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Reducing Wildland Fire Risks in the West

BY KEVIN HOPKINS, Editor, Government West

At first, the fire was a mere wisp, no more than a nuisance really, an almost unnoticeable scratch on an otherwise beautiful June day. Few could have guessed that, within hours, it would grow into one of worst tragedies in Arizona's history.

A reporter for the Arizona Republic described this initial sighting of the fire as "a thin veil of white-gray smoke curled on itself in a half-dozen twisted knots and wafting with the late afternoon breeze." But in the time it took firefighter Gary Thompson to contact the Bureau of Indian Affairs office in Whiteriver, U.S. Interior Secretary Gale Norton recalls, brilliant orange flames had punched through the gray smoke.

And there they would remain for days.

Two firefighting crews headed for the Red Dust Rodeo grounds in Cibecue, Arizona, the epicenter of the fire. More crews were called in, but wouldn't arrive for three hours. "In that short time," noted the Arizona Republic correspondent, "the Rodeo fire exploded, gobbling tinder and trees at an astonishing pace. By midnight, the docile plume of knotted gray smoke Thompson spotted would devour 300 acres."

A FIRE GROWS

The wonder now, the paper says, "isn't that the fire grew so quickly, but that it didn't grow even faster." Why? "Humidity was staggeringly low. Temperatures were dangerously high. The air around Cibecue was poised to suck up flames and spew them hundreds of yards into a lush undergrowth that experts say was thicker and drier than almost any time in the past century."

In fact, says Gale Norton, at one point the fire was a six-mile wall of flames, 400 feet high, generating 2,000-degree temperatures. "You know the rest of the story of the Rodeo fire," she goes on. "It merged with the Chediski fire to create a 50-mile wall of flame and eventually burned more than 450,000 acres. Thousands were evacuated and more than 400 structures were destroyed.

"This horrific scene," she explains, "was repeated across the West last year. The fire season was among the worst in the past four decades, burning an area the size of New Jersey and Rhode Island put together. Three states—Oregon, Colorado, and Arizona—registered the worst fires in their history."

Wildfires Consume Millions of Acres Each Year

Total Fires, Acres and Suppression Costs for Federal Agencies 1994 - 2002.

YEAR	FIRES	ACRES	COSTS
2002	88,458	6,937,584	\$1,661,314,000
2001	84,079	3,555,138	\$917,800,000
2000	122,827	8,422,237	\$1,362,367,000
1999	93,702	5,661,976	\$523,468,000
1998	81,043	2,329,709	\$328,526,000
1997	89,517	3,672,616	\$256,000,000
1996	115,025	6,701,390	\$679,167,600
1995	130,019	2,315,730	\$340,050,000
1994	114,049	4,724,014	\$845,262,000

These figures are based on end-of-year reports compiled by all wildland fire agencies after each fire season, and are updated by March of each year. The agencies include: Bureau of Land Management, Bureau of Indian Affairs, National Park Service, US Fish and Wildlife Service, USDA Forest Service and all State Lands.

CALIFORNIA BURNS, TOO

Secretary Norton delivered her remarks on June 19, 2003, at the Western Governors' Association Forest Health Summit in Missoula, Montana. Had she been speaking just a few months later, however, the Arizona fires might have faded from memory, replaced by a new and even greater disaster: the October 2003 Southern California wildfires.

The statistics themselves tell an exceedingly grim story. During that single month, 15 large fires from Simi Valley to San Diego consumed more than 750,000 acres—the largest wildfire acreage losses in California's history. More than 3,600 homes were destroyed, more than 1,100 other structures were decimated, and dozens of people were killed. State officials estimated the wildfires' financial toll at more than \$2 billion, making the fires the costliest in state history.

What was perhaps most frightening about the California fires was that many struck near densely populated urban areas. The Simi Valley fire danced on the outskirts of a number of newer home developments along the 118 freeway, threatening residences from Simi Valley to Valencia. One of the San Diego fires destroyed hundreds of middle-class homes in the city's heavily populated Scripps Ranch area, while nearly consuming the historic tourist town of Julian on the county eastern edge. And the

"What was perhaps most frightening about the California fires was that many struck near densely populated urban areas."

San Bernardino County fires threatened many rapidly growing communities east of Los Angeles.

SEARCHING FOR A CAUSE

An immediate, almost apocalyptic question comes to mind: why has the West been so ravaged by wildfires in recent years? And, even more worrisome, what does the future hold? One answer comes from the Western Governors' Association, which writes in a position paper entitled "Forest and Rangeland Fire" that "a century of active fire suppression, combined with drought conditions in many western states" were the fuel that helped spark the severe wildfire season in 2003.

This much is true. Edward E. Starkey, research manager at the U.S. Geological Survey Forest and Rangeland Ecosystem Science Center in Corvallis, Oregon, recently told FACSNET Online that, "in the Pacific Northwest and in the Sierras, the fire issue [correctly] focused on whether or not fire suppression and human management of the [forest] system have created a more fire-prone environment." In fact, he says, "we haven't harvested trees; we haven't allowed prescribed burning; we haven't allowed wildfires, so we have a lot of deadwood that is fuel for wildfires."

Accurate as this explanation is, it is not universal. Starkey points out that, in Southern California's chaparral and scrub brush forests, the situation is much different that in the fire-suppressed Pacific Northwest. "Since humans have suppressed fires and altered the system in forests like the Sierras or the Cascades, then it must be the case in Southern California" that the same explanation holds. "But," he says, "research shows the opposite. Fires have burned with this kind of vicious intensity [in Southern California] from the beginning of time." Indeed, since the start of record-keeping in 1878, there has been no increase in the average size of wildfires in Southern California.

Then why has there been so much residential destruction in recent fires? Notes Starkey: "The reason the situation is worse today is because we have more houses, people, and resources in harm's way than we did 50 years ago." Indeed, 50 years ago, beautiful, wooded parkways like Avenida Magnifica in Scripps Ranch—much less the homes that lined them—did not even exist. Today, what remains of these residential byways is testament to the dangers of building residential structures in the middle of what were once vast forests of trees.

THE GOVERNORS CONVENE

It was the commingling of such complex and challenging condi-



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tions that brought western states governors, Interior Secretary Norton, and nearly 400 others from across the West and as far away as Australia to Missoula, Montana, in June 2003. The governors and their colleagues were determined to find new, cost-effective ways to quickly restore the health of western forests and to reduce the dangers of wildfires, particularly in urban areas.

It wasn't the first such meeting they had held. In the face of the catastrophic wildfire season of 2000, western states governors and the U.S. Secretaries of Agriculture and Interior con-

Durango, Colorado:A Community Responds

In 2002, the Missionary Ridge fire in Southwestern Colorado, near Durango, burned 73,000 acres and destroyed 56 homes—the largest fire ever in the Durango area. In the words of the National Wildfire Programs Database, the fire "provided a wake-up call to the residents of the five [surrounding] counties that they needed to protect themselves from wildfire."

In response, a consortium of organizations—the USDA Forest Service, the Bureau of Land Management, the Colorado State Forest Service, and several local agencies and community groups—joined forces to educate the public and to provide assistance for recovery and wildfire risk mitigation. Such collaboration with federal and state agencies was essential, the consortium's participants recognized, since 50% of the land in the five-county region is federally or state-owned.

One of the consortium's first steps was to create an informational web site, called the Southwestern Fire Information Clearinghouse (www.southwestcoloradofires.org), that is sponsored by the San Juan Public Lands Center, the Colorado State Forest Service, and the Fort Lewis College Office of Community Services. Articles on the web site provide valuable information to the public on ways in which they can help to prevent wildfires, reduce losses should fires occur, and recover after a fire.

For instance, a "Prevention" section catalogs resources for defensible space and brush disposal. A "Community" section presents wildfire hazard maps and lists of local fire regulations. And a "Pests" section educates homeowners on the treatment of bark beetle infested trees.

The consortium also undertook a number of other education efforts. Among them was the publication of "Fire & Fuels," a webbased e-zine that was also inserted into local newspapers, and that has published such informative features as a discussion of lessons learned from the Missionary Ridge fire. In addition, the consortium designated April each year as "Fire Prevention Month," and has given away more than 800 copies of a video entitled "After the Fire" that highlights the implications of the Missionary Ridge fire for future community fire safety.

For more information on the Durango program and similar efforts, see the National Wildfire Programs Database at www.wildfireprograms.com. —Kevin Hopkins

vened in Salt Lake City in September of that year. They left that meeting agreeing to form federal, state, and local teams to help forests devastated by that year's wildfires to recover and to improve the overall health of western forest system in order to prevent future fires.

Following the Salt Lake City conference, the governors sought Congressional approval of their proposals. Congress subsequently adopted language mirroring the conference's recommendations, and the provisions were signed into law by President Clinton on October 11, 2000. The Western Governors' Association simultaneously worked with federal agencies, tribal and local governments, and other stakeholders to facilitate development of an ambitious 10-Year Comprehensive Strategy for reducing the likelihood and destructiveness of future wildfires.

That strategy and its accompanying implementation plan were based on four key goals:

- Improve fire prevention and suppression;
- o Reduce hazardous fuels:
- o Restore fire-adapted ecosystems; and
- o Promote community assistance.

The 10-Year Comprehensive Strategy, its endorsers declared, "reemphasize[s] a unified national commitment to reduce the risks of wildland fire across the landscape." It also recognizes "the need to cooperate with all affected landowners and within all relevant jurisdictions using a proactive, results-oriented, and community-based approach." And it "establishes responsibility among all parties at all levels for planning, prioritizing, and accomplishing the tasks and related activities needed to achieve results in a timely and cost-effective manner..."

"A century of active fire suppression, combined with drought conditions in many western states, helped spark the severe wildfire season in 2003."

WHAT WENT WRONG?

Fast-forward three years to the devastating 2002 and 2003 wild-fire seasons, and one might be constrained to ask: what went wrong? The answer is: not as much as one might think. With the exception of the perhaps inevitable legal or bureaucratic delays that have slowed progress in clearing dead trees or otherwise taking ameliorative action in some critical areas, federal, state, and local agencies have moved with atypical speed to implement the 2000 recommendations.

In her address to the June Forest Health Summit, Interior Secretary Norton summarized some of this progress. "Interior and Agriculture [Department] dollars available in 2003 to fight fires," she noted, "have increased 55% since 2000... This has allowed

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us to continue to do an outstanding job of firefighting, controlling more than 99% of the wildfires on initial attack."

In addition, she went on, "some 62% of the dollars spent are going into the Wildland Urban Interface areas"—that is, forest areas close to urban residences. The amount of land being treated or cleared has also increased dramatically. "We are already on track to treat more than a million acres in fiscal year 2004," an increase of more than 35% above 2001 levels, she said.

This activity should be accelerated even more by the Healthy

"Interior and Agriculture
Department dollars available in
2003 to fight fires have increased
55% since 2000."

Forest Restoration Act, signed into law by President Bush on December 3, 2003. The law is designed to cut red tape and expedite judicial reviews for forest-thinning projects on 20 million acres of land currently jeopardized by insect infestation or covered with dead and dying timber at risk of fire. And the activity will be continue to be supported by Interior's and Agriculture's jointly administered National Fire Plan, which is responsible each year for treating or clearing hundreds of thousands of acres in western states.

MUCH WORK REMAINS

Still, much work remains to be done, as evidenced by the testimony of four western states governors at the June Forest Health Summit (see both Gov. Janet Napolitano's article on the Arizona experience and the excerpts from the governors' statements in this issue). Even Interior Secretary Norton concedes that, despite the treatment of more than one million acres of western forests in fiscal 2004, federal forests contain an estimated 190 million acres that are in a dangerously overgrown condition. Nor were legal and bureaucratic delays, even if expected, any longer tolerable, especially with so many families' homes and lives at stake.

The June Forest Health Summit addressed these concerns. The participants concluded that, while the collaborative processes established in the 10-Year Comprehensive Strategy were valid and appropriate, many people living in the wildland-urban interface remained at unacceptably high risk. "Therefore," the participants recommended, "the Senate should review existing law and recent changes to administrative processes regarding high-risk communities to determine if changes in the law are necessary to expedite the protection of these areas."

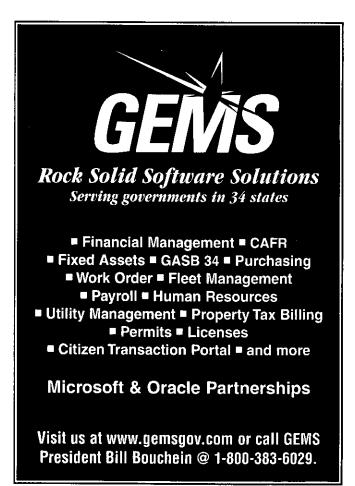
Such recommendations would make significant headway in minimizing the chances of fires like those that encroached on numerous Southern California communities in October. On a more general level, however, the Summit participants identified lengthy public debates and excessive environmental lawsuits as key barriers to the clearing or treating of high-risk areas throughout the West.

Secretary Norton, for example, recalled the site of the July 2002 Squires Peak Fire in Oregon. On one side of a dirt road, where small trees and underbrush had been removed and the forest thinned before the fire rolled through, she said, "the forest was green and alive. On the other side of the road, where a similar thinning project had been stalled by lawsuits, the landscape was charred and trees looked like matchsticks." Similarly, Arizona Gov. Janet Napolitano pointed to 70,000 acres of fuel-reduction projects in her state that had been delayed, not by lawsuits, but by "bureaucratic inertia."

REMOVING THE BARRIERS

The governors vowed to press the U.S. Congress and federal agencies to deal with barriers like these in five principal ways:

- Including states, localities, and other affected parties earlier in the planning process.
- Ensuring that deadlines for judicial decisions did not preclude the opportunity for meaningful stakeholder participation.
- Allowing courts to employ sound science in considering the long-term effects of critical forest projects "versus the effects continued on page18



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Western Governors on Wildfire Prevention Collaboration: The Key

MONTANA: GOV. JUDY MARTZ, CHAIR, WESTERN GOVERNORS ASSOCIATION

For many years, Western Governors have been at the forefront in advocating and developing policies that would reduce the risks of wildland fire to both our communities and the environment. But it was the 2000 fire season—one of the worst in 50 years—that provided the momentum for all the parties to come together to address this issue. In that year alone, 8.4 million acres were burned. The cost? More than \$2 billion in federal dollars just to bring the fires under control.

At the behest of the Western Governors, Congress called on the Administration to partner with us to develop a strategy to improve wildfire management and to restore the health of our forests and rangelands. We now have a strategy. And we have an implementation plan. These documents were created and agreed to by a diverse set of interests—by people and entities not known for being on the same side of the issue.

But these documents are just blueprints. It is

now up to communities across the West to help craft locally driven measures to get the job done. Progress can be made—but only if we work together to recommend ways to get community-based projects underway sooner rather than later. Our goals are to:

- Improve the health of our forests and reduce the risks of wildland fires.
- Stabilize those communities that depend on the forests for their economic well-being.
- Evaluate those governmental policies that may need revision to best meet those goals.
- Evaluate how science and technology might be better used to address forest health issues.
- And, finally, improve the network for communication and collaboration among governments and forest health constituencies.

This is a tall order, but a challenge I know that we can master.

ARIZONA: GOV. JANET NAPOLITANO

When federal resources are needed—whether for fire suppression, fire-fighting, or disaster recovery— we need to insist that the resources be deployed to the states more efficiently than they are. Right now, more than 70,000 acres of fuel-reduction projects in Arizona have been through the review process and are ready to go. Yet some move at an alarmingly slow rate.

Appeals aren't stopping these projects from moving forward. Bureaucratic inertia is.

At the Fort Valley Ecosystem Restoration Project, for instance, a 4,690-acre fuel-reduction project was approved more than 2-1/2 years ago, yet to date fewer than 1,000 acres have been thinned and far less burned. Kachina Village, outside Flagstaff, is located adjacent to a very thick forest in desperate need of excess fuel removal. Yet for two months, nothing has been done. The project will move forward—after the wildland fire season. This is unacceptable.

The longer Congress holds out, the more Arizonans' lives are in danger. The communities where projects sit uncompleted represent nearly 100,000

citizens at risk. These towns are sitting ducks in the middle of a dry, over-fueled forest. I wonder how many more Kachina Villages there are in states throughout the West.

When exploring what tools work best to restore long-term health to our forests, we must look at all tools through the lens of good science. It is the one truly objective measure upon which everyone can agree. Besides overruling partisan interests, using scientific knowledge can help us to better understand how to utilize such forest-management tools as prescribed burns and selective removal of small-diameter trees.

Done properly, we can improve an ecosystem by removing excess fuels and improve an economy by finding commercially viable uses for what has been removed. This should be our goal, and science guided by the management principle of long-term health of our forests must be our unifying guide. Our collaboration is imperative to the health—and perhaps even the prolonged existence—of Western forests.

to Forest Health

IDAHO: GOV. DIRK KEMPTHORNE

We have seen how the forest health policies of the past have worked. Quite simply: they haven't. While we've battled gridlock and endless lawsuits in the courtrooms, our forests have gone up in flames and the overall health of the ecosystem has declined. As a result, large portions of our forests today have reached a critical state and are overgrown, unnaturally dense, diseased, and dying. As forests become more dense, competition among trees increases for essential moisture and nutrients, thus stressing the trees and making them more vulnerable to insects.

Let me give you an example. Elk City, Idaho, sits among some of the most rugged and beautiful scenery in the West. Out of 100,000 acres surrounding Elk City, 80% of the trees are infested with pine beetles. There are more than a million dead or dying trees within five miles of Main Street. As a result of problems like this, Elk City and other cities like it throughout the West are at extreme risk.

Over the last three years, on the federal side alone, more than \$6.7 billion has been allocated by Congress to fight wildfires. But that doesn't account for the cost of thousands of structures

that burned, the million of lives that were affected, and the countless plants and animals that were destroyed.

This isn't fiction. This is a modern-day tragedy.

The impacts of some catastrophic forest fires can last for generations. The blackened and scorched earth can remain scarred for decades. But perhaps the greatest tragedy is when-after the fact, after the fires are out, after the damage is assessed, and after the call to action has been issued-too many times we let sound science and practical land management give ground to partisan politics and finger-pointing.

There are those who paint forest health issues in terms of economy versus the environment, pro-logging versus pro-forest. Unfortunately, too much of our time and money is spent in vain trying to quell the rhetoric and resolve conflicts during the appeals process or in the courtroom.

It is time to change the tone from a culture of conflict to one of cooperation. We must shift the focus from courtroom to the forests.

OREGON: GOV. TED KULONGOSKI

There are no Republican forests or Democrat forests. There are only American forests-forests that need our protection, stewardship, and collective thinking. There are, of course, many points of view on forest issues. With this many interests, there are bound to be differences over what to do. Yet although there is disagreement about how to restore our forests to good health, there is little disagreement that many of our forests are in trouble. That is why we must do more than talk past each other. We need to talk to each other. To listen. To collaborate. And, yes, to compromise.

In Oregon, for instance, there are small cities and towns whose economies are based almost entirely on cutting, processing, and selling timber. We can say that this doesn't make sense anymore, and that we have to adopt sustainable develop-

ment. But even as we focus on sustainability, we cannot ignore the fact that rural communities are hurting. They depend on forests. And forests that are tinderboxes will only make the tough economic times these communities are facing even worse.

Of course, Western states cannot improve the health of the forests alone. The federal government must be involved. After all, much of our forestland is federally owned. And, notwithstanding my bias toward the West, I truly believe that we must address the health of forests across the United States. From the New York Adirondacks to the Blue Ridge Mountains of Kentucky to the Georgia Pines, there are great forests in many places, and they all deserve protection.



Protecting Against Wildfires:

The Arizona Experience by Janet Napolitano, Governor of Arizona

"Working together, we can

protect all Western forests

for future generations."

Janet Napolitano is Governor of Arizona and the forest health lead for the Western Governors Association (WGA). This article is excerpted from remarks delivered to the WGA's Forest Health Summit, June 18-19, 2003. Like other Western states, Arizona faces a wildfire season each year that has the potential to be even more catastrophic than the previous year's. Continued drought, a century of forest mismanagement, and a bark beetle infestation have contributed to the current situation.

Consider what Arizona endured in 2002:

- More than 1,800 fires burned 600,000 acres of land, accounting for 20% of all land burned in the United States that year.
- The Rodeo-Chediski fire alone consumed more than 460,000 acres and 426 man-made structures. It forced the evacuation of more than 30,000
 - residents, and caused the Red Cross to set up one of the largest evacuation centers in its national history.
- The Indian fire, while burning fewer than 1,400 acres, came perilously close to the cities of Prescott and Prescott Valley.

Conditions are not improving. One of the worst droughts in 1,400 years persists, bringing with it the bark beetle, which has now killed more than 800,000 acres of Arizona forests—100,000 more acres than all Arizona land burned in the last three years combined. Hot summers with hundreds of thousands of lightning strikes aggravate this situation. To make things worse, thousands of desert dwellers each year seek cool respite in the mountains, bringing cigarettes, campfires, fireworks, and often poor judgment.

Our concern should be obvious. Wildfires—especially megafires that threaten entire ecosystems and communities—are large problems of the American West, and so we must craft a Western solution.

TURNING TO ADVISORY COUNCILS

It is time to do what should have been done a century ago, time to let long-term, balanced planning be our guide for next steps. In Arizona, federal partnerships will be the key to our ultimate success, but steps already have been taken at the state level. In March, I convened Arizona's first Governor's Conference on Forest Health

and Safety. At the risk of inviting a street fight, we coaxed all concerned parties—loggers, environmentalists, representatives of the affected cities and towns, tribal officials, and forestry scientists—to come together in search of common ground.

It worked. More than 300 participants came together, many of whom were from diametrically opposed perspectives. They got along, and in one day drew up 30 consensus recommendation. Perhaps the most important outcome was the recommendation that I create permanent advisory councils on forest health. I have

since created those councils, and they include membership that maintains a balance of perspectives on this volatile topic.

In July, one advisory council gave me a recommendation for fuel-reduction projects. One practical result of fuel reduction will be the removal of large quantities of wood. To

minimize waste and maximize economic opportunity, the advisory councils are also charged with recommending a balanced approach to finding economically viable uses for this excess fuel. Moving that wood and processing it to the market means new jobs and opportunities, and we should not let old ideological absolutes obscure that fact.

Another element of forest health that will be addressed by the councils is the issue of personal responsibility, as this plays a big part not only in the ignition of fires, but in the damage they cause. By clearing trees, brush, and other fuel from a safe perimeter around buildings, many homes will be spared from wildland fires in the future.

IMPROVING EMERGENCY RESPONSE

Though we are working hard to reduce the risk of megafires and the human toll they take, we understand that a certain amount of fire is not only healthy for forests, it is inevitable. To ensure that risk to communities is minimized, we are taking aggressive steps to be fully prepared to fight wildfires when they erupt.

One shocking lesson that our emergency responders learned in fighting last year's megafires was that they simply could not talk to one another. With no radio interoperability, firefighters and other emergency workers from various jurisdictions found it nearly impossible to communicate properly with each other, hampering their





"One shocking lesson that our emergency responders learned was that they simply could not talk to one another."

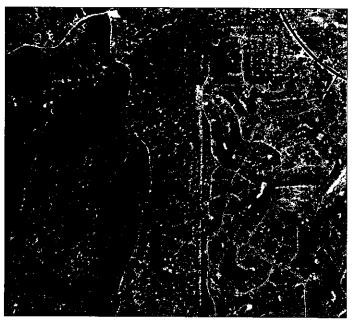
ability to fight the blazes. What's worse, responders in remote areas found that they were not able to communicate with anyone at all.

This placed our emergency workers in danger, and we needed to act. And so, in April, we enacted a large-scale wildfire drill in northern Arizona to test our emergency response operation and coordination, including a new interoperability system. Inevitable glitches were discovered during the exercise, saving Arizona's first responders from discovering them during an actual emergency.

We also have successfully negotiated a statewide mutual aid agreement to quicken the process of redeploying resources where they are needed the most. This will save crucial time when fire jurisdictions find themselves overwhelmed by a blaze and in need of immediate assistance from other jurisdictions. Of course, when these firefighters arrive, they will need immediate access to firefighting equipment. To accomplish this, I released \$1 million to the Arizona State Land Department for pre-positioning of firesuppression equipment.

PREVENTING WILDLAND FIRES

Wildfire is unique among natural disasters in that, unlike floods, hurricanes, earthquakes, or tornadoes, its human toll can be pre-



Satellite image shows how close the Rodeo/Chediski Fire came to Show Low, AZ. Visible is a Forest Service road that acted as a firebreak.

dicted and prevented.

To help in this regard, in May, I issued an emergency declaration based on fire hazards created by the bark beetle infestation. Bark beetles have created areas of dead forest that, when added up, cover a land mass equal to the city limits of New York City, Los Angeles, Chicago, and Denver combined. I have asked the Department of Agriculture and the Federal Emergency Management Administration (FEMA) to provide the necessary funds to assist in dealing with this problem and so prevent a disaster before it happens.

In a related effort, economists at Northern Arizona University recently compared the costs of restoring forests to taking no action to reduce fuels in our forests. The study concluded that, if we invested \$505 per acre now to restore and reduce hazardous fuels in areas that have the highest risk for unnatural fire, we would avoid suppression and rehabilitation costs that could greatly exceed that amount in the future.

The problem becomes worse each year that no action is taken to restore high-risk areas. In the nine Western states with significant acres of Ponderosa pine and dry mixed-conifer forests, for instance, there are more than 12 million acres at high risk for unnatural fire. Based on this analysis, we can invest \$6 billion today to restore these areas, or we can watch an equivalent amount of money-in addition to our forests-go up in smoke.

WORKING TOGETHER

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Based on our experience in Arizona, I firmly believe that we can make the health of our forests the driving force behind forest management policy. And we can do that while promoting economic opportunities for our communities. Projects to reduce wildfire hazards and restore forest health should utilize the resources of local forest communities. We must work together to ensure that the people with a vested interest participate in the process and the solution.

As we engage in the debate on new national forest policy, we must also work with Congress and urge them to ensure that much-needed resources are allocated to help Western states during this difficult and potentially very dangerous time. Working together, we can protect all Western forests for future generations.

Janet Napolitano is Governor of Arizona and a lead on forest health issues for the Western Governors Association. She can be reached at 602.542.4331. Full contact information is available at: http://www.governor.state.az.us/global/contact.htm.

California Recovers: Lessons Learned An Interview with Andrea Tuttle

Director, California Department of Forestry & Fire Protection

The California Department of Forestry & Fire Protection (CDF) responds to more than 6,300 wildland fires each year. The main fire season passed, CDF Director Andrea Tuttle took time from this busy schedule on December 9, 2003, to speak with Government West editor Kevin Hopkins.

GW. This past wildfire season was particularly devastating for Southern California. Do you view the massive fires of 2003 as a harbinger of future fire seasons?

DIRECTOR TUTTLE. We will certainly have more major wildfires in California. More than 90% of the wildland fires in 2003 burned in chaparral and coastal sage where fire is a natural part of the cycle. High-intensity fires occur every 25 to 50 years in chaparral, but chapparal re-grows quickly and is ready to burn almost as intensely again after only 7 to 8 years.

Thousands of homes and whole communities have been built on top of this natural system and are now at risk. A similar situation exists in our overstocked timberlands. Because of our population and size, California has more Wildland-Urban Interface (WUI) area than any other state. Our challenge therefore is to convince people that we simply must live and build in a more fire-safe manner, and we must work to reduce the unnatural fuel levels in our wildlands.

GW. The 2003 wildfires resulted in huge governmental costs that will surely impose a significant burden on already financially strapped state and local governments. How will California governments cope with these added costs, both now and in the future?



"We need to thank the firefighters who came to southern California's assistance for their incredible work."

DIRECTOR TUTTLE. We anticipate that a good proportion of California's costs will be reimbursed by the federal government. We are grateful to Homeland Security Secretary Tom Ridge, FEMA Director

Mike Brown, Congressman Lewis, Senator Feinstein, and our congressional delegation who are working to bring federal funds into our state. The federal assistance will help to reimburse fire suppres-

sion costs, provide assistance to families and businesses that suffered losses, and rehabilitate the burned areas to reduce winter flood and erosion dangers.

The most important point is that we will not allow the budget crunch to undermine our state's firefighting capabilities. Our goal for CDF remains to keep 95% of all wildland fires to less than 10

acres through an aggressive initial attack. We have learned that it is much more cost-effective to catch fires when they are small rather than to pay the inevitable and enormous costs when fires burn out of control.

GW. Do you think that California was as prepared for the 2003 fire season as it needed to be, and why or why not?



Many agencies had actually done a lot of preparation, especially in the Southern California mountains. In July 2001, we recognized the incredible fire threat posed by millions of dead trees

killed by the bark beetle infestation. The US Forest Service, CDF, the California Conservation Corps, and many other agencies went to work removing dead trees. We cleared evacuation routes, developed safety zones, and held extensive community meetings with the public safety agencies and Fire Safe Councils. We also conducted tabletop evacuation drills with local fire districts, law enforcement agencies, public works agencies, and others, and provided a special "red book" briefing to every CDF firefighter coming into southern California to prepare them for the intense burning

"We simply must live and build in a more fire-safe manner, and we must work to reduce the unnatural fuel levels in our wildlands."

conditions that they might face. Those plans worked. As just one example, we were able to evacuate more than 40,000 people from the Lake Arrowhead area in a matter of hours without injury—all because we had planned ahead.

Through an emergency proclamation, Governor Davis had also boosted the CDF's budget earlier in the year to increase the number and size of firefighting crews in southern California, provide a helicopter for San Diego County, allow the pre-positioning of local fire engines, and streamline the permit process to enable us to remove dead trees while still providing key environmental protections. The US Forest Service also increased its firefighting resources, bringing in crews and staging air tankers.

Many communities and individual homes survived the fires because of their own planning as well. Local news featured several examples of subdivisions that had created greenbelts between their homes and the wildlands and that were constructed with fire-safe materials. Those communities survived—proving that planning and preparation can make a difference.

GW. What were the greatest successes in fighting the Southern California wildfires, and what concerned you the most?

DIRECTOR TUTLE. We cannot be thankful enough the courage and dedication of the firefighters on the ground and in the air. At one point, more than 15,000 people were assigned to these fires. Incredible firefighting took place in keeping fire out of the bug-kill area in San Bernardino, and in protecting hundreds

of thousands of structures and lives throughout the five counties. The conditions were terribly dangerous, with winds carrying fire at extraordinary speeds. In one 10-hour period, for instance, 80,000 acres burned—that's two acres per second.

Always of most concern is the safety of firefighters on the line. The very worst call you can get is the one reporting a fatality or serious injury. Sadly, we lost one firefighter protecting homes in the Julian area, Engineer Steve Rucker from the Novato Fire Protection District.

GW. Some of the fires burned very close to heavily populated areas. How can we prevent these near-catastrophes in the future?

DIRECTOR TUTTLE. We've said it many times. Living in California means living with fire. California law requires that homeowners do several things to create a "defensible space" around their structures and, as I mentioned, some counties also require greenbelt defense zones around whole subdivisions. We can also require that homes be built with more fire-resistant materials. For example, the California legislature this year passed Assembly Bill 1216, which empowers the State Fire Marshal to increase the building standards in very high fire hazard zones.

GW. What are the most important steps that California and other Western states need to take in order to be prepared for the 2004 fire season?

DIRECTOR TUTTLE. Those who live in the wildlands and interface areas should becontinued on page 16



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come involved with their local Fire Safe Council. More than 100 such councils have been formed around California, and several other states are adopting this model. Councils are comprised of local stakeholders who work together to design and implement fuel-reduction projects that have strong constituencies and support (for further details, see www.fire-safecouncil.org).

Overall, the government's main role is to encourage, provide technical help, and assist in planning and funding hazard-reduction and fuels-modification projects. We know where threats exist, and in many cases we know how to remove them. We also have numerous environmentally appropriate forest-thinning projects and controlled burns ready to go, pending the resources to implement them.

GW. How can states and localities in the West better work together to prevent and fight forest wildfires?

DIRECTOR TUTTLE. 1 think it is very important for state and local officials to become better informed about the work of the Fire Service. California has learned how to fight fire cooperatively through 100 years of firefighting experience with our local, state, and federal partners. The Incident Command System was invented after the California fire siege of the 1970s, and it works. We have a full range of local, state, and federal cooperative agreements in place that are reviewed before each fire season. Every rule in the rule book is there because of a prior injury, near-miss, or fatality. The single most demoralizing factor for the firefighters and fire managers during this most recent siege was the incessant second-guessing and criticism from elected officials and the media who obviously didn't understand the process they were criticizing. It was demoralizing to the firefighters and distracting to management who had to divert their attention from their primary fire mission to respond to inaccurate claims.

Many activities take place during a fire siege in which we urgently need the help

"Many threatened communities survived—proving that planning and preparation can make a difference."

of elected officials—delivering public service announcements, finding community centers, helping evacuees, assisting with claims processing, and so forth. Questioning the decision-making of fire managers can wait until after the flames are out. I am committed to bringing more officials inside the process of preventing and fighting wildland fires, and making their role a more positive one.

GW. What help do western states governments need from Congress and federal agencies in order to effectively prevent and fight wildfires?

DIRECTOR TUTTLE. Increased funding is certainly needed. On the suppression side, we continue to enhance our aviation resources, and are working to increase the effectiveness of each engine crew by adding an additional firefighter. On the prevention side, the size of the fuel-reduction needs is staggering. Building and maintaining firebreaks costs money, as do controlled burns, public education programs, and code enforcement. Federal support on both the prevention and the suppression side will be well-invested.

We also need to decide at the federal level whether we want additional military capability to respond to large, complex fires like California's. The military has its own mission, and the pilots and Marines who may be fire-trained at the beginning of a fire season may not be around when the fires start. We need a clear debate at the federal level as to which military resources will be ready and available, and which ones will not. It is totally inappropriate to blame local

fire managers for not utilizing the military when in fact the available units are not equipped, trained, safe, or authorized to enter the wildfire arena.

GW. How will the recently approved Healthy Forest Initiative impact California?

DIRECTOR TUTTLE. Like much of the West, California has a lot of work to do in our conifer forests to reduce the unnatural fuel loads. Because of decades of successful fire suppression, our forests are no longer in their natural condition. I therefore look forward to working with relevant federal agencies and private industry to design appropriate projects to restore our forests to more natural conditions. Because we have such a large expanse of wildland-urban interface throughout California, I know that much of the work will be focused there. We are also interested the new Act's assistance for biomass production, watershed management, and non-industrial forest management programs, since losing working timberlands to fragmentation and development imposes a huge cost on our heritage, environment, and natural resource base.

In summary, we again need to thank the firefighters who came to southern California's assistance for their incredible work—their courage, training, and professionalism led to many extraordinary saves. The costs and losses were great, but the spirit of recovery will heal us and take us all forward.

For more information on California's firefighting efforts www.fire.ca.gov or contact Karen Terrill, public information officer, at karen.terrill@fire.ca.gov.

