in fact social benefits were the most frequently cited benefits of the CWPP process. One of the strongest benefits seen across multiple case study sites was new or improved relationships that resulted from the CWPP process, either between agencies, or within a community. As one CWPP participant said: “...just to show that it could be done, and we could communicate as a group, and you could take agencies that have different focuses, bring them together and everybody come through it okay. I think that it proved that there's a great working relationship in this part of the world.”

In many communities, CWPP participants gained a greater understanding of each others' interests and increased knowledge of wildfire and wildfire management, forming 'knowledge communities.' In Harris Park, Colorado, community members who interacted with the fire department or Colorado State Forest Service are now able to speak knowledgeably about forest ecology and fire defense. At the same time, agency representatives speak with an understanding of community values and concerns.

CWPPs created potential to reach other community goals, and we heard about several different communities who were able to reach additional goals because of capacities created during the CWPP process. In Grizzly Flats, California, the community capacity that resulted from developing the CWPP allowed the community to move forward with plans to build a community center.



CWPPs led to a common goal and common message that community members and/or involved agencies could agree upon. In some CWPPs, one of the main benefits for all the participants was an agreement on actions that need to be taken together. “I think having the agencies come together and realize that Taylor is a vulnerable area...and that they are now all working together to protect it.”

An increased awareness of the wildfire problem was identified by several communities as a benefit of the

CWPP process. CWPP participants in western states gained a greater understanding of wildfire risk and how to mitigate it. They know that the agency and fire authority players can provide resources and access to funding to assist them; they understand how to implement defensible space, and what thinning entails; and they know how to help the fire authorities help themselves. All of this knowledge creates an increased capacity to protect their values from wildfire. In the Eastern U.S cases, where the perceived fire risk is lower, one of the most important benefits was understanding that there *was* a wildfire problem. Participants in the CWPP process in Lake County, Colorado, used their new knowledge and awareness of wildfire risk to spread the word to other communities that were not involved in the Lake County process.



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #13: Learning Community

Creating Communities of Understanding: Social Learning in Eastern CWPPs

Social learning focuses on the learning that occurs within a social context, such as during the development of a CWPP, and is based on the fact that people learn from one another. Social learning can lead to the development of learning communities. Learning communities are places or processes where people come together to share knowledge which allows them to find common ground to work together in an area of interest—in this case, wildland fire management. We found that community wildfire protection planning often led to the development of learning communities.

Coming to a Shared Understanding of Wildfire in CWPP Groups

CWPP groups report success in coming to a shared understanding of wildfire and wildfire management through the planning process. By providing a forum where multiple stakeholders can meet and discuss face-to-face, HFRA fosters learning and common understanding among CWPP participants. Groups enhanced their knowledge of local ecological and wildfire issues such as hazardous fuels management and identified locally-specific causes of wildfire.

Additionally, CWPP groups found that they better understood institutional and social systems surrounding wildfire after the planning process. For example, agencies learned about each others' roles, limitations, and capabilities in terms of wildfire management. This understanding helps CWPP participants identify how they can work together and coordinate action in the future.

Fostering Learning in CWPP Groups

Certain types of activities aided learning within CWPP groups. Discussing or creating maps of the planning area as a group helped participants come to a shared understanding of their local landscape. Additionally, conducting a group risk and asset assessment process facilitated collaborative identification of hazards to mitigate and values to protect. CWPP groups that went on joint field trips and site visits found that linking their planning to on-the-ground examples was crucial to group learning.

Maintaining an open atmosphere for group discussion was also important for fostering learning within CWPP groups. Additionally, groups that had a designated and experienced facilitator found that helpful in supporting dialogue and encouraging common understanding among planning participants.



Linking Learning to Action

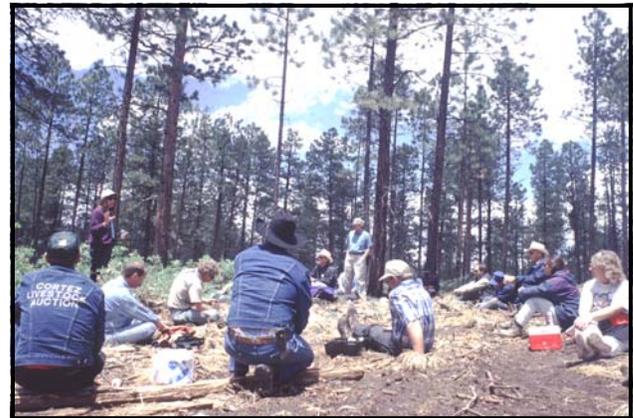
By engaging in a learning-centered CWPP process, groups found they were able to accomplish action together that they would not have been able to achieve individually. CWPP groups identified weaknesses in their community's wildfire management and created the political will to address it by having leaders in the room. Some groups were able to discover and secure funding sources that otherwise would not have been available. Finally, some groups found ways to complete cross-tenure fuels reduction projects by sharing information and learning about other agencies' fuels plans and approaches. Fostering learning and creating shared understanding serves as the basis of a CWPP group's future action supported by ongoing communities of understanding.

Extending Learning Beyond the CWPP

CWPP participants can add value and expand the impact of their planning process by keeping their home organization or agency updated about what they are learning within the CWPP process. Planning participants who communicated new ideas gained within the CWPP group to their agency colleagues reported potential changes and improvements in the way their organization conducts business. Additionally, keeping lines of communication open can help planning participants better represent their agency's interests. Finally, through their participation some groups found further ways to coordinate and work together beyond the scope of the CWPP. The communities of understanding formed in the CWPP provided a foundation for continued collaboration in diverse efforts.



For a copy of the complete article related to social learning, please contact Rachel Brummel at the University of Minnesota, brumm043@umn.edu



Firewise Council of Southwest Colorado

Keeping homes, properties and lives from being damaged and hurt by wildfire



www.southwestcoloradofires.org



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #14: New and Increased Capacities

The process of developing a community wildfire protection plan builds and improves the social capacity of a neighborhood, community or county to work together and get things done. Both the Western Governors Association (WGA) and the National Fire Plan (NFP) recognized the importance of building capacity for a comprehensive approach to creating more fire resilient forests and communities. The enduring outcomes of CWPPs will be not the plans themselves, but the capacity for change they build, the strategic opportunities they promote, the knowledge they create, and the connections among people and organizations they forge.

One CWPP participant stated it this way:

Really it turned out they needed to deal with or organizational capacity, much more than wild fire. Having stronger organizational capacity was ultimately going to help them address wildfire and every other vulnerability that community has.



Different communities start the CWPP process with different capacities

Prior to the Healthy Forest Restoration Act, communities with fewer economic or local government resources had more difficulty competing for National Fire Plan funding. The CWPP process has reached more of these communities, partly by working at the county scale, and has provided these communities access to resources (money, information, intermediaries) that allow them to develop a local CWPP that facilitates implementation of priority community or neighborhood projects. Communities with fewer assets mobilized internal strengths, especially their sense of mutual obligation (called by one county agency director the “brownie bank” method of reciprocity) and residents’ interest in forest stewardship. Resources in lower capacity communities that can be accessed to facilitate the CWPP process include local leaders such as VFD chiefs, networks access through community organizations such as water boards, or education opportunities at regular informal neighborhood events such as barbecues. Small or lower capacity communities are especially vulnerable if they lose even one local champion, supportive government agency staff or community-based organization leadership. In these communities it is particularly important to acknowledge and respect local culture and leadership.



(over)

Higher capacity communities aren't necessarily more successful in their CWPP processes and, in some higher capacity communities completing a CWPP, community capacity has not been created or strengthened. In cases where contractors were hired to write or implement a CWPP with little involvement from local organizations or community leaders, there was little or no change in social capacity, especially leadership or public trust. In other cases, conflict over forest management goals or distrust between agencies and organizations limited collaboration and collective action.

Building community capacity through the CWPP process

By working on CWPPs, community members draw upon, and in turn enhance, the constellation of human, social, political, and economic assets of their community. Collaboration for CWPPs can help build community assets as community members develop leadership skills and build ties with community organizations and government agencies. Through collaboration, they identify and address risk, develop a sense of common purpose, and pose an agenda for action. Community leaders involved in CWPPs help increase residents' understanding, responsibility and support for wildfire mitigation strategies, as well as work with contractors, researchers, and government leaders to provide access to information and financial resources. Demonstration projects, maps, assessments and field trips sponsored by CWPPs have not only enhanced residents' understanding of wildfire and ethic of stewardship, but their sense of community. CWPP participants reported a new sense of hope, trust and respect.

CWPPs that provide opportunities for residents to participate in neighborhood fuel reduction projects, emergency planning, and other risk mitigation activities are more likely to receive public support which, in turn, broadens the base of political support. Community leaders can serve as "ambassadors" for the Plan, advocate for federal and state forest management projects and policies, and assist in further public outreach. In contrast, CWPPs which are contractor or agency-driven with little community involvement, although acceptable or satisfactory to guide organizational programs and budgets, are not as likely to be embraced by the community.

Capacity was enhanced when CWPP process conveners consciously identified, strengthened and built relationships which in turn created the capacity for further planning and implementation. Once the core group was established, the circle widened as soon as possible; new members (e.g., federal agency fire mitigation specialists, local environmental organization members, and retired professionals with organizational or technical skills) were engaged in order to collect multiple capacities and perspectives. CWPP groups worked with regional planners and government partners, who could support planning, tap new resources, influence decisions, and help sustain the process. They also used informal systems, neighborhood networks and social events to bring a community together. Community members were recruited through multiple information-sharing methods: newsletters, bulletin boards, community meetings, demonstration projects, and cleanup days.

"We can't do new stuff alone, we can just do that same tired stuff that got us into this predicament. So only by working with the community folks that live here, only by constantly meeting and talking and hashing it out and doing little stuff at a time can that be done."
- Federal Mitigation Specialist





Quick-Guide #15: Implementation and Sustainability

Implementing the action plan of a CWPP is a long-term, multi-year endeavor. Therefore, sustaining community interests and participation needs to be a primary objective throughout the protection plan development process. Implementation and momentum can also be complicated or challenged by changing conditions such as:

- New and emerging players
- Shifting priorities for community and agency representatives
- Re-evaluation of risk criteria to improve the project prioritization process
- Changing the scale of plan objectives
- Developing biomass markets

In addition, implementation of a CWPP may place new demands on the process including:

- ◆ Findings ways to maintain project momentum
- ◆ Establishing a system to record fuels treatments
- ◆ Developing a process for monitoring projects
- ◆ However, a focus on implementation during planning helps insure that objectives are achieved. It helps to keep in mind several lessons we've learned about the CWPP planning as it relates to implementation: Successful wildfire mitigation occurs through long-term implementation.
- ◆ Collaboration builds multiple skills and abilities for community action.
- ◆ Maximize implementation via multiple wildfire issue definitions where appropriate; integration across neighborhood and landscape scales, including key community and agency participants among various social networks; and ongoing shared learning and educational awareness;
- ◆ Keep participants informed and engaged by strengthening continual accountability through monitoring.
- ◆ Sustaining implementation of CWPPs is the ultimate measure of the successes that can result from building and integrating collaborative abilities, relationships, and resources.

How can we sustain community and agency relationships and abilities through collaboration to address these and other objectives during long-term CWPP implementation?

Involve a wide variety of interests: Because community wildfire mitigation needs to be based on community interests, involving a wide variety of interests will pool and integrate needed resources, skills, and capacities. Among these interests are the following:

- Suppression and public safety
- Fuel reduction and fire risk
- Forest health
- Prevention education/Defensible space
- High priority community values
- Biomass utilization (over)



Address factors that contribute to collaboration: There are a number of collaborative factors that can significantly improve the overall level of interest and participation needed for long term CWPP implementation: Wildfire definitions based on multiple interests/concerns; planning scales that create regional strategies and local action; sharing knowledge through educational awareness processes; and community and agency leaders who bridge networks, organizations, and scales.

Issue definitions: Including a range of community's concerns and definitions about wildfire will determine what a CWPP will emphasize, who gets involved, and the extent to which it is "owned" by the community and agencies. An inclusive range of wildfire definitions (*sometimes called frames*) draw together various interests, networks of partners, and many types of resources. Multiple definitions or conceptual lens can broaden opportunities for improving safety for lives, property and communities; addressing forest health and land use patterns due to urban development; and biomass uses.

Scales for strategy and action: Regional- or state-scale networks tend to focus on landscape-level planning and projects, coordinating treatment responses, prevention education, and shared learning. Community, neighborhood, and county-scale networks tend to be action-oriented, stressing on-the-ground mitigation. Combining these approaches can produce a more balanced, productive, and sustainable range of mitigation projects.

Continued learning strengthens long-term implementation: Participants may begin by mapping values-at-risk, and proceed to organize technical resources; they also establish shared understandings of the wildfire problem, and heighten their knowledge of potential actions and available resources. Through these activities they create an expanded network of more capable and committed individuals and organizations (*sometimes called learning communities*).

Community leaders and organizations (sometimes called intermediaries): Key or intermediary individuals and organizations have contacts with many other communities, agencies, and jurisdictions; they play strong leadership and bridging roles, bringing in new ideas and resources. Most importantly, they possess the time and skills to organize the knowledge of participants and to push action toward on-the-ground projects.

Some Specific Suggestions to Maintain Implementation

Although this study focused on CWPP planning, several of our cases had begun to implement their plans and they were able to suggest steps that ease implementation:

- ✓ Establish implementation and monitoring committees;
- ✓ Set short-term, achievable goals;
- ✓ Hire or appoint a CWPP Coordinator;
- ✓ Continue to support the community participants through information sharing between agencies and communities;
- ✓ Embed into larger county-level CWPPs to gain guidance for landscape scale projects;
- ✓ Link to a county-level hazard mitigation plan to increase resource integration;
- ✓ Tie the CWPP to Community Firewise Plans to incorporate neighborhood prevention, education, and mitigation activities;
- ✓ Integrate the CWPP with federal or state wildfire resource management and fuel reduction plans to maximize WUI protection;
- ✓ Build biomass use to expand restoration options.



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #16: Community Based Approaches to Knowledge Transfer

Beginning in 2005, a joint research team from several higher education institutions and two US Forest Service Research Stations (<http://jfsp.fortlewis.edu/investigators.asp>) began a three-year inquiry into collaborative efforts to develop community wildfire protection plans (CWPPs) authorized under the Health Forest Restoration Act (HFRA) 2003.

This project, entitled *Enhancing Collaboration and Building Community Capacity*, is funded by the Joint Fire Science Program, created by Congress in 1998 as an interagency research, development, and applications partnership between the U.S. Department of the Interior and the U.S. Department of Agriculture. <http://www.firescience.gov/JFSP>

One of the project's five objectives was to transfer the practical knowledge gathered from the CWPP case studies to participants and stakeholders in community wildfire protection planning. The research focused on three areas which provided a framework for knowledge transfer:

- > The **community context** –addressing a range of community situations within which the CWPPs are developed.
- > The **process steps and collaborative methods** communities and managers are utilizing to produce CWPPs.
- > The **immediate and longer-term outcomes** of the CWPP, focusing on the strengths and capacities resulting from the shared collaborative work. (See chart on next page.)

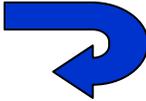
While the research team has shared its findings through traditional professional meetings and publications, a significant focus has been establishing a dialogue with diverse representatives involved in wildfire mitigation and protection via a series of workshops. These events strongly emphasized case study findings relevant to local and regional interest and needs. Significant portions of each workshop were allocated to small group discussion. Presentations and dialogue topics were chosen in cooperation with local representatives to best fit where workshop participants were in relation to the CWPP development process. (over)



Web Site: <http://JFSP.fortlewis.edu>

The community-based CWPP workshops were held September 14, 2007 in Eugene, Oregon, November 28, 2007 in Lakewood, Colorado, and March 18, 2008 in Rhinelander, Wisconsin. (See each workshop’s proceedings at <http://ifsp.fortlewis.edu/KTWorkshops.asp>.) Our intent has been to work closely with representatives of community and land management agencies to strengthen dialogue and networking within existing learning communities. At the time of the workshop, each region was working at a different place in the CWPP process or had different concerns. In Oregon, most communities had completed their first generation CWPPs, and the interests of workshop participants focused on CWPP implementation and second generation CWPPs. In Colorado, the state was driving the CWPP process, and the interest was in how to implement state goals and objectives at the local level. In the Lakes states very few CWPPs had been developed. Workshop participants were interested in how to initiate a CWPP process and “sell” the idea to potential stakeholders. Developing the content for these workshops was a significant challenge for the project team. In each case, research team members needed to go back to the case study data and analyses to find knowledge that would be most useful to workshop participants, given their particular stage in CWPP planning and implementation. The process forced the team to move beyond questions regarding how to move the science forward, to how to move communities forward. Workshop topics for each research area are listed in the figure below.

KT Concept Mapping

| Context  | Process  | Outcomes  |
|---|---|--|
| <u>Collaborative Capacities:</u> Community problem-solving history | Initiation approaches | Shared understanding of wildfire risks, WUI, etc |
| Previous involvement in wildfire issues | Entrepreneurship/ leadership/organizations/ intermediaries | Increased community awareness |
| Preparedness - working together - responsibility | Participant invitation approaches | Social learning |
| Capacity - networking | Representation/key partner roles/contributions | New/improved relationships |
| Perceptions of wildfire threat-framing | Decision-making process and criteria | Community capacity |
| <u>Community Resource Base:</u> Background capital and assets | Process design/use of CWPP template or not | Ability to achieve NFP goals |
| | Information sharing/content and process/learning Wildfire issue framing | Implementation potential Challenges experienced |

Content elements such as maps, guidebooks, directives, plans, and fire assessment tools and models may occur across all three of these areas.



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #17: CWPP Resource Directory

The examples shown below have been drawn from a range of cases discovered during the Joint Fire Science research project on “enhancing collaboration and building community capacity in relationship to CWPPs.” The intent of this Quick Guide is to provide basic guidance on CWPP formats and to illustrate the range of approaches that can be utilized within a variety of community situations and environmental contexts.

Examples of CWPPs:

Lake County, Minnesota

http://www.co.lake.mn.us/index.asp?Type=B_BASIC&SEC={9F79DFFE-D039-49B3-8066-594E2C2A1987}

Cook County, Minnesota

<http://www.co.itasca.mn.us/Land/CWPP.pdf>

Itasca County, Minnesota

<http://www.co.itasca.mn.us/Land/CWPP.pdf>

Barnes and Drummond, Wisconsin

<http://www.barnes-wi.com/page.cfm/398>

El Dorado County, California

http://www.edcfiresafe.org/edc_wildfire_protection/viii.htm

Rome, Wisconsin

http://www.ncwrpc.org/counties/adams/Rome_final_July_5_2007_OnWeb.pdf

Lane County, Oregon

http://www.lanecounty.org/Planning/documents/CWPP/Exec_Summary.pdf

Lake County, Colorado

<http://csfs.colostate.edu/library/pdfs/cwpp/lakecocwpp.pdf>

Tusayan Community, Flagstaff, Arizona

<http://www.azsf.az.gov/UserFiles/PDF/TusayanCWPP.pdf>

Additional Websites:

Village of Ruidoso, New Mexico—Forestry Department, w/ CWPP and link to Municipal *Ordinance- Sec. 42-70. Fuels management: duty to abate and control wildfire fuels.*

http://www.voruidoso.com/Forestry_Documents/Forestry.html

CWPP Practitioner Series

<http://www.southwestcoloradofires.org/WildfireMitigationPractitionerSeries.pdf>

California Fire Alliance—CWPP Guidance/Template

<http://www.cafirealliance.org/cwpp/>

Society of American Foresters (SAF) CWPP Handbook:

A concise, step-by-step guide to use in developing a Community Wildfire Protection Plan. Collaboratively developed by SAF, Communities Committee, National Association of Counties, National Association of State Foresters, Western Governors' Association. This handbook has been recently updated. See at http://www.forestsandrangelands.gov/communities/documents/CWPP_Report_Aug2008.pdf.

(over)



CWPP Development Handbook:

A handbook based on the Apache-Sitgreaves National Forest (Arizona) related CWPPs, with detailed narrative guidance. This is one of the most comprehensive descriptions of CWPP components and the rationale for their inclusion. http://www.ag.arizona.edu/firewise/community_wildfire_protection_plans.pdf

The JFS Research Project Website:

Joint Fire Science-CWPP: Enhancing Collaboration and Building Community Capacity:
Website of a joint research project on community collaboration related to CWPPs, funded by Joint Fire Science—See additional links on this site. <http://jfsp.fortlewis.edu/>

At the Eugene, Oregon, knowledge transfer workshop (September, 2007), the participants requested that the following purposes be addressed:

- > *how CWPPs influence federal agency and long-term land management planning*
- > *how to keep current and move forward with CWPP development and implementation, even facing limited federal and county financial support*
- > *how to institutionalize collaborative efforts*
- > *how to evaluate CWPPs*
- > *how to build people's awareness of fire risk*
- > *how to create synergy to move CWPPs forward*
- > *how to develop and implement monitoring and evaluation strategies*
- > *how to work with or involve all stakeholders*
- > *how to strengthen partnerships*

We believe these sorts of questions and concerns will continue to be topics of dialogue, sharing and learning. We encourage you to learn about and share good examples and best practices of developing, implementing and monitoring CWPPs that become available. Hopefully the array of resources for planning, implementing, and networking will continue to grow.

Please contact any member of the JFS Team with resources and information you wish to share.
(See at <http://jfsp.fortlewis.edu/investigators.asp>.)

Principle Investigators and Contacts:

Pamela Jakes, USFS
North Central Research Station
St. Paul, Minnesota
pjakes@fs.fed.us or 651-649-5163

Daniel Williams, USFS
Rocky Mountain Research Station,
Fort Collins, Colorado
drwilliams@fs.fed.us or 970-295-5970

Partner Investigators and Institutions:

Sam Burns, Fort Lewis College, Durango, Colorado
Antony Cheng, Colorado State University
Kristen Nelson, University of Minnesota
Victoria Sturtevant, Southern Oregon University



Members of the JFS-CWPP Research and Advisory Teams

COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #18: Monitoring the Collaborative Process

Periodic monitoring of the CWPP planning process can help evaluate progress, document accomplishments, and identify future directions. For many communities, the CWPP collaborative process has been a new experience that gathered diverse participants with complementary perspectives, experiences, and resources in order to accomplish collective goals. It is useful to reflect upon the substantive learning and accomplishments of the group; the openness and inclusiveness of the process; and the quality of communication and relationships within the group, with other agencies, and in the community through monitoring and evaluation.

Monitoring and evaluating the outcome of the CWPP helps document the benefits accrued from the considerable investments of time, effort, and money. It demonstrates to funders and policy makers the accomplishments and priorities that have been made, as well as those that have not, and why. Also, evaluating whether the Plan is on track helps determine if initial goals and objectives need to be adjusted given potential changes in the community and local forests.

Ideally, all participants will take part in monitoring; yet some groups may lack the capacity for participating in ongoing evaluation. If no coordinator or core group is responsible for implementation or oversight of the plan, then perhaps resources could be found to bring in an outside evaluator. A good cross-section of participants should be queried at various intervals as part of the evaluation process with phone or email interviews between meetings or via annual surveys. Non-participants and community residents should be included in the evaluation process, perhaps by forming a community advisory committee or focus groups, or by conducting surveys at community events. Consider using a combination of questions that not only describe activities, accomplishments, substantive learning, and increased awareness, but also more value-based questions such as whether people feel their expectations are being met, and whether the process is perceived as fair and legitimate.

Monitoring Collaboration and Community Capacity

What you monitor and the criteria you use will reflect the expectations, objectives, and values of the participants. Some possible goals of monitoring the CWPP collaboration could be to:

- Assess effectiveness
- Improve accountability and inclusivity
- Align expectations and goals
- Assess learning about fire risk and mitigation
- Build trust among participants and with stakeholders
- Renew commitment to the process
- Find new participants and resources
- Note progress and successes.

Some suggested ways to evaluate the process might include:

- Ask participants if their goals and expectations aligned with those of the group.
- Assess how problems are defined or framed (e.g., with data, models, and maps) and what other options are available.
- Evaluate the quality of communication, decision making, and incentives for participation.
- Determine if scales of analysis (e.g., risk assessment) and action (e.g., fuel reduction and community outreach) are appropriate. Is it better strategically to work across landscapes and jurisdictions, or at the community or neighborhood level?
- Check who is at the table and who is missing. What resources and perspectives could new partners bring?

Web Site: <http://JFSP.fortlewis.edu>



The following questions might help determine how the collaborative process assisted in implementing the CWPP and building capacity for the community to reduce wildfire risk:

- Have community organizations and social service agencies partnered on CWPP efforts?
If so, how?
- Have community partners involved in the planning process remained engaged in implementation?
- How many residents are participating in various projects (e.g., demonstration sites, cleanup days, fuel reduction programs)?
- Are new ties or networks with the community and within the community being formed?
- How have the relationships with community organizations and residents established through the CWPP enhanced opportunities to address CWPP goals?
- How has the CWPP outreach made a positive impact on local organizations and neighborhoods?
Has partnering with the CWPP process increased their capacity to meet local needs and launch projects?

Measuring the impacts of collaboration can be difficult. Significant outcomes such as improved relationships are tricky to measure, but some can be counted – e.g., the number of meetings, number of meeting attendees, number of newspaper articles reporting collaborative activities, and number of new homes with defensible space. Funders and some participants may expect quantifiable impacts, such as acres of land treated. One idea for reporting non-quantifiable benefits is to develop a checklist of potential benefits, and then check off those realized. Another idea is to write the story of collaboration, based on interviews and including quotations from participants and beneficiaries. If baseline data is available, comparisons over time may be useful for demonstrating impacts, such as recording how things happened before the implementation of a CWPP.

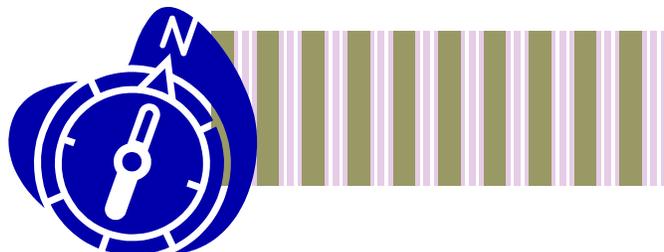
Monitoring can also employ indicators and criteria of performance generated elsewhere; for instance, by national policy (e.g., HFRA) and state agencies (e.g., Departments of Natural Resources). A particularly useful guide provided by Resource Innovations, <http://ri.uoregon.edu/programs/CCE/CWPPresources.html>, suggests six CWPP elements to monitor (partnerships and collaboration; risk assessment; reducing hazardous fuels; reducing structural ignitability; education and outreach; and emergency management) and indicators for participants to identify key outcomes and changes over time. The guide also suggests strategies for adapting the CWPP process to reflect lessons learned, defining new actions for the future, and updating the Plan.

Finally, it is important to evaluate the needed capacities and essential components for moving to the next step - implementation. Questions such as the following can be explored:

- Has social capacity been created to implement the plan?
- Are community education and outreach effective and sustainable?
- Are agency and department decision-makers willing to implement projects?
- Is the CWPP comprehensive and multifaceted?
- Are there programs, organizations or plans in which to embed CWPP?

The following website is a good initial reference regarding various aspects of ecological monitoring:

<http://www.fs.fed.us/r3/spf/cfrp/monitoring/>.



COMMUNITY WILDFIRE PROTECTION PLANS

Enhancing Collaboration & Building Community Capacity

Quick-Guide #19: Conducting Risk Assessments

The Healthy Forest Restoration Act requires that CWPPs identify and prioritize areas for hazardous fuel reduction treatments based on their determined level of risk. Risk assessments lay the foundation for decisions regarding the types and methods of treatment that will protect at-risk communities and infrastructure; they identify the community's highest priorities for fuels reduction, such as creating defensible space around homes, building strategic fire-breaks, or restoring forest structure, typically through thinning. They can also inform the definition of WUI boundaries. Because wildfire and mitigation cross land ownership boundaries and require input, technical knowledge and resources from many participants, they are best accomplished collaboratively.

The CWPP processes we studied adopted a variety of **strategies for assessing risks** to forests and communities. Some groups relied upon consultants, or state or federal agencies to use models and criteria developed outside the CWPP collaborative process; others used a more qualitative process which gathered local concerns and knowledge, and marked them on maps. CWPPs associated with, or hoping to gain acceptance by, the Firewise Communities USA network, adopted their assessment requirements. Some individual property or sub-division assessments were nested in larger-scale county risk assessments. For many CWPP processes, the first step was creating GIS layers to identify cumulative risks occurring in the landscape. Factors considered include:

- ◇ Risk: past fire occurrences as a predictor of potential wildfire ignitions
- ◇ Ecological conditions: fuels, slope, aspect, elevation and weather
- ◇ Values: people, property, natural and built resources threatened by a wildfire event
- ◇ Protection capability: wildland firefighter response times, structural fire suppression capacity, roads, water sources, access
- ◇ Structural vulnerability: existence of defensible space around structure, roof type and building materials. (more)



Web Site: <http://JFSP.fortlewis.edu>

There is no one proper method of assessment as the following descriptions from our cases demonstrate:

Lake County CWPP participants used as their template a risk assessment originally created by a USFS fuels specialist that included three main components: *Hazard and Risk*, *Values*, and *Protection Capability*, each of which had several subtopics within them. The group walked through these factors, ranking each WUI area previously identified with its identified risk data (access, topography, fire occurrence, jurisdiction, community values, local preparedness capability, etc.) on a numerical scale. Weights were given to each factor and a total number of points awarded to each WUI area, for each of the three components; these were then summed to get the final hazard rating. The rankings assigned to each WUI area, and each part of the risk assessment, were discussed as a group and reflect common agreement.

The Barnes and Drummond CWPP used a technical GIS based modeling approach provided by a third party planning group, the Northwest Regional Planning Commission (NWRPC) which provided facilitation services and GIS experience to the planning process. Their risk assessment followed the methods outlined in “Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities” (SAF, 2004) and included models for five difference components: *Fuel Hazards*, *Risk of Wildfire Occurrence*, *Essential Infrastructure at Risk*, *Other Community Values at Risk*, and *Local Preparedness and Firefighting Capabilities*. Each of these model inputs included different “themes” based on current GIS layers (e.g., trails, roads, parcel data), and in some cases the facilitator created new data layers of items based on local knowledge and group discussion.

The Taylor CWPP planning area was considerably smaller than many of cases as it encompassed only the actual community, around 1600 acres; therefore, CWPP planning participants could use an on-the-ground risk assessment to determine the hazards and risks in Taylor. The facilitator used a template with six sections: *Access*, *Vegetation*, *Building Construction*, *Fire Protection*, *Utilities*, and *Additional Rating Factor*; participants from the Florida Department of Forestry, the US Forest Service, and the Baker County Fire Department used maps and local knowledge to conduct the first part of the risk assessment, and then broke up into three different teams in order to cover the entire community. The group then compared notes and discussed their findings.

The Josephine County Wildfire Hazard and Risk Assessment, created by a CWPP subcommittee of local, state, and federal agency representatives, used the National Association of State Foresters methodology that included *wildfire risk*, *hazards*, *values*, *protection capability* and *structural vulnerability*. In gathering the hazard data, the committee addressed many technical issues; for instance, vegetation data was derived from remote sensing sources but this source has no information about the under story, ground fuels, or stand structure. Extensive consultation with biologists and fire scientists provided additional data on slopes, aspects, and elevation. A series of community meetings gathered local knowledge about community values (economic, environmental, social and cultural), but the community information was not included in the quantitative risk assessment because it was considered uneven and not “ground truth-ed.” Ultimately, the five components were weighted (e.g., structural vulnerability was two times the protection capability), and over 20 layers of GIS information were condensed into one risk assessment value.

The El Dorado County Wildfire Protection Plan divides the County into regions using market areas developed for the County's 2004 General Plan. The fire service carried out a hazard assessment for each market area based on *potential fire behavior*, *fire suppression capacity and effectiveness*, *structural survivability in a wildfire situation*, *firefighter and resident safety*, and other variables deemed appropriate. Communities are then ranked using three criteria: whether they are in a threat zone, the magnitude of the threat, and the defensibility of the community. The County Fire Safe Council (FSC) has a number of community-based FSCs with their own CWPPs; one is Auburn Lake Trails, whose residents have assumed responsibility for a program developed in 1989 by California Department of Forestry, Volunteers in Prevention (VIP). Fifty VIPs are trained in assessment methods and are often joined by property owners as they conduct annual assessment in order to learn more about reducing wildfire risk. Property owners can be fined if the work deemed necessary is not completed in a timely manner, although inspectors prefer to work with owners to find a way to complete the projects. (more)

Despite their different approaches, these risk assessments increased knowledge about fire risk among both private residents and local government officials. They provided a chance for participants to share their local knowledge about a particular area, and learn about other parts of the county and the relative risk in those areas. Those who conducted one-on-one assessments in the community gained not only a better understanding of the wildfire risk, but became more familiar with the community in general. Those who collected quantitative data for the GIS layers found it contributed to common standards and practices for other data collection; some have taken the opportunity to integrate their risk assessment data into national data bases such as LANDFIRE (<http://www.landfire.gov/documents/LF%20fact%20sheet.pdf>). GIS layers also provided some “aha!” moments for planners and residents, such as when roads or structures were layered on the hazard layer.

These assessments helped draw or adjust WUI boundaries and provided a foundation for future decisions about priorities for hazardous fuel reduction projects on private and public land. Collaboration on these assessments built strong partnerships between counties, State Departments of Forestry, Federal Land Management agencies and fire departments.

Federal land planners can consider how the high hazard and risk areas identified by the assessment can be related to overall management in the area. This provides an opportunity to develop strategies resulting in landscape level changes in the environment as projects are planned that will have the most benefit and to coordinate existing fuels reduction projects on county, state, federal or private land.

See the 2008 Community Guide to Preparing and Implementing a Community Wildfire Protection Plan for more discussion of risk assessment.

http://www.forestsandrangelands.gov/communities/documents/CWPP_Report_Aug2008.pdf.

