

Snapshots 2003

May 2

New Mexico

Creating Defensible Space at Wild Horse Subdivision

The Wild Horse Subdivision in Catron County, New Mexico lies on the southern edge of the Albuquerque field office boundary 140 miles southwest of Albuquerque, New Mexico. Eighty percent of the county is public land and is locally marketed as one of America's remaining frontiers—an area with few people surrounded by wildlife and the great outdoors.

As more people try to acquire their piece of this American “frontier,” more homes are being built in the wildland urban interface. This new “land rush” has compelled BLM to aggressively work to inform the public about the management needs of private lands adjoining or surrounded by federal lands, a key component to the success of the National Fire Plan. Improved land management practices within these urban interface areas will lessen the risk of catastrophic fires and increase the safety of the firefighting personnel that must deal with the fires within these areas.

BLM-Albuquerque fire personnel created a working relationship with the Wild Horse Subdivision community and volunteer fire department. While introducing the topic of defensible space at a community meeting in July



Robert Bastik, BLM engine foreman from Albuquerque gives an overview of the project to Wild Horse subdivision residents.



A member of the field office fire crew uses a chainsaw to thin fuels.

2002, it became apparent there was an opportunity to provide the residents more information about managing the fuels around their homes and creating defensible space.

To create an outdoor teaching laboratory, Bureau personnel and the Wild Horse fire chief decided to select a house that could be treated to provide a community model of defensible space. Criteria for the demonstration home included one with excessive fuel loadings, owned by an older couple that could not perform the work themselves, be readily accessible to others living within and those moving into the subdivision to use as a showcase of defensible space, and have characteristics that would facilitate the process of creating both a defensible space and an aesthetically pleasing view shed.

After careful consideration, Frank and Wilma Pisut's home was chosen. The house was surrounded by typical southwestern vegetation types at about 7,800 feet elevation. The home sits among an even aged stand of clumped ponderosa with encroachment from both piñon and juniper. It also has many small clusters of scrub oak scattered throughout the property usually coinciding with the clumps of piñon and juniper, some of these fuel clusters just several feet from the house.



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Residents of the subdivision arrive on site with members of the fire crew.

Coordinating with the fire chief of the subdivision, it was decided to have the project work coincide with community monthly meetings. This opportunity gave Bureau personnel and the local fire chief to show local residents the process of creating defensible space as well as encouraging community involvement with the actual thinning work. It achieved the main objective of educating the landowners within the subdivision on how to create a defensible space around a residence in a fire adapted ecosystem.

The objectives for the local meetings were to educate homeowners about defensible space, show the importance of thinning overgrown stands through the ecological history of the area, explain ladder fuels, teach safe slash burning techniques, and community cooperation to create defensible space.

Agency personnel worked side by side with the landowner to identify specific trees for removal for tree health and forest restoration practices. Coordination with the Wild Horse fire chief on enhancing the overall defensible space creation experience for the benefit of the community was done. This was achieved by setting up an

educational experience for the community at the local fire station on the same day the project began.

After the educational session and a good hearty lunch provided by the residents, the landowners proceeded to the Pisut residence where the tree marking process was explained. Once the presentation was completed, thinning and the creation of the defensible space began. The landowner was on site to ensure that the thinning did not impact trees or view sheds he deemed important.

All slash was removed using pick-up trucks and a trailer and all the firewood was stacked on the property in a favorable spot, away from the northeast side of the house.

The day ended in a successful educational experience for all, a good lunch for the workers, and satisfaction that the residents know that defensible space is not rocket science but an achievable objective.

New Mexico Youth Challenge a Dual Win

On Saturday, October 19, 2002, the New Mexico National Guard's Youth Challenge Program assisted the BLM Roswell Field Office in a wildland urban interface project near Ruidoso, New Mexico. Sixty people, ages 16 to 18, were bussed to a thinning site on BLM's Fort Stanton Area of Critical Environmental Concern. What they found was approximately 35 acres of downed pinon-juniper slash needing to be piled prior to burning.

The slash had been created during the summer by a fuels crew as part of a wildland urban interface project on the boundary of BLM land with the Sonterra subdivision. When the Youth Challenge Program Coordinator approached BLM Fire Management Officer, Jim Desmond about doing a conservation project, he immediately saw an opportunity to utilize these young people on the project.



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Squad members listen during an orientation session.

After a short project orientation and safety presentation by ten firefighters, the cadets broke down into squads with a BLM firefighter as squad leader. For the first hour the cadets energetically moved and piled slash. At the end of the day, all 35 acres were piled and made ready to burn. Based on the success of the volunteer work, future projects are being planned for the cadets in the wildland urban interface.

The Youth Challenge program provides both the cadets and BLM a “win-win” situation. BLM provides training and an introduction to fire fighting as a job or career. The cadets provide BLM with a good source of labor to help meet fuel reduction targets and reduce the fire hazard in the urban interface near Ruidoso. BLM estimated that the Youth Challenge cadets provided approximately 500 hours of volunteer work on this project

The New Mexico National Guard began the Youth Challenge program in 2000 for “at risk” young people.



Youth Challenge squads build piles of debris for later burning.

Youth Challenge enrolls both young men and women in a training and mentoring program. During the 18-month program, cadets spend 32 weeks in residential training at the Youth Challenge Academy in Roswell, New Mexico. During this period the leadership cadre provides education, discipline and structure to the cadets. In many ways this is a boot camp experience for these young people.

In the past year employees from New Mexico State Forestry and the Roswell Field Office provided Basic Fire Fighter training (S-130, S-190, I-100) to the cadets. Last session, over 100 cadets took the class and all passed. With the military discipline approach to training and daily activities, instructing these classes has been easier than most audiences according to Desmond.

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Australia

U.S. Firefighters Down Under

The Australian State of Victoria, during late 2002 and early 2003, endured its worst fire season since 1939. The 20 year average for acres burned in Victoria is approximately 170,000 acres. This fire season the acreage burned will exceed 3,300,000 acres, 40 times their 20 year average.

Responding to the increasing fire situation, the State of Victoria called on assistance from five other Australian states and New Zealand. On January 16, Victoria requested assistance from the United States. This request, which was based on an agreement between the U.S. Departments of Agriculture and Interior and five Australian states, represented the first time that Australia had ever requested U.S. firefighting assistance. The U.S. had requested assistance from Australia during the 2000 and 2002 fire seasons.



A koala bear clings to an ash tree near the coastal town of Lakes Entrance, the R & R location for the American firefighters.

The fire of major concern was located in the Alpine region of the State of Victoria. Parts of the fire extended into the State of New South Wales. It began with several small lightning fires which eventually burned together to cover an area of over 2.5 million acres within Victoria. The three largest fires in the U.S. during the 2002 fire season, the Hayman in Colorado, the Rodeo-Chedeski in Arizona, and the Biscuit in Oregon would easily fit within the perimeter of the Australian fire.

The State of Victoria requested 36 firefighters and one infrared aircraft. The firefighters represented the five major federal land management agencies responsible for fire management in the U.S. The first firefighter departed the U.S. on January 18. The last firefighter and the infrared aircraft arrived back in the U.S. on March 2. Assignments averaged approximately 30 days.



The American handcrew prepares for night shift as a column from the Eastern Victoria fire lays over camp at Delegate River, Victoria.



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U.S. Firefighters Down Under

The firefighters did a variety of tasks including constructing fireline, burning out unburned fuels, mopping up, managing portions of the fire, and providing infrared information to fire planners. All firefighters returned home safely with only one minor injury occurring during the entire deployment.

Photos for this story were taken by team members assigned to Australian fires between January and March this year.



An eerie light is cast over East Gippsland by the East Victoria fire that covered more than two million acres.



Fire runs up a “stringybark” eucalyptus tree. Torching stringybarks throw numerous high-flying and long-lasting embers during Australian wildfires, making control a challenge.



Flagstaff Hotshot Superintendent Paul Musser backburns eucalyptus underbrush near the town of Tubbut, Victoria.



U.S. firefighters cut handline around a 10-acre spotfire in heavy mountain ash/stringy bark forest a few miles east of the Snowy River.



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U.S. Firefighters Down Under



The U.S. handcrew burns out the eucalyptus forest around a farmer's fenceline near Tubbut, East Gippsland.



Troy Cachini, BIA Zuni Hotshots, Glen McLeod, Parks Victoria, Australia, and Dennis Baldrige, USFS Laguna Hotshots pose in front of the Snowy River drainage, about to begin line construction on a 20-acre spotfire, some 20 miles in front of the main fire front.



A pair of American firefighters negotiate an Australian bush track on the way to the fireline. The vehicle is a "pig," an Australian 100-gallon engine.



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U.S. Firefighters Down Under



Hotshots, engine and fuels personnel, and smokejumpers made up the 21-person crew that traveled to Victoria, Australia in January for a 30-day assignment Down Under. Here the crew makes their way down a track enroute to a hand line construction assignment.

Eastern States

Jackson Hotshots Continue Fuel Load Reduction in Southeast

As an encore to their 2002 successful prescribed burning season, the BLM Jackson Hotshots revived their role on National Wildlife Refuges in the Southeast for 2003. The partnership between BLM and Region IV of the US Fish and Wildlife Service was expressly designed for the purpose of fuel load reduction on National Wildlife Refuges. So, the Jackson Hotshot's two modules, each with six to eight crew members, once again "went to work."

Module 104 was primarily working within the Savannah, Santee, and PeeDee Ecosystems, which cover National Wildlife Refuges located within the three state area of North Carolina, South Carolina, and Georgia. Module 103, stationed in Louisiana, was equally successful. They traveled and logged thousands of miles, supporting five additional refuges in three states.

Overall, the Hotshots provided ignition and holding support for approximately 25,000 acres.



Prescribed burn on Sandhill Crane National Wildlife Refuge in southern Mississippi. The burn was closely monitored due to the close proximity of homes.



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Most of the prescribed burning took place in areas that were in close proximity to urban interface situations, and in all of these areas the threat of disastrous wildland fire has been reduced. In addition, they were able to reduce fire risks where ecosystem risks are excessive, while preventing low risk areas from further deterioration.



BLM Jackson Hotshots igniting a prescribed burn on a national wildlife refuge in Georgia.

Oregon

Steens Mountain Cooperative Fuels Reduction Project

Western juniper has altered the appearance of large areas of eastern Oregon over the last 120 years. Fire suppression, livestock grazing and subtle climate shifts over time has permitted western juniper to move out of rocky soil areas into the deeper soil of the more productive plant communities. Open sagebrush grasslands, quaking aspen stands, and riparian woodlands have been converted to juniper woodlands. This change in appearance also has had dramatic effects on the health of these ecosystems.

As the cover of western juniper increases, associated plants are suppressed and ground cover is reduced. Under fully developed western juniper

woodlands, the desirable under story plant cover can be reduced to less than one percent.

The increase in western juniper has also changed the character of wildfires. Fires would historically burn through good groundcover communities at low to moderate intensity. Increases in western juniper have increased fuel loading and the intensity of wildfires, which reduces the ability of low under story to respond positively to fire.

These changes are evident on the Steens Mountain in southeastern Oregon. Large areas of mountain big sagebrush and riparian woodlands have been converted to western juniper woodlands. Many lower elevation quaking aspen stands have also been converted, or are in the process of being converted, to dense western juniper woodlands.

Responding to the situation, BLM initiated the East Ridge Ecosystem Restoration Project in 2000. The overall objective is to reduce the influence of western juniper on mountain big sagebrush, quaking aspen and riparian plant communities. The BLM Burns District has been using a combination of mechanical treatments and prescribed fire to reduce the influence of western juniper and restore pre-encroachment plant communities across the project area. Treatment of the plant community will also help to reduce the chance of high intensity, stand replacing fires in the juniper woodlands.



Western juniper woodlands in mountain big sagebrush plant community on Steens Mountain.



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Treatments have been applied with the cooperation of local landowners and with the support of the Rocky Mountain Elk Foundation and the Oregon Watershed Enhancement Board. Research and monitoring plots were established by the Eastern Oregon Agricultural Research Center, made up of both the USDA and the Oregon State University Agricultural Experiment Station. Two adjacent landowners secured matching funds from research center to treat lands next to the BLM project area. Connecting the projects allowed for an integrated approach to land management and fuels reduction. The cooperation of adjacent private landowners allowed burn units to be designed based on natural features, reducing the need to construct firelines and keeping the overall cost of the project down.

A variety of cutting techniques were used to achieve objectives. In some areas only enough trees were cut in the uplands to facilitate fire spread. Every other to every third tree was cut to help build ladder fuels to move the fire into the canopies of the western juniper. All trees were cut in areas where there was insufficient understory to carry the fire from tree to tree. Cutting in the riparian resulted in heavy accumulation of slash.

Based on site specific research conducted by research center, these areas were burned in the winter to early spring when soil moisture was greatest and soils were frozen. This reduced the impacts of high heat transfer to the soil surface. Early results indicate good response of herbaceous plants following burning.

A prescribed fire was applied in the fall of 2001. Three thousand acres were treated. Approximately 50 percent of the project area was burned, producing a mosaic of burned and unburned areas. Initial results from the fire indicate that there was a 50 percent reduction in the western juniper cover and a two to four times increase in understory vegetation cover. The East Ridge project will continue in 2003 with the burning of 1,500 acres of public and private land on the west side of Kiger Creek.



Western juniper established in quaking aspen plant community. Notice the dead aspen trunks on the woodland floor.



First year understory response to prescribed fire in quaking aspen stand.



Night time activity on the East Ridge prescribed fire in September 2002.



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