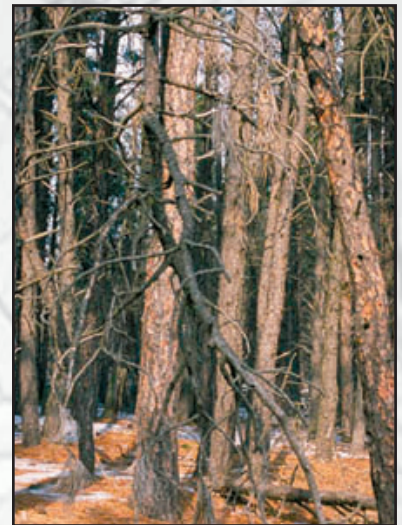


*Conservation Districts' Role in  
Implementing the National*

# Fire Plan

A Second Look



*This publication was produced by the  
National Association of Conservation  
Districts, in cooperation with the  
USDA – Forest Service and the  
US Department of Interior.*

## A Letter From NACD

**Dear Conservation District Leader:**

In 2002, NACD joined with the USDA Forest Service and U.S. Department of Interior to develop a booklet regarding conservation districts' role in implementing the National Fire Plan.



NACD felt it was important for our nation's conservation districts to better understand the potential opportunity they have as community leaders to actively manage fire risk and utilize available tools provided by the National Fire Plan for fire prevention, restoration and protection. The National Fire Plan has five key components including community assistance, hazardous fuel reductions, firefighting, rehabilitation and restoration, and accountability. Conservation districts can and should play a significant role in each of these major areas.

Since the publication of the Conservation District-National Fire Plan document, many conservation districts were actively involved in preventative and rehabilitation activities in their communities. We applaud your efforts and challenge others to join the cause.

The 2006 fire season set new records with nearly ten million total acres burned and the number of fires exceeding the ten-year average by nearly twenty five percent. Weather experts predict current drought conditions to continue, increasing the risk of wildland fire. Thus all of our work in the past is only a start.

Conservation districts have an opportunity, even a responsibility to their community to pursue local strategies in land management to avoid hazardous build-up of woody materials, to protect the natural resources, and to be as prepared as possible in the event of a catastrophic fire.

Use this booklet to motivate and educate your community and help mitigate the dangerous impacts of wildland fires in your community.

Sincerely,



Krysta Harden  
CEO

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# Legislative Update

The National Fire Plan (NFP) was developed in August 2000 after a devastating wildfire season. The NFP is designed to provide funds and tools to strengthen communities' abilities to fight and increase protection from wildfires. The five key points of the Plan are:

- 1. Firefighting** – maintain a cost-effective level of preparedness in firefighting and prevention.
- 2. Rehabilitation and Restoration** – rehabilitate fire-damaged areas and restore ecosystems.
- 3. Hazardous Fuels Reduction** – reduce fire risk in the wildland-urban interface (WUI) by removing excess flammable material.
- 4. Community Assistance** – work with communities to reduce the risks of catastrophic fire.
- 5. Accountability** – provide oversight reviews, progress tracking and performance monitoring.

Several federal agencies in the U.S. Departments of Agriculture and the Interior play major roles in implementing the National Fire Plan. They include the Forest Service, Bureau of Land Management, Fish and Wildlife Service, National Park Service and Bureau of Indian Affairs. Assistance is also provided by USDA-Natural Resources Conservation Service.

Some of the tools provided by the National Fire Plan include the Rural Fire Assistance Program,

which was authorized to provide grants up to \$20,000 to increase fire protection capability to rural or volunteer fire departments located near Department of Interior lands. Another is the State Fire Assistance Program which provides state forestry agencies with assistance to deliver coordinated wildfire management including prevention, preparedness, and fire suppression across the landscape. The Volunteer Fire Assistance Program is another NFP program administered by state forestry agencies through cost-sharing grants to local fire departments for training and equipment.

In 2001, a ten year comprehensive strategy and implementation plan, A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, was developed by the federal agencies and major stakeholders. The primary goals of the strategy are to support and strengthen the five key points of the National Fire Plan. The strategy provides overall management of wildland fire, hazardous fuels, and ecosystem restoration and rehabilitation on federal and adjacent state, tribal, and private forest and range lands.

## Healthy Forests Initiative

In 2002, the Bush Administration established the Healthy Forests Initiative, directing the Departments of Agriculture and the Interior and the Council on Environmental Quality to improve regulatory processes to ensure more timely decisions, greater efficiency and

## Purposes of the Healthy Forest Restoration Act

- to reduce wildfire risk to communities, municipal water supplies, and other at-risk federal land through a collaborative process of planning, prioritizing, and implementing hazardous fuel reduction projects
- to authorize grant programs to improve the commercial value of forest biomass (that otherwise contributes to the risk of catastrophic fire or insect or disease infestation) for producing electric energy, useful heat, transportation fuel, and petroleum-based product substitutes, and for other commercial purposes
- to enhance efforts to protect watersheds and address threats to forest and rangeland health, including catastrophic wildfire, across the landscape
- to promote systematic gathering of information to address the impact of insect and disease infestations and other damaging agents on forest and rangeland health
- to improve the capacity to detect insect and disease infestations at an early stage, particularly with respect to hardwood forests
- to protect, restore, and enhance forest ecosystem components (a) to promote the recovery of threatened and endangered species; (b) to improve biological diversity; and, (c) to enhance productivity and carbon sequestration.



## Legislative Update

better results in reducing the risk of catastrophic wildland fires. The Healthy Forests Initiative adds comprehensive support to the ten year comprehensive strategy and implementation plan. The initiative calls for more active forest and rangeland management. It establishes a framework for protecting communities and the environment through local collaboration on thinning, planned burns and forest restoration projects.

Also in 2002, the **Wildland Fire Leadership Council** was formed in order to more effectively coordinate the activities of the federal agencies and provide guidance by top agency management towards achieving the goals set in the National Fire Plan and the Federal Wildland Fire Management Policy. These agencies are also involved with the National Association of State Foresters in the National

Wildfire Coordinating Group (NWCG), established in 1976, led by staff level managers to further coordinate and refine inter-agency and state activities. The NWCG created the “Firewise” information campaign ( <http://www.firewise.org/> ), with comprehensive fire safety and preparedness information for homeowners and firefighters.

### Healthy Forest Restoration Act

In 2003, the Healthy Forest Restoration Act (HFRA) was passed as another major component of the Healthy Forest Initiative. In general, it builds on the National Fire Plan by expediting hazardous fuel reduction projects, assisting states and landowners in forest restoration projects, authorizing research, funding conservation easements and establishing early warning systems for insect and disease outbreaks.

(See the purposes of this act on page 3).

### Energy Policy Act of 2005

An important legislative act was the passage of the Energy Policy Act of 2005. It is a comprehensive work affecting all forms of energy, including a title on renewable energy and a section within it (Title II, Section 210) on “Grants to Improve the Commercial Value of Forest Biomass for Electric Energy, Useful Heat, Transportation Fuels, Petroleum-Based Product Substitutes and Other Commercial Purposes.”

The Act authorized grant funds to promote opportunities in developing bioenergy and biobased products from the collection of materials for the primary purpose of hazardous fuel reduction and disease and insect infestation. Funds are also authorized for research and development to make energy from biomass more efficient and available.

(See the bill at [http://www.hydrogen.energy.gov/pdfs/epact\\_05.pdf](http://www.hydrogen.energy.gov/pdfs/epact_05.pdf) ).





# Role of Districts

As presented in Conservation Districts' Role in Implementing the National Fire Plan, there are, in fact, many roles that America's 3,000 conservation districts can play in the various aspects of the National Fire Plan and the Healthy Forest Restoration Act. Conservation districts have a mission to protect natural resources within their jurisdiction regardless of land use.

Districts were created over 60 years ago to serve as a local gateway to determine the resource needs of their jurisdiction and through which federal, state and local technical and financial assistance can be provided to private landowners.

Some examples of key leadership that can be provided by districts include:

- Serving as a catalyst to assemble major stakeholders to work together to solve wildfire and any other environmental problems on a community or watershed level.
- Providing education and information about critical local natural resources issues.
- Playing a direct role in implementing wildfire protection plans such as hazardous fuel reduction to prevent a catastrophic fire or in restoration plans to stabilize a site after a wildfire has occurred.

It is this concept of local leadership and coordination that would allow districts to build a "conser-

vation community," a group of informed citizens and agencies who work together to protect their natural resource base. Building a conservation community creates synergy, but first it requires a coordinating force to patiently draw people together to be informed, to collectively accept responsibility for the problem and to work together to attract resources that will solve the problem. Conservation districts can serve this role in wildland-urban interface areas (where human development is contiguous to undeveloped wildland) to prepare and protect communities from wildfire. This is the same process necessary to effectively solve any environmental problems on a watershed or regional basis.

Districts can play a leadership role in coordination between federal and state partners and local communities and private landowners. An effective conservation community will establish a working relationship with federal and state agencies with National Fire Plan/Healthy Forest Restoration Act responsibilities and funding programs. Become acquainted with these agency representatives and discuss their interest and involvement with potential projects. These partners include:

- State foresters – responsible to implement all five NFP key points (firefighting, rehabilitation, hazardous fuel reduction, community assistance, and accountability). To find contact information for your state forester, go to <http://www.nacdnet.org>.

## Woody Biomass Speakers' Bureau

NACD has developed a Speakers Bureau on Woody Biomass that is displayed on NACD's website.

The Speakers' Bureau lists contact information, areas of expertise and cost. The areas of expertise include: hazardous fuels, energy, bio-fuels, biochemicals, economic development, business and industry, research, funding, public policy, technical aspects and any unique or specialized areas. Costs range from a fee plus expenses to expenses only to no cost.

Visit the NACD website for more information, <http://www.nacdnet.org>.





## Role of Districts

stateforesters.org/SFlist.html.

- Federal land managers – working with Forest Service, Natural Resources Conservation Service, Bureau of Land Management, Fish & Wildlife Service, Bureau of Indian Affairs, and National Park Service personnel in districts adjacent to federal land.
- The National Park Service has a website called the Community Tool Box which lists useful information on consensus-building, goal- and vision-setting, active listening, and dialogue. See [http://www.nps.gov/phso/rtcatoobox/index\\_comtoolbox.htm](http://www.nps.gov/phso/rtcatoobox/index_comtoolbox.htm).
- Local volunteer fire departments – may need assistance in acquiring grants for additional wildfire training and equipment and help in informational outreach efforts to the community.
- Local communities/homeown-



ers associations – may qualify for funds and could use assistance in carrying out NFP or HFRA responsibilities.

- County or town government, local chamber of commerce, insurance agents, service groups, environmental and conservation organizations and other community leaders are important stakeholders in any NFP project.
- State association of districts – may be active at the state level with state foresters and state departments of forestry.

First, of course, district board members and staff must be informed themselves before they can then educate their community about fire safety and preparedness. The federal and state agencies with National Fire Plan responsibilities have well prepared educational tools, such as websites like [www.fireplan.gov](http://www.fireplan.gov). NACD's website at <http://forestry.nacdnet.org/> also has useful information on forestry issues. Once familiar with the basic concepts, meeting with state and federal partners can formulate a

general idea of appropriate projects and funding sources.

Next, they need to find local partners to begin building the conservation community and developing the tools needed to implement plans to solve wildfire issues. Then they can invite the other major stakeholders to form a group that works together to create a wildfire plan and becomes qualified to apply for and receive funding assistance to implement plans. Public information is a primary role for conservation districts. As part of their involvement in any community project, districts can take the lead in developing an information and education campaign that could include handouts, workshops and tours.

Perhaps there might be local interest in becoming a Firewise Community, which involves establishing a Firewise board of homeowners and fire professionals, going through a formal assessment process and developing and implementing a plan that addresses WUI fire issues. (See <http://www.firewise.org/usa/> for more details.)





# Funding

An important element in addressing the issue of fire is having adequate funding. Here are a few ideas as to where to find those funds, and how to secure them.

## Grant Applications

Whether creating a project for the conservation district, a local fire-wise council, a community wild-fire protection plan or any form of community assistance, usually grant funds are necessary to get the project implemented. Someone in the project planning group needs to prepare and submit a grant proposal. How appropriate the project is and how well the grant is prepared will mark the relative success of the effort. Regardless of the grant program, there are certain guidelines in grant preparation that would apply to any grant program. When working with the local community, especially volunteers, the group may look to the district for grant preparation and submittal. Here are some basic grant writing fundamentals:

## Preparation

- Define the project – Does it offer a solution to an unresolved problem? Will your group have the expertise, capacity and resources to solve the problem if the grant is approved? Does the project offer new insight or a new approach to the problem? What resources from the grant program, applicant and the community will be necessary to

implement the project? Who will be involved?

- Be knowledgeable about the grant program's requirements and guidelines – Is it the appropriate program for your project? Does it require specific forms to be filled out, a maximum number of pages, specific spacing or margins? What are the submission deadlines? Does the grant require matching funds or in-kind service? What are the payment and reporting requirements? What kind of organization is eligible to receive funds?
- Writing Tips – Be clear, honest, precise and concise. Do not use jargon or insider language. Identify acronyms. Make the proposal easy to read. Tailor your description to the interests of the grant program. Use professional letterhead and bond paper. Show how your proposal specifically addresses the goals of the funding program. Read application directions carefully and comply with all requirements.

## NFP Funding Sources

There are a number of potential funding sources for NFP/HFRA projects. Over the years since the NFP was created, some grant programs authorized in the NFP legislation currently do not have funds appropriated. Check with your state forester for the grant programs that are currently funded. Listed below are some sources to explore in the search for grants to fund community wildfire protection assessment

## The Basic Components of a Grant Proposal

- **Cover Letter:** an opportunity to emphasize your proposal's key points and give examples of who will benefit from the project.
- **Summary:** a concise summary that highlights the project goals, innovations, specific activities and outcomes.
- **Background:** describe your organization or group, its official organizational status, mission statement, programs, history and experience with similar projects.
- **Problem/Needs:** describe the situation in factual and human interest terms. Explain the current conditions, why it's a problem, and the detailed solution.
- **Work Plan:** include the proposed solution, the target audience and how it will be served and how many will be served. List the activities, where they will take place and a timeline for implementation of each component. Who will do the work and what are their qualifications? What other organizations are partners in the project?
- **Budget:** determine and justify realistic detailed costs and show how the costs were estimated. Include other funding, donated materials and in-kind services.
- **Evaluation:** Show how you intend to measure results.
- **Attachments:** include key staff and board members, the organization's most recent financial statement and a federal tax exempt letter for a non-profit organization.

and planning, wildland urban interface improvements, community assistance and other NFP goals.

### **NACD Catalog of Selected Federal Grants and Assistance Supporting the National Fire Plan:**

NACD compiled a catalog of useful information that includes a list of federal grants and assistance, federal and state agency contacts and a selection of conservation districts that have successfully implemented various projects that help to implement the National Fire Plan. It is a good place to start getting oriented to partners and grants that can make your project a success. The catalog is posted on the NACD website at: <http://forestry.nacdnet.org/biomass/Funding>.

**State Fire Assistance:** The SFA program was created to deliver coordinated wildland fire management including prevention, preparedness and fire suppression across the landscape. The program also assists states with hazard assessments, fuels treatment projects, and public education efforts. Website: [http://www.fireplan.gov/community/state\\_fire\\_assist.html](http://www.fireplan.gov/community/state_fire_assist.html).

**Volunteer Fire Assistance:** The VFA program, formerly known as the Rural Community Fire Protection program, is administered by state forestry agencies through 50-50 cost-sharing grants to local fire departments in rural communities. The program's main goal is to provide federal financial, technical, and other assistance in the organi-

zation, training, and equipping of fire departments in rural areas with a population of 10,000 or less. Website: [http://www.fireplan.gov/community/volunteer\\_fire\\_assist.html](http://www.fireplan.gov/community/volunteer_fire_assist.html).

### **Other Funding Sources**

#### **Woody Biomass Utilization**

**Grant Program:** This Forest Service program funds projects that help restore forest health and increase the use of woody biomass removed from or near national forests and Bureau of Land Management forestlands. The program seeks proposals that would improve utilization and create markets for small-diameter and low-valued trees removed during forest-thinning or other restoration activities. Improved utilization and expanded markets for biomass material can help reduce forest restoration costs by increasing its value, creating incentives and decreasing business risks, and helping remove economic and market barriers for using small-diameter trees and woody biomass. Historically, funding has ranged from \$4 to \$5 million per year for this grant program. Individual awards are between \$50,000 and \$250,000. Website: <http://www.fpl.fs.fed.us/tmu/grant/biomass-grant.html>.

#### **National Forest Foundation**

**Grants:** The NFF provides funding and awards programs for community-based organizations and other nonprofits for partnership projects that work to meet Forest Service objectives. (Districts are not eli-

gible, but could be partnering with nonprofits.) Website: [http://www.natlforests.org/consp\\_06\\_whichprog.html](http://www.natlforests.org/consp_06_whichprog.html).

#### **Environmental Quality Incentives Program:**

Administered by USDA-Natural Resources Conservation Service (NRCS), EQIP is a cost-share program targeted primarily for agricultural producers. It aims to control erosion and sedimentation and improve water quality, but also can provide technical and financial assistance on forestry practices such as forest site preparation, tree/shrub establishment, forest stand improvement (thinning), access roads and forest trails and landings, and forest stand improvement (harvest) and riparian forest buffers. Website: <http://www.nrcs.usda.gov/programs/eqip>.

#### **Emergency Watershed Protection Program:**

Also administered by NRCS, the EWP program funds recovery measures from natural disasters such as fires, floods, and tornados to control erosion and sedimentation, establish vegetative cover and clear debris from streams. Website: <http://www.nrcs.usda.gov/programs/ewp>.

#### **Homeland Security, U.S. Fire Administration, Assistance to Firefighters Grants:**

The Assistance to Firefighters Grant Program (AFG) is designed to assist local fire departments to better protect citizens and firefighters. Website: <http://www.firegrantsupport.com>.





# Strategies

There are several strategies to employ in planning to prepare and defend against fire. Here are a few of them:

## Rehabilitation/Restoration

Rehabilitation processes strive to prevent the spread of invasive species and restore watershed functions and biological communities after a wildfire has devastated an area. Restoration processes are long term measures to establish healthy and diverse ecological systems that are designed to minimize the effects of severe fires. Both of these processes rely on application of the best available scientific development along with local knowledge. Rehabilitation and restoration projects should be monitored for effectiveness and evaluation that could improve future applications.

Soon after a wildfire has devastated an area, emergency measures are implemented to protect life and property and to stabilize the area to protect municipal watersheds and critical cultural and natural resources. Conservation districts can provide leadership in these areas in the development and implementation of plans to control erosion and protect water quality.

Long term measures will restore and improve lands unlikely to recover naturally from severe fire damage. Priority should be placed on at-risk watersheds. The establishment of native plant material and efforts to eradicate or minimize the spread of invasive

species will reduce damage during future natural fire events and fire-adapted environments. Restoration measures also include research and observation of the interactions between fire, land management decisions and other disturbances to learn lessons that will improve future management strategies.

The Healthy Forests Restoration Act provides an unprecedented opportunity for communities to develop forest plans. HFRA provides incentives for the Forest Service and the Bureau of Land Management to give consideration to the priorities of local community plans for forest management and hazardous fuel reduction projects.

## Community Assistance

Community involvement is a critical element in restoring damaged landscapes and reducing fire hazards near homes and communities. The Community Assistance Program (CAP) was created to implement the National Fire Plan and assist communities at risk from catastrophic wildland fires. Funding is highly variable each fiscal year. CAP provides assistance in the following areas:

- Develop local capability for assessment and planning, mitigation activities, and community and homeowner education and action;
- Plan and implement hazardous fuels reduction activities, including associated training, monitoring or maintenance on federal land or on adjacent nonfederal land. (Most of

## Strategy Methods

- **Rehabilitation** strives to prevent the spread of invasive species and restore watershed functions and biological communities
- **Restoration** is a long term measure to establish healthy and diverse ecological systems to minimize the effects of fire
- **Community Assistance** was created to implement the National Fire Plan and assist communities at risk from catastrophic wildland fires
- **Community Wildfire Protection Plans** can vary depending on the needs of the community.
- **Hazardous Fuel Reduction** involves the removal of sufficient surface and ladder fuels



these lands are located in the Western United States and Alaska);

- Promote better fire prevention planning and actions in local communities through technical assistance and cost-sharing incentives.
- Enhance local and small business employment opportunities for rural communities;
- Build capacity of rural fire districts by providing education, training, protective clothing, equipment purchase and mitigation methods on a cost share basis.

## Community Wildfire Protection Plans (CWPP)

In order to be eligible for HFRA grants, a community will need to develop a community wildfire protection plan which may include wildfire response and prepared-



ness, hazard mitigation and structure protection. The process of developing a CWPP will draw the community into important discussions about proper management of measures to protect life, property and infrastructure in the wildland-urban interface (WUI). It will help the community clarify and refine its priorities. It will also allow the community to determine its own definition and boundary for the wildland-urban interface.

Without a CWPP, the HFRA limits the WUI to within ½ mile of a community's boundary or within 1 ½ miles when mitigating circumstances like steep slopes or other geographic features that create a fire break exist. Hazardous fuel reduction treatments can occur along evacuation routes outside the community boundaries but at least 50 percent of the project funds must be used within the WUI.

CWPP can vary depending on the needs of the community and the conditions of the WUI. The minimum requirements for a CWPP as described by the HFRA are that it must:

- Be developed with the involvement of local and state government representatives and in consultation with federal agencies (FS, BLM) and other interested parties. Plan approval is required of the local government(s), the local fire department(s) and the state forestry agency.
- Identify and prioritize areas for hazardous fuel reduction and recommend types and methods of treatment that will protect one or

more at-risk communities and essential infrastructure.

- Recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the planned area.

### Preparing a CWPP

1. Establish a Core Team – Conservation districts can coordinate the establishment of the essential planning group which must include local governments, fire departments and the state forester. The group should also include dedicated stakeholders who bring some planning expertise and resources to the effort.
2. Invite Federal Agencies - The core team should invite local representatives of FS and BLM to be involved in the planning process. They may play a major role in the implementation of the CWPP and their expertise will be valuable as the plan develops.
3. Engage Major Stakeholders – A full range of interests within the planning area should be engaged early on and kept informed in order to receive valuable input and endorsement. Representatives from neighborhood associations, community forest organizations, environmental and conservation organizations and other groups that should be involved in fire protection and fuels management.
4. Develop a Community Base Map - The core team and key partners should develop a map of the community and adjacent areas which identifies inhabited areas at risk to wildfire, critical infrastructure including escape routes, water supply, utility and communication



lines and the WUI area. This map will provide an effective visual aid as the plan is being introduced.

5. Develop a Community Risk Assessment – A risk assessment helps the core team prioritize treatment areas and use of resources. State and federal land managers and major stakeholders can provide valuable input in the process of assigning a high, medium or low rating to the prime risk factors in the community. Placing the results on the community base map will serve as a useful tool for the final decisions to be made. The risk factors include:

- Fuel Hazards – evaluate the vegetative fuels on federal and nonfederal land within or adjacent to the community. Identify areas where such fuels, if ignited, would pose a serious threat. Consider how the topography would affect fire behavior. Also identify areas where wildfire risks would be reduced due to forest cover thinned by wind, ice and insect or disease damage.
- Risk of Wildfire Occurrence - Determine the common causes and relative frequency of wildfires in the vicinity. Use historical information, local knowledge and consideration of a range of factors, including critical weather patterns that may contribute to fire ignition. Rate high, medium and low areas of concern for fire starts on the base map.
- Homes, Businesses and Essential Infrastructure at Risk – Assess the vulnerability of structures to fire. Identify and rate on the base map areas needing protection such as homes, businesses and other improvements.

- Other Community Values at Risk – The risk assessment may consider other areas of community importance, such as critical wildlife habitat, significant recreation and scenic areas or areas of historical, economic or cultural value that should be treated to reduce wildfire risk. Identify such areas with a high, medium or low rating on the base map.

- Local Preparedness and Firefighting Capability – Assess and map the level of the community’s emergency preparedness and response capability of fire protection available to the community. Include evacuation planning, safety zones and fire assistance agreements.

6. Establish Priorities and Recommendations - The core team and all interested parties should meet to discuss the results of the risk assessment and mapping. The objective of the meeting is to develop the community’s prioritized recommendations for hazardous fuel reduction in the WUI with preferred treatment methods. The recommendations should include actions that individuals and the community can take to reduce the ignitability of home and other structures. This would also present an opportunity to discuss emergency preparedness and fires response capability. An action plan lists roles and responsibilities, funding needs and a timeline for implementing the highest priority projects.

7. Finalize the CWPP – The core team meets and finalizes priorities, methods and recommendations and other aspects of the final document.

Here are a couple of resources to



consider when organizing a CWPP:

- National Association of State Foresters (NASF) and the Society of American Foresters (SAF) CWPP Handbook: <http://www.safnet.org/policyandpress/cwpphandbook.pdf>
- International Association of Fire Chiefs Leaders Guide: [http://www.iafc.org/associations/4685/files/CWPP\\_LG.pdf](http://www.iafc.org/associations/4685/files/CWPP_LG.pdf)
- and the Supplement [http://www.iafc.org/associations/4685/files/CWPP\\_rev062005.pdf](http://www.iafc.org/associations/4685/files/CWPP_rev062005.pdf)

## Hazardous Fuel Reduction

Hazardous fuel reduction is a major component of most wildfire protection strategies. It involves the removal of sufficient surface and ladder fuels (dead leaves, conifer needles and logs, continuous brush, small trees, excess limbs, etc.) to

## Strategies

prevent a ground fire from building to a crown fire with an intensity that will virtually kill everything in its path. Fuel reduction methods include controlled fire, livestock grazing, and mechanical removal. Thinning trees, removing underbrush, and limbing trees are done using hand crews or machines. Cut material that has no commercial value is ground into chips or piled and burned during the winter. It might also be composted or utilized as trail layers.

There is growing interest and existing programs (see “Woody Biomass Utilization Grant Program” above) to maximize the use of hazardous fuel for useful purposes. New markets in using small diameter roundwood in an array of products are growing. Roundwood can provide fence posts, railings, flooring, paneling, engineered lumber, furniture and even structures. Small diameter stock can also be chipped, peeled or sawed, burned for energy, rendered into organic chemicals or used in composite panels or plastic composites. Collected hazardous fuel can also be processed into wood pellets for the rapidly growing pellet stove industry. The wood is chipped, dried, ground into sawdust and pressed into pellets. Pellet stoves are very efficient and economical and becoming increasingly popular around the country as energy costs increase.

Use of woody biomass for several types of renewable energy is gaining national attention and utilization. Woody biomass can serve as the feedstock for generating electricity in power plants engineered for that purpose. Evolving improvements in

biomass gasifiers can convert woody biomass into a “synthesis” gas (like natural gas) which can be combusted for heat or electricity. Developments in larger scale mobile biomass gasifiers will one day allow remote piles of hazardous fuels to be converted to energy.

A recent study by the U.S. Departments of Energy and Agriculture entitled, *Biomass as Feedstock for a Bioenergy and Bioproducts Industry: The Technical Feasibility of a Billion –Ton Annual Supply*, concluded that actually, 1.3 billion tons of annual biomass feedstock was available and that forestland could provide 368 million dry tons annually or 28% of the supply required. Woody biomass would be provided by fuelwood (52 million tons); residues from wood processing mills and pulp and paper mills (144 million tons); urban wood residues including construction and demolition debris (47 million tons); logging and site clearing operations (64 million tons); and, 60 million dry tons from hazardous fuel reduction treatments.

Research is underway to refine the effectiveness and lower the production costs of bio-engineered enzymes that will allow cellulosic material like wood to be broken down into sugars that can then be fermented into ethanol. Also, bark and wood waste can be converted into bio-oil through a new “fast pyrolysis process”, (superheating and liquefying biomass in the absence of oxygen).

Another growing use of woody biomass generated by hazardous fuel reduction and insect and disease control is the Forest Service’s Fuels for Schools Program, using the collected material as feedstock in school heating systems. Begun as a regional initiative, its popularity has encouraged the Forest Service to expand it’s availability to states and tribes nation-wide. Vermont has 30 schools heated with wood, Montana has five in place with six more underway and Idaho, Nevada, North Dakota and Utah are also converting school heating systems to use woody biomass.







# District Success

## Colorado Districts Help Form Coalition for the Upper South Platte

A good example of conservation districts playing an important role in the organization of an effective partnership is provided by the Jefferson County, Teller Park and Douglas County Soil Conservation Districts.

Established in 1998, the Coalition for the Upper South Platte (CUSP) was originally created to focus on water quality issues in a 2,600 square mile watershed in central Colorado that is a major source of drinking water and recreation. The devastation of the Buffalo Creek Fire and the High Meadow Fire and their aftermath of erosion and sedimentation plus the designation of water quality problems in some sections in the watershed on EPA's 303(d) list had attracted attention to protecting critical source water. The principal partners included four county governments, three towns, state and federal agencies, three conservation districts, water conservancy districts, business and environmental organizations and hundreds of individuals. CUSP leaders believe that the best local partnerships are broad ones.

CUSP began applying for grants to perform assessments and planning. But in 2002, the infamous Hayman Fire burned 137,000 acres in the watershed, the largest fire in Colorado's history. The dominant soil type is highly erosive and rains that followed the fire caused heavy

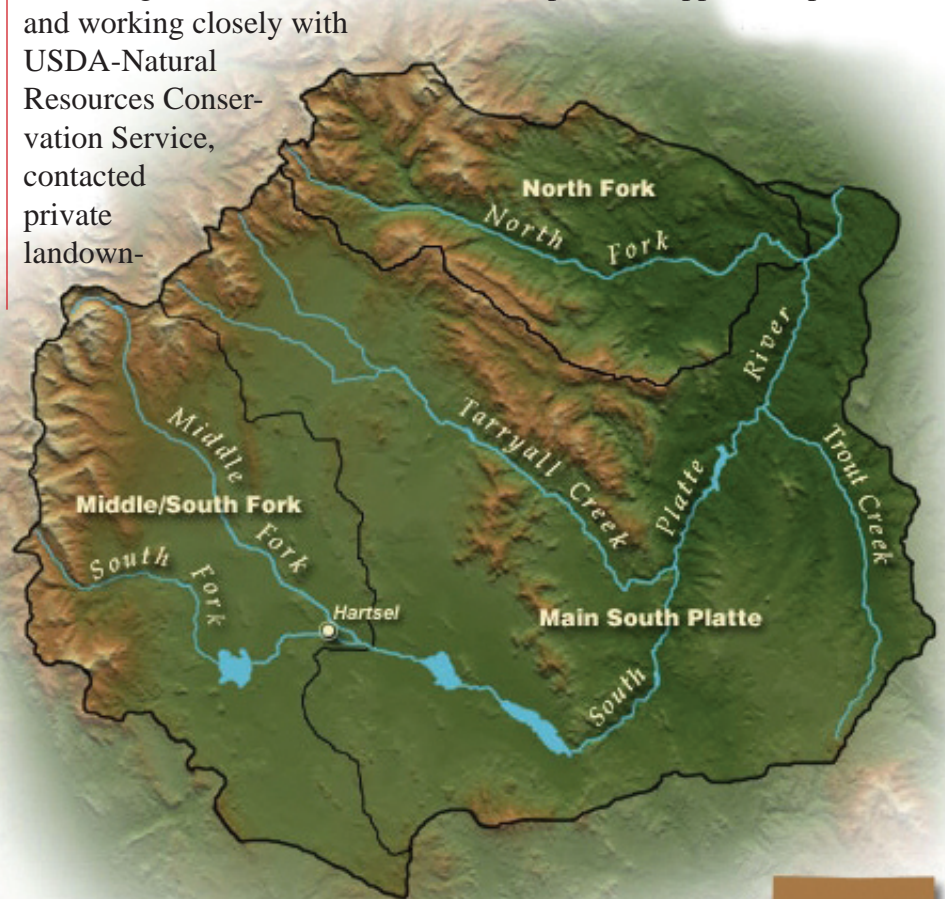
downstream damage to Wigwam Creek with ash and sediment deposits. The Forest Service's Burned Area Emergency Rehabilitation Team (BAER) started work to stabilize burned areas on public land even before the fire was completely out with aerial seeding, hydro-mulching, straw mulching and placing erosion barriers in critical areas.

The conservation districts, coordinating with the Forest Service and working closely with USDA-Natural Resources Conservation Service, contacted private landown-

ers and assisted in rehabilitation work using mostly funds from the Emergency Watershed Protection Program.

"We were fortunate to have this coalition up and running before the Hayman Fire," said Jonathan Bruno, CUSP's executive director. "The conservation districts played an important role in helping the Coalition get started and in implementing post-fire treatment on private lands."

For more information on CUSP, visit the website at <http://www.uppingsouthplatte.net>.



Colorado

### Ciudad SWCD: Forestry Projects for Prevention, Restoration and Protection

For the past several years, the Ciudad Soil and Water Conservation District in Albuquerque, New Mexico, have been leading planning and implementation projects to restore and protect community landscapes from wildfire damage.

One of those projects started in 2003 removes invasive non-native plants such as salt cedar and Russian olive from the Rio Grande Bosque, a riparian forest that follows the Rio Grande through the center of Albuquerque. The invasive species threaten the native cottonwoods, willows and New Mexico olive trees by forming dense thickets and drying up shallow groundwater supplies. The presence of the invasive “phreatophytes” destroys natural diversity, alters wildlife habitat and creates a significant wildfire hazard.

The District hired contractors to remove salt cedar and Russian olives from the Bosque and is one of six conservation districts par-

ticipating in the Upper Rio Grande Phreatophyte Project, funded in part by the State of New Mexico. One of several methods is employed to treat the non-native phreatophytes. Extraction uses large machinery to pull the unwanted plants from the ground, roots and all. In the cut-stump method, used in especially sensitive areas, the plants are cut close to the ground and an herbicide is hand applied to the fresh cut to prevent re-sprouting. Aerial application of herbicide is the most efficient method of treatment in extensive monotypic stands of salt cedar, although it isn’t used in the Ciudad District due to field conditions. All three methods require monitoring and appropriate followup treatment.

The Ciudad SWCD has also been managing the East Mountain Forest Health Program since 2001 in cooperation with the State Forestry Division. The program is created to provide wildfire protection as-

sistance to private landowners and businesses and provide overall improvement of forest and watershed health. The District prepares a site-specific plan to protect a landowner’s property that may contain features such as tree thinning, fuel breaks and other hazardous fuel reduction measures.

Project funds provide 70% of the cost to have the work done according to the plan, and the landowner is responsible for the remaining 30%. The District is also managing a one-year project funded by the state legislature to do similar fuels reduction on public open space in the East Mountains.

These programs were forerunners to the District’s partnership with the East Mountain Interagency Fire Protection Association (EMIFPA) to draft an East Mountain Community Wildfire Protection Plan, currently funded and still under development. The District is the project coordinator. EMIFPA is comprised of representatives from agencies, volunteer fire departments, neighborhood associations, local residents, and businesses. A core team has been meeting since the fall of 2005 to get the process started and is now in the stage of incorporating detailed input from the community into the draft plan.

The East Mountain Community Wildfire Protection Plan is funded by a 2005 Wildfire Risk Reduction Grant awarded by the New Mexico Association of Counties (NMAC) with funding from the Bureau of Land Management (BLM). Additional funding is provided by New Mexico State Forestry and the state legislature.





### Trinity RCD Leads the Way to Community Wildfire Protection

Since 1998, the Trinity County, California Resource Conservation District has been the catalyst in the area's fight against fire.

Trinity RCD has helped to build a conservation community that has been actively working to reduce the risk and damage of wildfires in a 2 million acre northern California county that is 75% forested. The board and staff of Trinity RCD decided to start a locally led process, beginning with the county Volunteer Fire Chiefs Association, gaining the support of the 16 volunteer fire departments that formed the core of one of the earliest Fire Safe Councils (a California program started in 1993, now also in Nevada and Oregon).

The Council received funding to conduct a series of public meetings and workshops and develop a countywide fire management plan,

which was designed to accommodate significant local involvement. After some initial GIS work, maps were made available to community people who marked areas that needed protection and with their intimate knowledge of the landscape flagged areas with wildlife, scenic, historic and recreational significance in addition to the protection of homes, businesses and roads.

Once the mapping was completed, the district was actively involved in gathering community input on where hazardous fuel reduction and other projects should be located. Once implementation began, the district, working closely with NRCS, utilized the Environmental Quality Incentive Program (EQIP) and National Fire Plan grants from the California Fire Safe Council to help local landowners and forestry professionals put

forestry conservation practices on the land.

Trinity RCD and the neighboring district, Western Shasta RCD, employ crews to implement hazardous fuel reduction projects. The woody biomass that is gathered is either burned or composted or chipped to line trails. Both districts prioritize the hiring of local people to help strengthen the local economy, one of the goals of the National Fire Plan and Healthy Forests Restoration Act. Small businesses are also getting started utilizing small diameter wood stock and other forms of woody biomass.

The Trinity RCD has three major recommendations based on their experience:

- develop strong partnerships
- involve local residents' knowledge and expertise
- implement demonstration projects while planning is ongoing to provide vivid examples to participants.





# Resources

Here is a list of agencies and Web sites that can be used to gain more knowledge about fire issues:

## Homeland Security

U.S. Fire Admin., Assistance to Firefighters Grants  
<http://www.firegrantsupport.com/>

## National Association of Conservation Districts



<http://www.nacdnet.org>  
• Forestry Resources  
<http://forestry.nacdnet.org>  
• NACD Catalog of Selected Federal Grants and Assistance

Supporting the National Fire Plan

<http://forestry.nacdnet.org/biomass/Funding>

• NACD Speakers' Bureau

<http://forestry.nacdnet.org>

• Forestry Notes - Special Report: Cost of Fire

<http://forestry.nacdnet.org/forestrynotes/Dec06/special/>

## National Association of State Foresters

<http://www.stateforesters.org/SFlist.html>

## National Fire Plan

[www.fireplan.gov](http://www.fireplan.gov)

• State Fire Assistance

[http://www.fireplan.gov/community/state\\_fire\\_assist.html](http://www.fireplan.gov/community/state_fire_assist.html)

• Volunteer Fire Assistance

[http://www.fireplan.gov/community/volunteer\\_fire\\_assist.html](http://www.fireplan.gov/community/volunteer_fire_assist.html)

## National Forest Foundation

[http://www.natlforests.org/consp\\_06\\_whichprog.html](http://www.natlforests.org/consp_06_whichprog.html)



**National Interagency Fire Center (NIFC)**

<http://www.nifc.gov/>

## National Park Service Community Tool Box

[http://www.nps.gov/phso/rctatoolbox/index\\_comtoolbox.htm](http://www.nps.gov/phso/rctatoolbox/index_comtoolbox.htm)

## National Wildfire Coordinating Group Firewise Campaign

<http://www.firewise.org>

## USDA-Forest Service



• State and Private Forestry

<http://www.fs.fed.us/spf/>

• Forest Health Protection

<http://www.fs.fed.us/foresthealth/>

• Woody Biomass Utilization

<http://www.fs.fed.us/>

[forestmanagement/WoodyBiomassUtilization/opportunities/index.shtml](http://www.fs.fed.us/forestmanagement/WoodyBiomassUtilization/opportunities/index.shtml)

• National Partnership Office

<http://www.fs.fed.us/aboutus/partnership/index.shtml>

• Partnership Resource Center [http://www.partnershipresourcecenter.org/contact\\_us.php](http://www.partnershipresourcecenter.org/contact_us.php)

## USDA - Natural Resources Conservation Service

• Environmental Quality Incentives Program

<http://www.nrcs.usda.gov/programs/eqip/>

• Emergency Watershed Protection Program

<http://www.nrcs.usda.gov/programs/ewp/>

