

# CRITICAL COMMUNITY WATERSHED WILDFIRE PROTECTION PLANS GUIDELINES FOR IMPLEMENTATION



## Overview

Community Wildfire Protection Plans (CWPPs) are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA) passed by Congress on Nov. 21, 2003, and signed into law by President George Bush on Dec. 3, 2003.

The Healthy Forests Restoration Act places renewed emphasis on community planning by extending a variety of benefits to communities that have a CWPP in place. Critical among these benefits is the option of establishing a localized definition and boundary for the wildland-urban interface (WUI), and the opportunity to help shape fuels treatment priorities for surrounding federal and non-federal lands.

The CWPP, as described in HFRA, brings together diverse local interests to discuss their mutual concerns for public safety, community sustainability and natural resources. It offers a positive, solutions-oriented environment in which to address challenges such as local firefighting capability, the need for defensible space around homes and subdivisions, and, where and how to prioritize land management on both federal and non-federal lands.

By definition, CWPPs tend to center around urbanized areas located within or surrounded by wildland fuels. These urbanized areas may range from relatively large areas comprised of numerous subdivisions and commercial sites to individual subdivisions, small clusters of homes, or even small clusters of structures such as dude ranches or commercial facilities. Most CWPPs tend to incorporate areas only a few miles outside the perimeter of these urbanized locales; they generally do not

penetrate deeply into the surrounding wildland fuels.

Recent experience has shown that fires may start some distance from these urbanized areas, well outside the traditional CWPP boundaries, and burn into the planning area as a running crown fire. Examples include the 1996 Buffalo Creek Fire that ran nearly 11 miles in 4.5 hours, and the 2002 Hayman Fire that ran more than 20 miles in one afternoon, burning more than 60,000 acres.

Communities and municipalities tend not to lay claim to the larger watershed(s) that provide surface water for their residents. Critical Community Watershed Wildfire Protection Plans, or (CWP)<sup>2</sup>s, build on and broaden the CWPP concept to incorporate these critical watersheds. (CWP)<sup>2</sup>s are written plans that provide guidance to agencies, water providers and other landowners about the types and specific locations of treatments necessary to reduce wildfire hazards within the watershed as a whole, and protect reservoirs, intakes, water transportation and distribution structures and other facilities through the use of specific site-level treatments.

This expanded concept has been endorsed by Jeff Jahnke, state forester/director, Colorado State Forest Service, and Rick Cables, Rocky Mountain regional forester, U.S. Forest Service. In addition, the Front Range Fuels Treatment Partnership is seeking authoritative approval for the expanded concept of (CWP)<sup>2</sup>s.

Following is a description of the (CWP)<sup>2</sup> development process, including potential partners, timelines and considerations for implementation.

## Who

- Like CWPPs, critical community watershed wildfire protection planning should be led by major water providers with active participation from local water providers and users, local community leaders, elected officials and local interest groups; state and federal agencies, and non-governmental stakeholders also should provide support.
- The HFRA requires that, at a minimum, representatives from local government, the local fire authority and the Colorado State Forest Service agree on the plan. The HFRA also requires that the plan be developed through meaningful collaboration with a wide variety of local organizations and interest groups. The extent of collaboration will expand when off-site water interests are involved. Water-rights holders and water transport and storage entities must be involved and should lead planning efforts.
- Federal, state and local government, and other land managers should contribute specialized natural resource knowledge and technical expertise to the planning process, particularly in the areas of GIS and mapping, vegetation management, assessment of values/risks, wildfire size/intensity probabilities and funding strategies.

## What

- A (CWP)<sup>2</sup> is a written plan that provides guidance to land management agencies, water providers and other landowners about the types and specific locations of treatments necessary to reduce wildfire hazards within the watershed as a whole, and protect reservoirs, intakes, water transportation/distribution structures and facilities through the use of site-specific treatments. A (CWP)<sup>2</sup> typically will be designed and planned at the sixth-level watershed scale (approximately 5,000 to 40,000 acres in size).

- (CWP)<sup>2</sup>s will clearly define and set priority goals relative to the mitigation of wildfire hazards and the subsequent secondary hazards of post-fire flooding, debris flows and other water-quality and quantity-related issues. The suggested planning and implementation horizon is 10 years.

- (CWP)<sup>2</sup>s will describe the area's fire history and probability of future fire occurrence. It also will include discussions about significant

environmental and non-environmental situations that could significantly increase the likelihood of wildfires. These might include insect and disease epidemics, observed long-term climate change, energy development, etc.

- (CWP)<sup>2</sup>s will include areas identified within the statewide Source Water Protection Assessment that, if burned or burned-over during wildfire, could suffer multiple negative impacts. For example, old mine spoils exposed to flooding might deposit high concentrations of heavy metals in the watershed.

- The plan should identify and prioritize areas of federal, state, local government, private and other ownerships where fuels reduction is needed to reduce threats to the watershed as a whole, and specifically to its critical infrastructure.

- (CWP)<sup>2</sup>s should address wildfire response capabilities for the protection of homes, offices, maintenance facilities and other structures within the watershed, as well as specialized infrastructure related to water transport (such as above-ground siphons), reservoirs and other water storage or movement equipment that might be damaged or impacted by wildfire. Plans also should detail and incorporate special protection measures, and include any planned structures or developments that will occur within the planning and implementation horizon. All should be evaluated for their vulnerability to wildfire and/or the subsequent secondary hazards and impacts of post-fire flooding, debris flows, etc. Such water infrastructure that occurs on national forest or other federal lands typically falls under a Special Use

Permit, and any requirements of that permit must be followed during project implementation. In some cases, the permit may need to be amended to allow protection projects to be implemented.

❑ Existing CWPPs for communities located within the watershed planning area should be incorporated by reference. Treatments planned as part of these CWPPs should be included on the watershed treatment map and incorporated as part of the overall protection plan, and the relative project priorities. (In some situations it may make more sense to update an existing CWPP to incorporate watershed issues rather than create a new plan. This should be evaluated on a case-by-case basis.)

❑ During the planning process, other values at risk such as viewsheds, open space, wildlife habitat, etc. should be identified. Special treatments, treatment modifications, timing restrictions and other adjustments should be made to address these needs.

❑ Plans should address the need for and probable locations of major post-fire sediment control structures such as “leaky dams.” Due to cost, it is not practical to expect that such structures will be built or installed prior to fire. However, pre-planning to address their need and probable locations is critically important for obtaining timely approval to construct them during the emergency stage of the recovery process.

❑ Plans also should include specific steps for implementing recommendations and provide a prioritized summary listing of all planned actions and projects. A 10-year planning and implementation horizon is recommended.

❑ A communications plan is essential to the successful development and implementation of any (CWP)<sup>2</sup> and should address effective strategies for communicating about wildland fire and related issues. Communications plans should target diverse audiences including water users who may be located well outside the boundaries of the watershed or the (CWP)<sup>2</sup>.

❑ Pre-identify, by position or job title, individuals to serve as members of a Burned Area Emergency Rehabilitation Team (BAER Team) or as representatives on local advisory committees for BAER Teams. Under current directives, US Forest Service units are required to have pre-identified BAER leaders and teams in place, and there are National Wildfire Coordinating Group (NWCG) qualification standards for team members. In some situations, two separate entities may work together toward the same goal during the emergency rehabilitation stage. Local Memorandums of Understanding (MOUs) may need to be developed to clarify roles, duties and other coordination needs.

❑ The HFRA provides communities the opportunity to define their own wildland-urban interface and watershed concerns. Federal agencies currently are directed to spend at least 50 percent of their fuel hazard reduction funds on projects within the interface. At this time, it is not known if the above statement can be expanded to include watershed-level programs. Given the current focus on reducing structure loss, there may be a stigma about extending the application to watershed level treatments before all WUI needs have been met. As such, a funding strategy should be part of every (CWP)<sup>2</sup>.

### When

❑ *Now is a good time to start working on a (CWP)<sup>2</sup> if your watershed is in an area at risk for large-scale, high-severity wildfires, and if the potential for soil erosion, sediment transport and/or debris flows is high. The planning process may take from one to three years depending on the size and complexity of the watershed, the partners involved and/or the resources available to develop the plan. (Keep in mind that the ultimate goal is not to complete another plan, but to implement projects that will protect the watershed and its infrastructure, so time is of the essence.)*

❑ Identify the planning and implementation horizon and address the need for and timing of periodic reviews and updates.

## Where

□ For CWPPs, the HFRA suggests that communities develop an interface definition and boundary that suits their unique environment. This principle should be adapted to the development of a (CWP)<sup>2</sup> by defining the specific watershed or sub-watershed to be addressed in the plan.

□ Before deciding to develop a (CWP)<sup>2</sup>, careful assessments and evaluations should be made to select watersheds that most likely will be negatively impacted by wildfire. *(It is expected that landscape-scale assessments will be conducted for the larger watershed as a whole, yielding a prioritized ranking of sub-watersheds in need of treatments.)*

□ A decision regarding the size and level of watershed to be addressed should be made early in the process. Precedent exists for, and it is recommended that, (CWP)<sup>2</sup> planning occur at the sixth-level watershed scale. Due to the complexities involved, planning for smaller areas may be more feasible than planning for large areas.

□ Careful assessments and evaluations should be made to select the types and levels of treatments necessary to provide reasonable protection for the watershed and its infrastructure.

□ As previously stated, (CWP)<sup>2</sup>s should incorporate any existing CWPPs within the boundaries of the larger watershed. Depending on the nature of the watershed, priorities for fuels treatments also may include power facilities, key habitat areas, important recreation sites or other elements of community infrastructure that exist within the larger watershed, but are outside the confines of any existing CWPPs.

## Why

□ A (CWP)<sup>2</sup> allows water providers, water users, other watershed partners and stakeholders to take the lead in and set priorities for their own watershed protection.

□ A (CWP)<sup>2</sup> can and should bring together diverse local and regional interests to develop strategies for improving public safety,

community protection and natural resource management.

□ The HFRA gives communities that have developed a CWPP the opportunity to influence the location and type of land management treatments that occur on federal lands surrounding their communities. This same opportunity is available to partners through development of a (CWP)<sup>2</sup> that has been prepared utilizing the best available science and is located within a prioritized, realistic, reasonably sized sub-watershed.

## How

□ The foundation for collaborative planning, implementation and accountability lies in a three-tiered organizational structure of stakeholders at the local, state, regional and/or tribal and national levels.

□ Ideally, all federal, tribal, state and local government, non-governmental partners and other stakeholders should freely participate throughout the entire planning and implementation process, which includes:

- a) Planning
- b) Prioritizing actions and implementation responsibilities
- c) Seeking funding for implementation
- d) Timely decision-making, particularly for the implementation of projects and activities
- e) Tracking and monitoring performance to assure that activities are consistent with the plan, are based on relevant science and incorporate any new, applicable information
- f) Holding partners accountable
- g) Communicating with the public about goals, tasks, projects, activities, accomplishments and outcomes of the plan throughout the suggested 10-year planning and implementation horizon of the (CWP)<sup>2</sup>

□ Several national organizations worked together to develop a publication titled *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities*. This publication outlines an eight-step process for developing an effective Community Wildfire Protection Plan as described in the Healthy Forests Restoration Act. Two additional steps have been added to this process for (CWP)<sup>2</sup>s that focus significant energy on building a broad-based coalition of stakeholders:

**Step One:** Establish a core group of local, regional and statewide leaders with interest in and commitment to the development of a (CWP)<sup>2</sup>.

**Step Two:** Engage federal and state land managers, and emergency response and planning personnel. Enlist their technical assistance, support and participation. Also consider the need and desirability of including organizations such as the U.S. Geological Survey, Corps of Engineers, etc.

**Step Three:** Contact and seek active involvement from diverse stakeholders who may have an interest in identifying where and how community watershed protection activities occur.

**Step Four:** Create a working map of the watershed, including populated areas, land ownerships, infrastructure, vegetative conditions and special biological considerations (i.e. Threatened & Endangered species).

**Step Five:** Conduct a community/watershed risk assessment that looks at local wildfire response capability, fuel hazards, risks of wildfire probabilities/consequences, soil erosion potential, flooding potential, sediment transport/deposition and other community values at risk.

**Step Six:** Identify natural processes, fire regimes and condition classes found within the watershed. Describe sustainable desired future conditions that are sensitive to ecosystem dynamics, and identify fuels treatment priorities and

methods on federal and non-federal land that will enhance watershed resilience to a wide variety of possible disturbances. Conduct an economic analysis that compares costs based on various potential outcomes with and without the investment.

**Step Seven:** Develop a fresh coalition of support for actions that evolve during step six. Involve the most likely critics in assessment and design of the recommended actions. Solicit active support from groups traditionally opposed to forest management activities.

**Step Eight:** Develop an implementation plan and strategy for assessing the overall plan's effectiveness.

**Step Nine:** Finalize and share the plan with the larger community. Make a concerted effort to inform watershed stakeholders that are not part of the "local" mix of interested parties.

**Step Ten:** Guided by identified priorities, begin implementation where funding and support exist. Seek funding to maintain momentum and interest.

## Key Factors for Success

The following are common elements to the success of other collaborative efforts:

1. A strong commitment to the value of the collaborative process is shared by all participants.
2. Strong, positive working relationships already exist.
3. Pertinent federal and state agencies participate in and support the effort.
4. Galvanizing events have created interest in an issue that results in support for action. Examples include the Buffalo Creek Fire and subsequent flooding and sedimentation; the Hayman Fire, etc.
5. Participants identify and understand common values. For example, they understand the importance of:
  - a. The relationship between forests and watersheds
  - b. Protecting environmental and ecological values
  - c. Maintaining or developing a vigorous forest industry.
6. Planning and implementation of projects occurs on “both sides of the fence” to demonstrate commitment.



### **THE FRONT RANGE FUELS TREATMENT PARTNERSHIP**

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