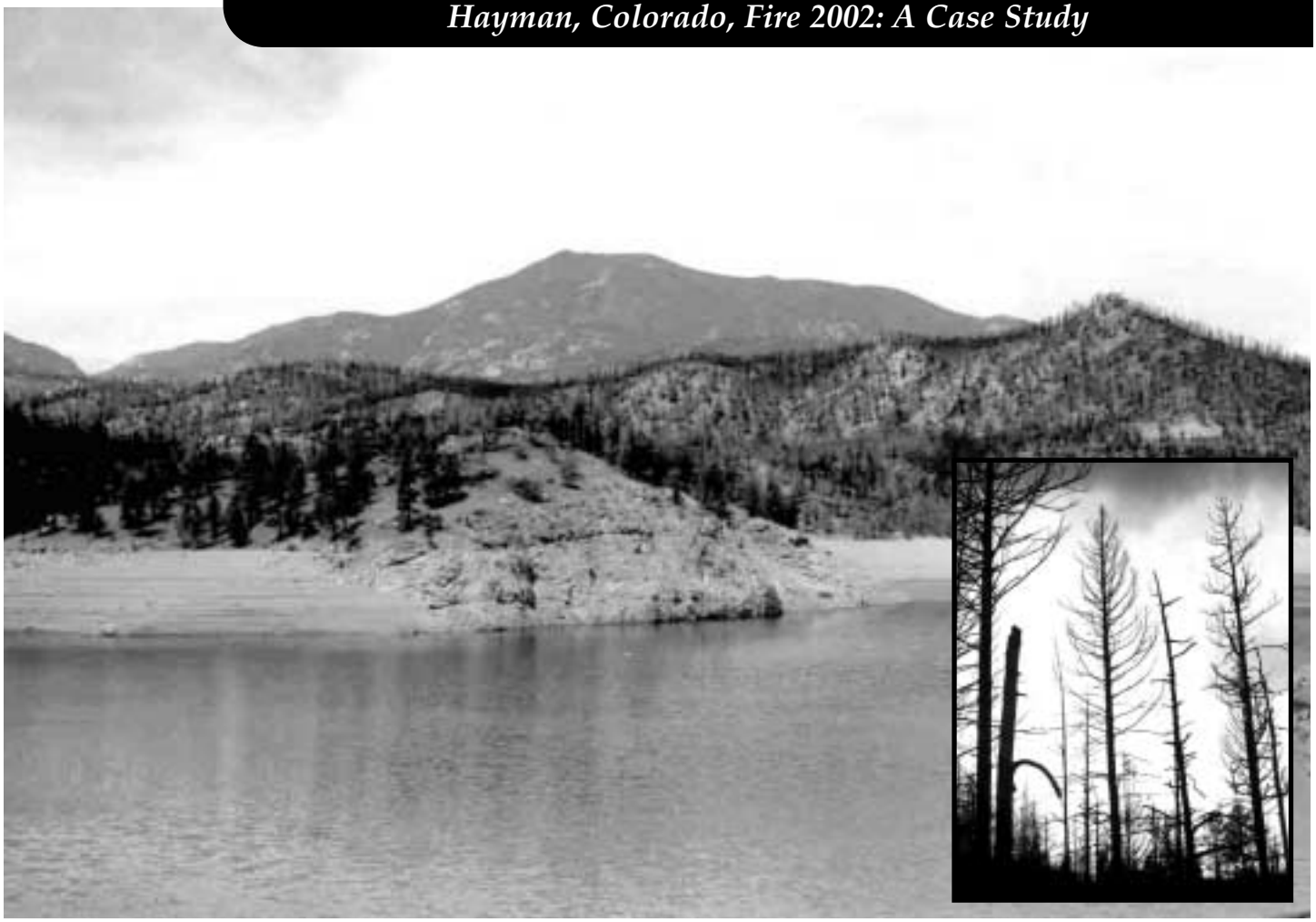
Special Report:

What We Leave On The Land

The Environmental and Economic Impacts of Catastrophic Wildfire
Hayman, Colorado, Fire 2002: A Case Study



"What really matters is what we leave on the land," said Rick Cables, regional forester at the USDA's Forest Service Rocky Mountain region headquarters in Lakewood, Colorado.

Cables visited with a National Association of Conservation Districts contingent. The group was touring the Hayman Fire site and collecting information on a fact-finding mission aimed at beginning an assessment of the environmental and economic impacts of catastrophic wildfire.

The mission was the result of a directive from NACD's Forest Resource Committee, which has made informing the public about the impacts of wildfire a major committee priority. This report is the first step toward that goal.

Forestry is among NACD's top three resource priorities, as determined by its board of directors. NACD also supports efforts by President Bush and those in Congress who seek to reduce red tape and impediments to wise forest management.

What did Cables mean when he used the words "what we leave on the land"? He was talking about the challenges of dealing with wildfire in the 21st century. He cut quickly to the basics. "What we ought to be collectively concentrating on is what is left on the land. If we can agree on that, then the question is how to get there."

The fires of 2002 were the worst in Colorado history. More than 500,000 acres were burned in 2,031 reported fires. Nationally, 6.6 million acres had burned by the end of September, and the fire season wasn't over. While the parched West accounted for most of the acreage, wildfires burned across

Inside:

Massive amounts of sediment threaten watersheds in the wake of fires. Shown is a sediment buildup in Colorado's Buffalo Creek after one of the state's catastrophic wildfires. (USGS photo)

much of the U.S. as drought combined with heavy fuel loads on private and public lands to produce "perfect fire" conditions. The statistics serve as a reminder that wildfires occur in all regions of the country.

Colorado was joined by Alaska, Arizona, California and Oregon in the top five states based on acreage. But 44 percent of the total number of fires actually occurred in the South. Firefighting costs were estimated at $1.5 billion in September. But as this report will show, those costs are just the tip of the iceberg. And the potential damage to watersheds and other environmentally sensitive areas is phenomenal.

Most voices in the debate on forest policy agree that pre-fire treatment offers the best measure of protection against catastrophe. There is common ground when it comes to some priorities. Protecting life and property rise to the top in the public debate and as key elements of the National Fire Plan. Much of the treatment occurs in the so-called wildland urban interface. These are places where homes and communities are endangered by fire on public and private lands.

Cables is joined by a bevy of forest professionals and researchers who say the interface shouldn't be defined too narrowly.

"There's agreement on protecting the interface." He sees the need to broaden the definition of interface beyond the borders of subdivisions in red zones of acute fire danger. "It's bigger. It's clean water, wildlife species, scenery, recreation. When that goes up in smoke, what have we left on the land?"

Then came Hayman

The fires of 2002 won't soon be forgotten in Colorado. In part, that's because people will be dealing with the after-effects for years to come. One huge fire, so-named for a site near where the fire was started by human hand, drew national attention and served to heighten attention about the need to address wildfire and its consequences.

The Hayman Fire torched nearly 138,000 acres from June 8 until July 2. It left 200 square miles of char on public land in the Pike/San Isabel National Forest and on state and private land. Sixteen percent of the fire was on private land. It burned 133 residences and hundreds of outbuildings and led to the evacuation of about 9,000 people as it raged through Park, Jefferson, Douglas and Teller counties. Some of those evacuated made their homes in suburban Denver. A Natural Resources Conservation Service summary of damages to private timber and property was set at $112 million. The direct cost of fighting the fire was more than $31 million, and that number will at least double when the rehabilitation work is done years down the road, according to Forest Service officials.

Hayman's immensity was one reason why it hit home. It was so huge that it created its own weather systems, spawning thunderstorms. It broke rules about wildfire by refusing to settle down at night. It jumped highways.

Hayman also threatened a major metropolitan area as it burned. Hayman ravaged the Upper South Platte River Watershed and reservoirs that provide up to 60 percent of the drinking water for 1.5 million residents of the Denver urban area. Denver Water, the city's water utility, will spend millions of dollars in efforts to rehabilitate the watershed. Attention is especially being focused on the crucial Cheesman Reservoir, where fire burned to the water line in the reservoir, which was already seriously depleted by drought.

Before, during, after

The economic and environmental impacts of the Hayman Fire will be tallied and studied for years to come. This report focuses on some of the specific impacts of that blaze and on the need to address wildfire across the nation.

With "impact" serving as the operative word, the report also highlights what conservation districts have done and can do to address wildfire and its impact on people and resources. Districts can have an impact. They are welcome partners across the nation as five federal agencies, state foresters and an array of local entities work together to enact the National Fire Plan, a 10-year strategy for dealing with wildfire.

Impact: Environment

Bill Gordon is president of the Teller-Park Conservation District. The district found itself in the thick of the fray as the Hayman Fire burned. The Jefferson and Douglas conservation districts were also affected by the fire. A former director of the National Marine Fisheries Service, Gordon knows a thing or two about resource issues.

His assessment of the environmental impacts of the Hayman Fire: "The ecological impacts include watersheds, wildlife habitat, ranching, species composition, restoration, erosion control, water quality, water quantity, endangered and threatened species," he said. "The canyon area of the South Platte was about to be designated to receive wild and scenic status. That's in jeopardy. Then there's the recreation component, fisheries, hunting, hiking. We should be looking at a five-year bite to fully appreciate the extent and repercussions of the fire."

Gordon's assessment pretty much matched those of resource professionals. They all agree on one other thing: There is so much work to be done.

The watershed

The USDA Forest Service Burned Area Report for the Hayman Fire left little doubt about the damage done. "Entire watersheds burned, from ridge to ridge, including the riparian zone. Soil surface conditions are such that revegetation will be slow and spotty," said the report. That's because the fire spread across the shallow granitic soils in the area. These are soils considered to be among the most erosive in the United States. Fed by huge fuel loads on both public and private lands, the Hayman Fire burned so hot that it turned the soils hydrophobic. They repel water.

"An estimated 80 percent of the fire now has soil conditions that will repel water during storm events," said the Burned Area Report, filed in July 2002. A prolonged drought had already parched the soils, and they were repelling water before the fire. Now, the Hayman burn is a Catch 22 for Coloradans. They need rain and snow to end the drought and replenish water supplies, but damaged watersheds are in danger of being loaded with sediment and ash from the fire once that water moves down the mountains.

"Over 1,000 homes are located in or near the fire area, and the water supply for 60 percent of Denver, Colorado, comes from the Upper South Platter River," said the report. There are hints of what could happen. Several large fires have already burned in this drainage over the past six years, leading to significant erosion in the Strontia Springs Reservoir, owned by the Denver Water Board. The utility estimates that it will cost between $10 million and $20 million to dredge fire debris from Strontia Springs. That bill will be passed on to Denver Water's 1.5 million metro customers, as was the cost of correcting $2 million in damages to the Strontia Springs water treatment plant.

Resource professionals ruefully acknowledge that Hayman's impact could be worse. Denver Water has aggressively sought to mitigate the fire's impact on the Cheesman Reservoir. It has lowered the already depleted reservoir and erected erosion barriers.

Official are hopeful, but also practical in their assessments about the future. Superintendent of Reservoirs Kevin Keefe put it this way in a Denver Post article: "Cheesman is just a wide spot in the river. The entire (South Platte) river from Lake George to Deckers may be susceptible to the same types of problems. Small rains will bring ash. Large rains will bring everything else."

Seek high ground

In burned areas where people still make their homes, signs warn, "In case of flooding, climb to safety."

Hayman Fire Facts

Location: North of Lake George, Park, Jefferson, Douglas and Teller counties, Colorado.

Date of Origin: 6/8/02

Size: 137,760 acres

Cause: Human Caused

Contained: 100 percent

Containment Date: 7/2/2002

Structures Lost:
Residences: 133
Commercial: 1
Outbuildings: 466

Resources Threatened:
Communities, subdivisions, and isolated homes. Gas transmission lines, electrical facilities and lines, timber, major watershed for Denver County and recreation areas.

Partial Costs

- $31.7 million in suppression costs.
- $24.8 million in USDA Burned Area Emergency Rehabilitation funding authorization.
- $9 million-plus in Emergency Watershed Protection funds, administered by USDA's Natural Resources Conservation Service targeted to crucial needs on private land and some state-owned property. State and local source provide $2.3 million of the total as a match.
- $59 million in near-term damage reduction, as estimated by NRCS.
- $112 million in total damage to timber, acres, homes and other structures on private lands: NRCS.
- Uncalculated but significant impacts on tourism trade and local economies.

The Forest Service report shows that the signs are prudent. "Field reviews indicate that many homeowners are located in areas at high risk to flooding from fire conditions upslope on NFS (National Forest Service) lands. In addition, several homes are located on floodplains that will experience flooding during significant storms."

Another kind of sign is common in burned areas and it reads, "For sale." Property values have plummeted in these areas, and homeowners' insurance is often unavailable.

Those who live in the burned zones may not be the only ones who have to cope with flooding and sediment slides. The Forest Service report on Hayman noted that roads, particularly crossings, in some areas are designed to pass storms of "25-year or less return interval…Projected storms will be up to two orders of magnitude higher. These roads are heavily used by forest-users, particularly in the summer months, when the strong convection storms are most common."

As the summer drew to a close, newspapers in Durango, Denver and other communities told of mudslides, ash flows and flash flooding from fires. Some of the worst damage was in the Vallecito Reservoir, which serves Durango and other communities. The 70,000-plus-acre Missionary Ridge Fire of this year was responsible for that.

Lessons learned

"Watersheds are probably the most important thing we're going to have trouble with," said Bill Wallis, Colorado fire manager for the federal Bureau of Land Management.

This summer's fire experiences in Colorado won't be the last, he added. "It's going to continue to be just like this. This is the tip of the iceberg of the problems we're going to have. We have population growth, and fuel loads are getting worse."

Wallis and other resource professionals note that there are a few good things to say about the future. "Counties in Colorado are starting to get serious about how they zone and build roads," he said.

Mike da Luz is National Fire Plan coordinator for the Forest Service's Rocky Mountain Region. Like many other Forest Service employees in this and other regions, he's also in the thick of the fray when wildfires strike. They drop whatever other duties their titles require of them and become firefighters. From that experience, da Luz is firm when it comes to addressing fire. "We believe we can do something with wildfire," he said. "The dilemma is, there's a lot more demand for treatment than we can ever have dollars for."

Broaden the interface

Few will disagree that it's important to make defensible the places where people live and work. Da Luz and others in the Rocky Mountain Region think it must go well beyond that. If Hayman did anything, it reinforced their point. "Some say just protect the back yard. Hayman jumped up and ran 19 miles and affected the water of Denver." The lesson? "The interface needs to be broadened," he said. Funding that approach will be a challenge, he said, and there are other issues. "There's a wide range of social values. Do you want to cut it? Do you want to burn it? What about asthma and air quality issues?"

Now is the time to work through these issues, he said. "You only get awareness post-event. You don't get it pre-event." The National Fire Plan lays out strategies for addressing many of those issues. But it will take cooperation from federal, state and local, public and private stakeholders.

The Fire Plan was created to have an impact nationwide. It's necessary, too, said Jim Lawrence, executive director of the Western Forestry Leadership Coalition.

His group and others work to build consensus and cooperation to address the challenges of wildfire. Lawrence has seen progress, but sees the need for much more.

Da Luz put it this way: "The question is, how do we develop community-based consensus for treatment. What is in it for the community? How does it affect them?"

Bjorn Dahl, director of cooperative forestry in the Forest Service's Rocky Mountain Region, said it's time to sift through these issues. "We all have to join together and develop fire effects assessments. We need watershed asssessments, and we need to do it on a broad scale, on the natural resources side and on the economic side. Then you determine what pieces you can deal with, then determine what resources are available."

Da Luz and Dahl both made note of the economic demands of the task ahead. The question seems to arise: Is it money well spent? It could be put another way: Can we afford not to spend it? Let's look at the costs that wildfires produce for some possible answers.

Signs like this are seen in fire-damaged areas of Colorado. They are a stark reminder that the dangers of fire linger long after blazes are contained.

Hayman Fire Impact: Economic

Totaling up the economic impacts of wildfire is a bit like counting trees on Colorado's abundant ponderosa pine forests. Yonder is another ridge, and more trees on the other side.

The numbers cascade wildly:

•$31.7 million in suppression costs alone for the Hayman Fire.

•$24.8 million in USDA Burned Area Emergency Rehabilitation funding authorization.

•$9 million-plus in Emergency Watershed Protection funds, administered by USDA's Natural Resources Conservation Service targeted to crucial needs on private land and some state-owned property. State and local source provide $2.3 million of the total as a match.

•$59 million in near-term damage reduction, $34 million alone in the Cheesman Reservoir area, as estimated by NRCS.

•$112 million in total damage to private timber, acres, 133 homes, one commercial and 466 outbuildings in the Hayman Fire.

•$70.3 million in insured losses caused by Colorado's Hayman, Iron Mountain, Coal Seam and Missionary Ridge fires of 2002, according to the Rocky Mountain Insurance Information Center.

•$160 million to $180 million in direct economic impact from this year's Colorado fires, according to Bill Wallis, Bureau of Land Management. Rehabilitation costs will double that number, Wallis estimates.

•Uncalculated but significant impacts on tourism trade and local economies. Lost revenues occur in categories that include accommodations, food and beverage, retail, attractions and employment. Estimated at $7 billion a year, the state's tourism industry is an integral part of Colorado's economy.

Most of the above costs address immediate conditions. The numbers will continue to tumble in for several years. Restoration of the fire site alone is estimated to be at least double the $31.7 million in suppression costs for Hayman.

A sea of costs

With high fuel loads across much of the Rocky Mountains, fire experts predict many more costly fire seasons. Lingering drought and other factors enhance chances that fires will grow big rapidly.

The question arises: Can we afford these kinds wildfire economic impacts? Not in Jim Hubbard's mind. Hubbard is Colorado state forester.

"The American public can no longer afford the enormous costs associated with fighting and cleaning up wildfires, nor can we continue to see a US Forest Service lock down each summer," Hubbard said. "Work must go on." He was referring to the immense costs of wildfires and their impact on Forest Service resources and personnel. State and local entities also bear their share of the wildfire burden, Hubbard said.

Hubbard is also lead for the Four Corners Sustainable Forests Partnership, a coalition of diverse interests spearheaded by state foresters in New Mexico, Colorado, Utah and Arizona. The partnership began in 1997 as western state foresters sought ways to deal with increasing risks for catastrophic fire and insect outbreaks in forest ecosystems as well as a declining capacity in communities to deal with forest restoration and maintenance needs. Forest restoration and community issues common throughout the region are key areas of interest.

Hubbard is joined by a wide array of resource and citizens groups, both public and private, advocating forest treatments that include thinning and prescribed burns. Research by Drs. Kenny Lynch and Kurt Mackes at Colorado State University shows that Colorado costs per acre for fighting fire, can range from $250 per acre all the way to $1,700 per acre. Those are just direct firefighting costs to the Forest Service and don't include restoration.

Merrill Kaufman, a research forest ecologist for the USDA Forest Service Rocky Mountain Research Station in Fort Collins has been studying the effects of fuel treatment on wildfire activity in the Hayman area.

"As a scientist and resident of a Front Range community, I am troubled that we still have room for 400 more 10,000-acre fires, or 40 or more Hayman-size fires, any of which could occur in much more populated areas," Kaufman told reporters.

Kaufman and other forest researchers have studied the history of ponderosa pine stands in the region and found that historic stands were much less dense and were impacted by fires of less intensity.

Of the three environmental factors that contribute to wildfire – weather, fuel and topography – only fuels can be measurably altered through mechanical means and prescribed fire treatment.

Forest Service officials cite the behavior of the Hayman Fire as an example of the value of fuel treatment. They credit a prescribed burn/thinning project in the town of Deckers for diminishing the fire's intensity and course, allowing firefighters to build a fireline around a major portion of the fire for containment.

Research on ponderosa pine stands in Montana, Washington, California and Arizona indicates that fuel treatment works to diminish fire intensity. "We found that crown fire severity was mitigated in stands that had some type of fuel treatment compared to stands without any treatment," concluded researchers Jolie Pollet and Philip Omi of the Department of Forest Sciences at Colorado State University in Fort Collins.

Many forestry professionals believe that fuel treatment before major fires is less costly and less destructive than blazes like Hayman.

Bad as it was, the Hayman Fire again provided a lesson: Fuel treatment can lessen fire intensity.

Impact: Action is long overdue

Catastrophic wildfires such as Colorado's Hayman Fire have led to a growing consensus that wildfires are too risky and too costly to go unaddressed.

Years of too much fire suppression have created unnatural fuel loads in much of America. A prolonged drought has exacerbated the situation. Population trends that see major migrations of people to locations near public land masses have put millions of Americans and their property at risk of wildfire.

Bosworth speaks

USDA Forest Service Chief Dale Bosworth drew a clear picture of what needs to be done in a McClure Lecture at the University of Idaho in Moscow on Sept. 18, 2002.

"We're not talking about treating every acre at risk of catastrophic fire…Even if we had the means, it might make more sense in some cases to leave the land alone. We've got to strategically focus our projects where they will do the most good, where they will help us achieve the desired future condition of the land.

"Some of the highest priority areas are where the risk to people, property, and wildland resources is greatest. Those are often the areas next to or near to the wildland urban interface.

"Other high-priority areas are in or near our municipal watersheds. Some projects might be designed to restore a healthy landscape mosaic or the original open pine forest. For all of our projects, we've got to carefully monitor the results and adapt our management accordingly.

"I want to stress that we can't do it alone. The days are gone when we could just narrowly focus on national forest land. Today, we need to think strategically on a landscape scale. That means connecting our fuels and forest health treatments to our efforts to help homeowners make their properties fire safe. It means engaging our state and local partners, including our local communities, in deciding what our priorities should be.

"So we know what to do, and I see a lot of opportunities in it for everybody. Ecologically, we can benefit the land by restoring ecosystems to something resembling their historical condition. Socially, we can benefit our local communities by helping folks make themselves safer from wildland fire. Economically, we can benefit our citizens by providing jobs and by helping them take advantage of local business opportunities to utilize excess trees and brush."

Conservation district roles

Increasingly, conservation districts have been recognized as key collaborators on National Fire Plan activities. Districts are becoming more involved in education, fuel reduction and fire restoration activities by the day.

In Colorado, the Upper South Platte Protection Agency has been named to coordinate watershed restoration activities in the wake of the Hayman Fire. Three conservation districts, Douglas, Jefferson and Teller-Park, are charter members of the association. Districts are voting members of the board. Conservation districts are active on many fronts. Funding for projects is funneled through the association to local groups, such as districts.

Districts are also involved with administering the Emergency Watershed Program in cooperation with NRCS. NRCS can't release the funds directly to private interests, so districts serve as the pass-through agencies. When districts serve as sponsors, they must come up with the 25 percent state/local match for the program. "We've done that with grant money, and we've also solicited funds," said Sally Lobel, Jefferson Conservation District manager. Volunteer hours can also serve as part of the match.

Among other activities:

•The Teller-Park District focuses a

Restoration efforts at the Hayman Fire site are demanding. Reseeding is accomplished through the efforts of local volunteers and high-tech equipment, like this helicopter.

variety of educational activities on forest stewardship and better management of forested land, according to President Bill Gordon. “We work with homeowners associations to encourage stewardship. Some of them said, ‘We moved to Colorado to live in the trees. We don’t want you guys to mess this up.’ But the fire has gotten people’s attention.”

•Districts met prior to this fire season to share previous experiences, said Karen Berry, a board member with the Jefferson Conservation District. The district works hard to educate private landowners about defensible space and “zeri-scape,” or low-impact landscaping using drought-resistant planting.

•Jefferson District Manager Sally Lobel serves as the first contact in her county for private landowners affected by fire. This helps speed NRCS’ property assessments, which in turn leads to release of Emergency Watershed Protection Program funds.

•Districts are working with the Colorado State Forest Service on developing brochures that will link landowners with immediate contacts in the wake of fire. “Their house might be safe, but they have all these other post-fire impacts to deal with,” said Berry.

•Volunteers are of major assistance in restoration activities. The Jefferson district has partnered with NRCS in volunteer training and coordination efforts.

•The Teller-Park District sought and received a Community Assistance grant through the state forester to conduct a study of potential business opportunities for use of wood products derived from hazardous fuel reduction projects. The study is ongoing, but early findings show many of the wood products used in the state come from outside its own borders, said Gordon.

Partners aplenty

As the consensus for action grows, partnerships are building. Conservation districts have a big role locally.

Impact: Tourism

Message from Montana

Colorado is still totaling up costs from the Hayman Fire and other major blazes in 2002.

One area that’s hard to asssess is tourism, in part because it is so multi-faceted. There can be little doubt that tourism revenues were hurt by this year’s wildfires, and a report released in June 2002 underscores that catastrophic wildfires have a major impact on tourism.

Montana endured its worst-ever fire season in 2000. Statewide, fires burned 597,907 acres. Although the fires were widespread, much of the impact was concentrated in western Montana. What was the impact on tourism? A grant from the U.S. Economic Development Administration’s Economic Adjustment Assistance Program helped the Missoula Area Economic Development Corporation find some answers.

Researchers at the Center for Applied Economic Research at Montana State University-Billings focused on the economic impact of Montana’s disastrous 2000 wildfires on the state’s tourism industry.

Some key findings:

•Economic losses probably exceeded $27 million, concentrated in western and southwestern Montana counties.

•Outfitters in Montana lost from $9.7 to $10.9 million in sales due to the fires. Outfitters’ cash-flow is likely to be affected for years to come because they rely on repeat customers for 80 to 90 percent of their business.

•Tourist visitations at 75 major attractions were down 297,577 from a six-year average. While 45 percent of the decrease was at attractions within the fire areas, 55 percent was at attractions outside the fire areas.

•Accommodations, food, beverage and retail vendors lost between $15.2 and $19 million.

•While 72 percent of direct gross losses were in counties within fire areas, 28 percent of the losses were in counties outside the fire areas. This statistic, combined with the information on declines in visitations to statewide attraction, led the authors to this conclusion: “Clearly, the 2000 wildfires affected tourism throughout the state.”

Researchers used surveys, interviews and other information-gathering processes to build the report.

Along the way, they solicited many comments from individuals directly affected by the 2000 wildfires. Among the repeated comments flagged by researchers:

•“The news media perpetuated the belief that all of Montana was burning and thus directly and significantly negatively affected tourism in the sate, even in areas without fire danger.”

•“The US Forest Service and state government officials prematurely or unnecessarily closed access to land.”

•“Strong dissatisfaction with the (lack of) disaster relief available through FEMA and the SBA loan program.”

Researchers also made this conclusion:

“Montana’s tourism is at risk. Large, intense fires such as those that occurred in 2000 will happen again unless steps are take to treat forests, especially in lower elevations.”

Dick King, executive director of the Missoula Area Economic Development Corporation said thanks to the report, the handwriting is on the wall. “Treatment of the forest is pretty darn important if Montana is going to protect tourism.”

Districts in Colorado have found good cooperation with their state forester, said Gordon. State foresters play a key role in implementing the National Fire Plan, along with the Forest Service and the Department of Interior's Bureau of Land Management, Bureau of Indian Affairs, Fish and Wildlife Service and National Park Service. State foresters oversee Community Assistance Program funding in the Fire Plan. The other agencies manage various other program elements and grants. Districts and other local entities need to be on-board if there's any chance for success, said Colorado State Forester Jim Hubbard.

"The key to long-term success is connecting the landscape and treatments on the landscape with the community. If you don't have the community's longterm involvement and support, none of this can happen. If you do, all kinds of obstacles can be overcome."

Linking and educating

The Western Forestry Leadership Coalition is a state-federal partnership based in Colorado. It works with landowners and other groups promoting wise forest management.

Wildfires have had and will continue to have a major impact throughout the country, said Executive Director Jim Lawrence. "This year, 22 people have lost their lives on wildfire suppression activities. We're not just talking about the cost in dollars. We're talking about impacts on families, friends, communities.

"In many places in the West, our ecosystem hasn't been able to function. People are building into it, we've been suppressing fires, the system is out of balance. Until we can treat real critical areas and link them strategically, we're going to have troubles. It's time to get to work, and we need everyone," Lawrence said.

It's important to protect lives and property, but attention must also be focused on landscape-scale fire treatment to protect precious resources, he added.

"The sustainability of a watershed is tied to the sustainability of a forest, and those watersheds are the sources of some of the best water we have in America," Lawrence said.

The National Fire Plan provides an implementation strategy to help local, state and national partners move forward in efforts to return some balance to the system.

As Regional Forester Rick Cables put it, "What really matters is what we leave on the land." The Hayman Fire and other blazes in Colorado this year are graphic evidence that his words should serve as a call to action.

RESOURCES

Hayman Fire Web site: www.fs.fed.us/r2/psicc/fire/hayman/

Four Corners Sustainable Forests Partnership, a state and federal collaboration that builds linkages between healthy forest ecosystems and healthy communities. Web site: www.fourcornersforests.org Contact: Jim Hubbard, Colorado state forester, 970-491-6303

Western Forestry Leadership Coalition, state and federal forestry leaders working collaboratively to address critical forest resource issues across ownerships and jurisdictions in America's West. Web site: www.WFLCcenter.org Contact: Executive Director Jim Lawrence, 303-239-3811, James.Lawrence@colostate.edu

National Association of Conservation Districts Web site: www.nacdnet.org. Includes information about conservation district forestry activity. Publications include an archive of Forestry Notes newsletters, "Conservation Districts' Role in Implementing the National Fire Plan," "Working with the USDA Forest Service, A Primer for America's Conservation Districts," and "Special Report on NACD's Forestry Activity Survey."

National Fire Plan Web site: www.fireplan.gov. Provides comprehensive information on national, state and local collaboration in the 10-year National Fire Plan strategy.

USDA Forest Service Rocky Mountain Region Web site: http://www.fs.fed.us/r2/

Firefighters who battled the Hayman Fire were greeted with signs of thanks throughout the huge burn zone.