

## **Background**

The wildfire threat facing communities in the western United States is undisputed. According to the United States General Accounting Office (GAO) fire suppression policies on public lands coupled with population growth in wildland areas created increased risk to communities from wildfire disasters. Over the past decade, scores of lives were lost, tens of thousands of square miles of land was devastated, and thousands of homes and other structures were destroyed from damage inflicted by wildfire. Increases in population in the inland West coupled with the appeal of living in closer proximity to public lands create situations that expose more people, property and infrastructure to the risk of wildfire than at any time in recent history. The GAO estimates 60-100 million acres of public land and hundreds, if not thousands, of communities in the public land interface are at risk.

While many factors contributing to the intensity of wildfires cannot be controlled—wind, weather, humidity, temperature, and drought conditions—there are many actions that can be taken in the long and short term to respond to the threat of wildland fire hazards. The two dominant national-level policies to address the risks posed by wildfires, the National Fire Plan and the Western Governor's Association (WGA) 10-Year Comprehensive Strategy Implementation Plan, identify four common goals for wildfire management to address long term threats posed by wildfire: 1) improving fire prevention and suppression, 2) rehabilitating and restoring fire-adapted ecosystems, 3) reducing hazardous fuels, 4) promoting community assistance. With these goals in mind, communities are urged to thin, conduct controlled burns, restore forests, suppress fire, create defensible space around homes and communities, undertake public education about wildfire and create markets for skilled work forces capable of removing and processing small diameter timber and forest restoration byproducts to respond to the threat of wildfire. But little is known about what is being accomplished on the ground or what combinations of responses are used at the community level.

Great uncertainty surrounds the scope and success of community responses and why some communities manage to foster constructive responses to wildfire risks while others fail to do so. In the past decade a natural experiment has occurred in the inland portion of the western United States as communities have taken different approaches to responding to the threat of wildfire. This research investigates the scope of actions taken to adapt to wildfire risks in New Mexico. The goal is to supply baseline data for what communities are doing on the ground while also providing an overview of statewide action.

## **Project Methods**

The work in this study took place in two phases—1) a state-level analysis of wildfire risk to communities and their responses; 2) community-level case studies of responsive practices. New Mexico's "Twenty Most Vulnerable Areas" served as a state-level sample frame. National Fire Plan grants awarded to each area for 2001 and 2002 were compiled to determine relative levels of responsiveness. Since many of New Mexico's Twenty Most Vulnerable Areas are a group of communities, case study selection focused on single community areas. Silver City, Ruidoso and Red River were chosen based on their high level of responsiveness while Santa Fe Watershed was chosen for its relative lack of response to its wildfire threat. Wildland urban interface type

and recommendations from agencies within New Mexico were also considered. The research entailed site visits to each community, in-person interviews, document and photographic analysis, participant observation and on-site tours. The case studies were analyzed according to the four goals identified by the Western Governor's Association 10-Year Comprehensive Strategy Implementation Plan.

Site visits to case study communities took place from June 2002 to January 2003; Silver City, June 22-26, 2002 & September 26-27, Ruidoso, September 23-26, 2002, Santa Fe Watershed, January 5-11, 2003 and Red River, January 27-30, 2003.

## **Project Findings**

### *Improve Fire Prevention and Suppression*

Silver City, Ruidoso and Red River Fire Departments have required 130-190, Basic Wildland Training for several years. Santa Fe Fire Department is in the process of training their firefighters. Basic Wildland Training means that firefighters, mainly trained only to fight structural fire, are cross-trained to deal with fires in the wildland urban interface. All case study communities have effectively integrated their fire response to include municipal, county, state and federal resources and personnel. Emergency planning and the integration of wildfire response into emergency response have been notable in Ruidoso and Silver City.

Each community faces a variety of challenges in educating the local population about the wildfire threat. Ruidoso and Red River have a high number of seasonal residents who do not understand the threat posed by an overly dense forest. These seasonal residents want to see thick, lush forests and have a difficult time cutting even the smallest tree. The challenge for Ruidoso and Red River is to change prevailing perceptions of what constitutes a risk and create effective outreach strategies for part-time residents.

Santa Fe has never experienced a catastrophic wildland interface fire. The prevailing lack of concern about the potential for catastrophic wildfire in the Santa Fe Watershed accounts for the prevailing current apathy on this issue and for difficulty in holding the USFS accountable for addressing the current threat.

Silver City increasingly is a retirement destination where people seek to "get away from it all". This translates into independent minded residents that resist regulation of any sort and make effective communication difficult.

Each case study community has worked with the USFS and participated in at least one FIREWISE workshop with varying results. One-on-one homeowner assessments have been a success in Ruidoso, Silver City and Red River. Ruidoso, with a full-time Urban Forester, has been highly successful in promoting awareness about the wildfire threat.

### *Reduce Hazardous Fuels*

Collaboration is one of the core principles in the Western Governor's Association goals. Ruidoso, Red River and Silver City utilize collaborative processes to integrate the complex mix of interests, actions and resources to address their respective wildfire threats. Each community

discusses or prioritizes action through their stakeholder groups to make progress in reducing hazardous fuels, thereby diminishing the threat of a wildfire.

In Santa Fe, the Santa Fe Municipal Watershed Project started out with an unprecedented collaborative effort during the plan's creation. However, the group disbanded after the plan was completed. Implementation of the plan, including the reduction of hazardous fuels in the watershed has been significantly delayed, in part due to lack of accountability and coordination on the behalf of the USFS and the community at large. Consequently, over 40% of the city's water supply remains at high risk from catastrophic wildfire.

The National Fire Plan Community Assistance grants allow New Mexico's most at-risk communities to apply for financial assistance to address their wildfire threat. Ruidoso, Red River and Silver City aggressively seek monies under these programs. There has been limited use of these Community Assistance grants in Santa Fe.

Each of the four case study communities is located near a National Forest where the wildland urban interface risk is the greatest. In each community the USFS plans projects to compliment local efforts to address the wildfire threat. In Ruidoso, Silver City and Red River, the USFS has made solid progress in implementing their plans. Progress in implementing work in Santa Fe has been less successful.

#### *Restore Fire-adapted Ecosystems*

Silver City, Ruidoso and Santa Fe are located in fire adapted ecosystems dependent on a recurring low intensity fire regime for forest health. Silver City's 1,400 acre Mill Site Project is an impressive undertaking geared to not only restore forest health but to monitor and research the effects of the project. The Santa Fe Municipal Watershed Project plan is remarkable in its goals to restore the ecosystem to a low intensity fire regime, but has experienced great delays in its implementation to date.

Both Silver City and Santa Fe use thinning prescriptions that favor a mosaic pattern for tree selection with site dependent determination of which trees will remain that takes into account size, location, species mix and health.

Ruidoso is making continual progress on their fuels reduction goals but little consideration has yet been given to restoring a fire regime to the forest.

#### *Promote Community Assistance*

Utilization of small diameter timber (SDT) is a challenge for all four communities. Although there are several creative efforts underway, the SDT industry cannot support itself at this time. Until a viable living can be made from SDT, the industry will continue to be a weak link in a comprehensive response to the wildfire threat. According to Ernie Lopez, Cimarron District Forester, the challenge is finding enough value in the stem of wood to cover transportation costs to its destination. SDT value remains low and it takes a government subsidy to maintain the industry. Local utilizers make extensive use of National Fire Plan Community Assistance grants that keep the industry running.

For Sherry Barrow Strategies (SBS) in Ruidoso, transportation of SDT from fuels reduction projects has proven cost prohibitive in many cases. The 30-40 mile round trip from the National Forest to her factory makes transportation of SDT prohibitive and costly for most contractors. And contracts often do not include enough money or specific provisions to cover transportation costs to utilizers. In Silver City the cost to transport SDT from the Mill Site Project is subsidized by a Collaborative Forest Restoration Program grant. When that grant runs out, it is unclear how the SDT will be transported to sites for processing. Red River has yet to determine how profitable transporting the woodchip material to a biomass fueled facility in southern Colorado will be. Santa Fe has opted not to utilize the wood from its project and will burn or chip all the slash and timber.

In all four communities local capacity to accomplish hazardous fuels reduction work is lacking. A significant portion of large fuels reduction projects are contracted to out-of-state businesses. In some cases, local companies did not have the workforce or the equipment to take on a large project. In other cases, local companies did not understand the contract process and failed to make a bid. An additional problem is the inconsistent work opportunities. A thriving local industry can not be built from seasonal and irregular work. Until communities are able to offer constant work opportunities in fuels reduction, local capacity for fuels reduction projects will remain inadequate.

An additional way New Mexico and the USFS are incentivizing communities is through National Fire Plan Community Assistance grants. New Mexico and the USFS disbursed over \$18,000,000 in FY2001 and FY2002 through these grants. One program, the 20 Communities Cost-share Program, has been successful in assisting private landowners to reduce hazardous fuels on their property. Over \$4,000,000 has been dedicated to various communities in New Mexico in FY 2001 and FY 2002. Initially, many people were unsure if homeowners would elect to participate in the program. But, Silver City, Ruidoso and Red River saw a "domino effect" the first year. After one homeowner created defensible space, neighbors liked the look and sign up for the grant. This program has not been used effectively in Santa Fe. View graph of NFP grant dollars per resident