

Counties Give Wildfire a Run for Its Money

IN THE GREATER HELENA, MONTANA AREA, wildfire survivability is a hot topic.

With awareness of the problem growing, so too are solutions—including efforts to stem the effects of wildfires on the private and public lands that expand beyond Montana’s capital city.

Roadsides, hillsides and open-space areas are being treated to reduce fire fuel loads. Neighbors are joining neighbors to protect their homes and properties—nestled amid the heavy timber—from catastrophic wildfire.

It is all part of a bigger plan to fortify a three-county area in western Montana that is home to the city of Helena.

Wildfires have hit these counties—Lewis & Clark, Jefferson, and Broadwater—more than once. Many are hoping that the next time fire comes, it will be a different story.

Trial by fire

Local efforts to change the landscape of wildfire began in 1984, after a fast-moving fire swept through both private and federal land, jumping the Missouri River and burning into a designated wilderness area.

For many, the damage left an indelible mark. Clearly, a wildfire prevention effort was needed, especially since homes were being built in the area.

So Sonny Stiger, a retired fire behavior analyst with the U.S. Forest Service, organized the Tri-County Fire Working Group, a volunteer group of citizens, foresters, fire service personnel, elected officials and timber contractors from the three counties.

Initially, the group’s goal was to better educate citizens and local governments about wildfire mitigation as a means of reducing future fire losses.

Early efforts were painstakingly slow. There was little money to fund prevention education activities. And few people at that time recognized the long-term effects, and dangers, of an emerging wildland/urban interface.

Four years later, wildfire struck again—this time burning about 80,000 acres in Jefferson County. It was yet another wake-up call, officials say, that wildfire mitigation efforts needed to be stepped up. People were continuing to build and live in wildland areas, unaware that their choices were potentially putting them at risk.

Measuring the risk

The landscape in the tri-county area is breathtakingly beautiful, and perilous. Much of it is heavily timbered hillsides, steep slopes and native grasslands. The distant horizon is dominated by the rugged peaks of the Rocky Mountains.

Lewis & Clark County is the largest in population—about 56,000 people—and land mass, sprawling about 3,500 square miles. Roughly 66 percent of the land is government-owned. There are four federal forests and three designated wilderness areas, one of which, the Helena National Forest, spills over into neighboring Jefferson County.

Jefferson County adjoins Lewis & Clark from the south and borders the Helena metro area. It is about half the size and about one-fifth the population of Lewis & Clark but likewise is seeing growth, and risk, in the wildland/urban interface.

Broadwater County, just east of Jefferson, is the most rural of the three—about 1,200 square miles dominated by large ranches and forested areas on two mountain ranges that sweep down into a populated valley. About 4,400 residents live in the county, some with homes that hug timbered tree lines. Though Broadwater County doesn’t yet have the same level of residential development in the interface as the other two counties, the terrain and propensity for wildfire put the residents who are there at risk.

Mindful that the population growth would continue, the tri-county group launched a mapping initiative shortly after the 1988 wildfire to identify the level of risk for the interface areas of three counties.

Pat McKelvey and
Montana Governor
Judy Martz



The effort took years to complete because money to fund the work was in short supply, but the group's determination never wavered. In 2000, a grant from the Federal Emergency Management Agency (FEMA) helped finish the job.

The result is a Fuel Hazard Rating Map, which geographically shows the level of risk—from low to extreme—in the interface areas, much like a floodplain map does for flood-prone areas. The map now helps local, state and federal agencies focus their efforts and resources on wildfire mitigation projects in the highest-risk areas first. Current and future homeowners can use the map as well to see how vulnerable they may be to a wildfire.

Converging forces

In 1999, wildfire flared again. Several homes in Lewis & Clark County were threatened but this time there was a survivor—one home that had been surrounded by defensible space. Suddenly, wildfire mitigation was beginning to make sense.

That same year, Lewis & Clark County—also at high risk for earthquakes—pledged to become an all-hazards, disaster-resistant community. The move brought seed money and technical assistance to bolster its mitigation efforts. Little did anyone know that a virtual firestorm was about to strike.

Drought conditions in the summer of 2000 brought Montana its worst wildfire season ever. Months of fires claimed more than one million acres throughout the state.

In the tri-county area, there were at least five major fires—one of which cut off escape routes for wildland residents in Lewis and Clark County, preventing them from fleeing to Helena.

Fortunately, no lives were lost and countless homes were saved, which local officials attribute to effective firefighting. Nonetheless, the fires did take a toll, claiming nine homes and more than 50,000 acres among the three counties.

In the wake of those fires came a new understanding of, and commitment to, wildfire mitigation for both government officials and residents.

Mitigation fires up

Since then, there has been a flurry of activity throughout the tri-county area, which local officials credit largely to the efforts of Pat McKelvey, project manager for prevention and mitigation for Lewis & Clark County.

McKelvey was hired in October 1999 to coordinate the county's disaster-resistance projects. Now, he also facilitates the efforts of the Tri-County Fire Working Group, helping with project development, building public-private partnerships and finding the money to turn planned mitigation into reality.

On a grand scheme, McKelvey says, the biggest need throughout the three counties has been to reduce the fuels on which a wildfire can feed and spread.

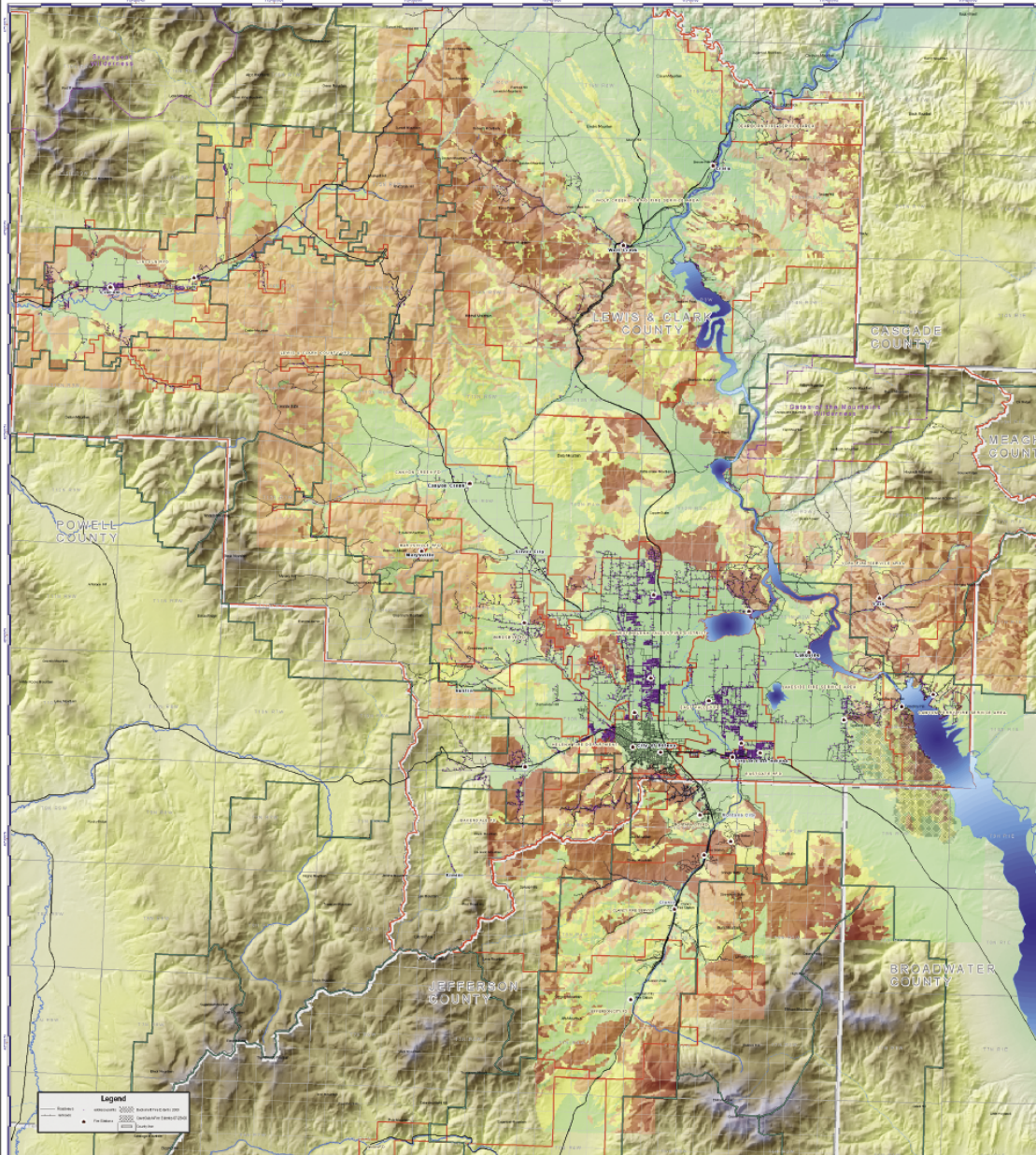
With such a large area in need of work, the Tri-County Fire Working Group turned to the Fuels Hazard Map to begin prioritizing its efforts.

The starting place was easy to pick. According to the map, the area in and around Helena is rated as an extreme danger because of the fuel loads there—a critical point given the city population and the interface growth.

So the group partnered with the city's parks department to create fuel breaks on Mt. Helena, a 950-acre city park that sprawls across one of two large hills at the edge of Helena.

Fuel Hazard Rating

Tri-County Area
Montana
2002
updated August 13, 2002
Counties of
Broadwater
Jefferson
Lewis & Clark



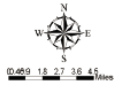
Note:
Ratings are based on slope and wildland fuel conditions at the time of the surveys. Hazard ratings are general and can be reduced.

FOR MORE INFORMATION ABOUT REDUCING YOUR RISK OF DESTRUCTIVE WILDFIRE CONTACT YOUR LOCAL FIRE DEPARTMENT OR:
the Montana Department of Natural Resources (DNR) (406) 444-3633
the US Forest Service (USFS), Helena (406) 448-5496

FIELD WORK PERFORMED BY:
Montana Prescribed Fire Services, Inc. (MPFS) (406) 248-5307 HQ,
or (406) 238-4185 Field Office.

Fuel Hazard Rating

- 1 - High fuel hazard (highly combustible) with high density and high crown cover
- 2 - High fuel hazard (highly combustible) with high density and high crown cover
- 3 - High fuel hazard (highly combustible) with high density and high crown cover
- 4 - High fuel hazard (highly combustible) with high density and high crown cover
- 5 - Medium fuel hazard - Minimal fuel reduction needed to reduce to lower hazard class
- 6 - Low fuel hazard - Minimal fuel reduction needed to reduce to lower hazard class
- 7 - Low fuel hazard - Minimal fuel reduction needed to reduce to lower hazard class



A fire in that park could be devastating, beyond just losing the natural resources. If a wildfire were to burn up the slope, it could take out emergency communications towers atop the hill that service the sheriff's office and the fire dispatch center. Or, prevailing winds could easily push a fire down the slope and into Helena.

Using a combination of pruning and thinning trees, and removing "ladder fuels"—low vegetation that can spread a fire to the tree-tops—about 40 acres were treated on Mt. Helena and around two subdivisions on the city's south side that could be in the path of a fire. The fuel breaks will both slow the spread of fire and provide a buffer zone from which



Mt. Ascension

firefighters can mount a defense to keep a fire from spreading to the city. The \$77,000 project, funded by FEMA, was completed in 2003.

On the other hill, known as Mt. Ascension, the tri-county group hired a contractor to thin about 25 acres on a 144-acre tract of land—again to help better control a wildfire. The project now helps to protect about 25 homes within the city of Helena and has motivated adjacent landowners to create defensible space projects on their own properties, which increases the overall benefit of the work.

Bringing the message home

Though these two projects are considered critical first steps, McKelvey is quick to point out that successful mitigation takes more than treating public lands. It also takes the efforts of private landowners.

To that end, McKelvey and the tri-county group developed a program to help individual homeowners in all three counties at risk for wildland/urban interface fires better protect their residences.

The idea of the voluntary program is to encourage homeowners to do “disaster-resistant landscaping” up to 150 feet from their primary residences, with the aim of improving the home’s survivability in a wildfire.

Examples of approved landscaping methods include pruning trees, thinning densely

forested areas, cleaning up downed material such as trees and brush, and disposing of leftover vegetation debris.

To provide more incentive, participating homeowners can get 75 percent of their costs, or a maximum of \$1,000, reimbursed by the tri-county fire group. The homeowner must pay the remaining 25 percent—in cash or sweat equity—and anything above the \$1,000.

To determine eligibility for the program, a site inspection of the home and property is done by a member of the tri-county group to assess the level of fire risk due to vegetation. If the home qualifies, the inspector and homeowner jointly develop a defensible space plan for the property.

The homeowner then has a few months to have the work completed and the fire hazard abated. The treated condition must be maintained for 10 years or until the homeowner sells the property.

As of April 2003, about 220 homeowners in all three counties had participated in the program. McKelvey is using a \$250,000 grant from the National Fire Plan, a cooperative effort among the U.S. Forest Service, the U.S. Department of Interior and the National Association of State Foresters to help manage the effects of wildfires on communities and the environment.

McKelvey is pleased with the numbers and eager to see even more participation. The program was a hard sell in the beginning, because many homeowners like living in a wooded area and don’t want to sacrifice their trees.

“There’s a real anxiety here to cutting trees,” McKelvey says. “They think we want to come clearcut the trees out to 150 feet and that’s not what we’re doing. Mitigation work doesn’t mean totally removing all the fuel and the trees. They can still have an aesthetic landscape.”

In reality, McKelvey says, the landscaping work not only helps to reduce the fire risk,

but it promotes good forest health, provides wildlife habitat and preserves the beauty of the area.

The idea is catching on. McKelvey gets new applications for the program every week.

“We’re finding that once we do one property, we get more calls,” McKelvey adds. “Word-of-mouth and seeing these things done is the best way to spread the message.”

The tri-county group now has expanded the program to include larger parcels of woodlands that are not adjacent to a home and privately owned land that adjoins key roadways.

Paving the way

The landowner roadway projects are critical, McKelvey says, because they tie in with yet another tri-county project: roadside fuels treatments for public-access roadways.

The goal of the roadside mitigation project is to reduce forest fuels up to 150 feet on either side of roads that are open to the public. Doing so improves emergency vehicle access, increases the effectiveness of the roads as fire breaks, provides safe escape routes for homeowners in the area and enhances firefighter safety during a wildfire.

The projects—funded by another National Fire Plan grant—ultimately will provide a fuel break for the whole city of Helena, McKelvey says, because the roads generally parallel the city limits.

In another case, the existing road system that rings an entire subdivision is being treated, thanks to the efforts of the local homeowners’ association.

Though fuels reduction projects are helping to minimize a current threat, Lewis & Clark County officials also want to impact future development in the interface, thereby breaking the “disaster-rebuild-disaster” cycle.

To do that, they’ve created uniform Wildland Subdivision Standards that aim to better protect new residential developments in the county’s interface areas.



Chipping the slash on a hillside near Helena

The proposed standards—expected to be adopted by county commissioners in 2003—provide uniform, minimum requirements for such things as subdivision design, fire protection availability, water supply, access/evacuation, roof materials and fire protection plans.

Once approved, the standards will have the regulatory force of an ordinance and will ensure that future subdivisions mitigate for wildfire. The standards also will prevent development from increasing the fire hazard because of poor roads, lack of water and/or not providing defensible space around homes.

“With all subdivisions, you need ingress and egress, otherwise you put people, including our volunteer firemen, at risk and I personally refuse to do that,” says Mike Murray, a Lewis & Clark county commissioner and member of the tri-county group. “As an elected official, I will no longer approve a subdivision with the same egress. There has to be a second way out.”

Individual fire departments in Jefferson County do the same type of review, according to County Commissioner Tom Lythgoe, also a member of the Tri-County Fire Working Group.

Broadwater County Commissioner Elaine Mann said that all new subdivision plans in

that county also have to undergo a fire department review.

Giant step forward

McKelvey sees the group's accomplishments as a giant step forward. Still, he says, there is no quick fix to the dangers of wildfire.

"There's such an enormous amount of fuel out there," he says. "What we're doing is a drop in the bucket. But in the areas we've treated, we are absolutely better off. In the area of public awareness, we are substantially better off.

"We have seen a paradigm shift in the thought process for people in Lewis & Clark County," McKelvey adds. "People are accepting this mitigation work. They understand it's the stuff you do prior to a fire ever beginning. It's not things you do when the fire is raging over the hill."

Murray, a county commissioner for 10 years, agrees, noting "at best, we are twenty to twenty-five percent of what we hope to achieve.

"We have a lot of people who are moving in from urban areas who want the urban

dream," Murray notes. "They think the more trees you have around your home, the better. Part of the example we are showing people is that it can still look nice and be fire safe and not have trees up against your house and home."

In Jefferson County, Lythgoe is seeing the same domino effect which, in the long term, he says, is "going to save some homes."

Mann says Broadwater County is still in the infancy stage when it comes to wildfire mitigation. Changes are slow to come, she adds, because people still don't realize how and why they are at risk for wildfire.

"Our planners didn't realize there could be a grass fire that could burn subdivisions on the valley floor," she says. "Now they do."

As the Broadwater County representative for the tri-county group, Mann is trying to funnel back information to residents and other local officials to boost the need for education, which she considers fundamental to being proactive and facilitating changes on all levels.

Commissioners from all three counties agree that there is more to success than just doing the work. It takes an organized, visionary effort. It takes partnership and it takes money.

"You have to get the right folks to the table and you have to look for some money," says Lythgoe. "What has worked for us is to get multiple counties involved. We have commissioners, emergency services coordinators, state forestry people, staff from the Bureau of Land Management and the U.S. Forest Service all showing up to this monthly meeting, setting goals, achieving goals and problem solving."

And, Lythgoe adds, it doesn't hurt to have a powerhouse like McKelvey.

"The reason we are so successful is Pat McKelvey's enthusiasm and his ability to put these things together and get things done. He has done a really good job of making the public aware of the hazards of living in the forest." ■

Property with new defensible space

