

Snapshots 2004

Highlighting BLM projects that support the National Fire Plan.



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Wyoming

Kaycee Wildlife Area Benefits from Prescribed Burn Teamwork

In October, Bureau of Land Management crews from Buffalo and Casper with assistance from the Wyoming Game and Fish Department burned approximately 1,200 acres of pine forests and three-tip sagebrush rangelands southwest of Kaycee along the Middle Fork Powder River Canyon on the Ed O. Taylor Wildlife Habitat Management Area.

The area is managed by the Wyoming Game and Fish Department in cooperation with BLM to provide winter habitat for elk and mule deer.

Bert Jellison, the game and fish regional habitat biologist said he “Couldn’t be happier with what the BLM crews accomplished.”

“We’ve struggled with the weather and have completed several small burns over the years, but this was a huge achievement for wildlife,” he said.

Jellison also praised Rocky Mountain Elk Foundation for continued financial help, Southern Johnson County Fire District for support, and the Wold family, owners of the adjacent Hole in the Wall Ranch, who provided shortcuts to burn sites across their lands.

He said three-tip sagebrush is low-growing sagebrush that is of little use to wildlife. Fall burns are more successful at controlling the species and allowing grasses to get a foothold and compete with it.

Steve Hannan, a burn boss from BLM’s Buffalo office said the goal is to restore forestlands while making them less susceptible to wildfire events. “Fire is a force of nature that shaped much of this landscape,” Hannan said. “We’ve learned that previous fire suppression efforts have resulted in dense stands of trees having high fuel accumulations.”

He added that the combination of drought, diseased trees and heavy fuels sets the stage for catastrophic wildfires. “An adjacent wildfire



Middle Fork Powder River Prescribed Burn Project in progress on October 14 2004. (Wyoming Game and Fish photo)

that occurred in the summer of 2000 killed most pines and cost taxpayers \$175,000 to put it out,” Hannan said. “Suppression costs of wildland fires often exceed \$1,000 per acre, compared to an average cost of less than \$25 per acre for our prescribed burns.”

The prescribed burns are conducted in the spring and fall when the temperatures are cooler and humidity is up. “Our goal is to reduce the density of small pines while preserving the mature fire-tolerant ponderosa pines,” Hannan said.

The burns were ignited Oct. 6-7 and with crews focusing on interior islands on Oct. 8. Under the watch of fire crews the burn continued through Oct. 12.

Wyoming Game and Fish district wildlife biologist Dan Thiele helped with the burn and said, “In the winter we can count up to 800 elk on the habitat area. Mule deer usually winter lower on the slopes, but use the area extensively in the fall and spring months.

“It’s important that elk and deer have nutritious diets just prior to winter. These burns increase the crude protein of their forage, thus helping them to replenish fat reserves that have been



Additional view of the project as it was done. (Wyoming Game and Fish photo)

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Middle Fork prescribed burn project one week after treatment. (Wyoming Game and Fish photo)

overdrawn by suckling fawns and the rut.”

Jellison, a 26-year Game and Fish Department veteran, agrees with Hannan’s and Thiele’s perspectives. “Game and Fish investigations have shown that there’s a 70 percent increase in grass production and a 100 percent increase in forb production when three-tip sagebrush communities are burned,” Jellison said. “Forbs, which are broad-leafed plants, have very high crude protein content. Not only are they more nutritious, but the burned areas green up earlier in the spring and stay green later into the fall. Prescribed burns also set back conifer encroachment into grasslands.”

The BLM and Game and Fish Department are also concerned about the drought’s impacts on the age, vigor and density of the vegetation in the area.

“The drought has given us a glimpse into the future,” Jellison said. “The trees and shrubs are too dense for their own good and the plants are old and decadent. These stressed plants lack the moisture and vigor to fight off bugs and disease. In some areas we’re losing most of the trees, especially in limber pine stands.”

Hannan hopes that their prescribed burning approach will maintain the

long-term productivity of the land. “By thinning the trees and rejuvenating plant growth, we can produce more habitat for wildlife while sustaining working ranches in the area,” Hannan said. “We just need to do more of this type of work.”

Wyoming National Fire Prevention Week Open House

In recognition of National Fire Prevention Week, firefighters from the Wyoming Bureau of Land Management’s North Zone in Worland held an open house encouraging the public to find out more about everything from fire safety and the importance of defensible space, to employment and career opportunities in BLM’s fire program.

“In particular, we wanted to show the community our recently built fire engine bay, our latest wildland firefighting equipment, and familiarize everyone with our capabilities,” said L.J. Brown, BLM North Zone fire operations supervisor.

Also on display were the BLM’s training equipment and facilities, including a sand table used for fire scenarios and discussing lessons learned from tragedy fires.



Crew getting the new engine bay ready for an open house crowd.

Smokey Bear, who marks his sixtieth birthday this year, assisted the firefighters in greeting the young and young-at-heart with memorabilia and snacks. Earlier in the week, BLM firefighters and Smokey visited Worland’s elementary schools and brought fire prevention messages to students and teachers.

People of all ages dropped by the open house, celebrated fire prevention, and learned how they can help the BLM in its effort to keep the Bighorn Basin safe from wildfire.

Contact: L.J. Brown, 307-347-5188



Marvin Matthiesen, engine module supervisor, works with twins Peter and Thomas showing how firefighters use equipment to fight fires. Smokey Bear gave salute to the potential future firefighters.

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Students and BLM Celebrate National Public Lands Day

On September 18, the Natrona County High School Reserve Officer Training Corps and Bureau of Land Management joined forces to conduct fuels reduction work within the Muddy Mountain Environmental Education Area near Casper, Wyoming in celebration of National Public Lands Day.

Reserve Officer Training Corps students moved and prepared slash piles while learning about forestry and fuels reduction. Activities began at 10 a.m. and ended at 4:30 p.m.

This is the fourth year that students have participated in National Public Land Day activities with work on this project.

Public land day events promote shared stewardship of public lands. This nationwide celebration is a day when families and groups of all ages volunteer their time to America's millions of acres of public lands.



Reserve Officer Training Corps students from Casper who worked on BLM's Muddy Mountain fuels reduction.

Idaho

Caribou County Wildland Urban Interface Assessment

During the summers of 2003 and 2004, the Caribou County Fire Department located in Soda Springs, Idaho, developed a wildland urban interface assessment model to determine the risk to communities from wildfire. The model uses weighted factors such as ingress, water supply, vegetative fuels, building construction, topography and fire suppression response.

Thirteen wildland urban interface areas were identified in the county and all 376 homes were assessed and mapped using the model. Each home was located using geographic positioning system coordinates, assessed using a weighted model and assigned a risk



Aerial photo of Bailey Creek South wildland urban interface area in Caribou County. Homes have been color coded according to risk rating. Access roads are marked red, water draft sources are the blue circles, and safety zones shown in green.

rating which ranged from very low to high. The data was then collected in geographic information systems format and detailed maps for each wildland urban interface area were created showing location and relative risk rating for each home, locations of known water supply, inventory of the road systems, and location of potential safety zones for use by residents and fire suppression resources.

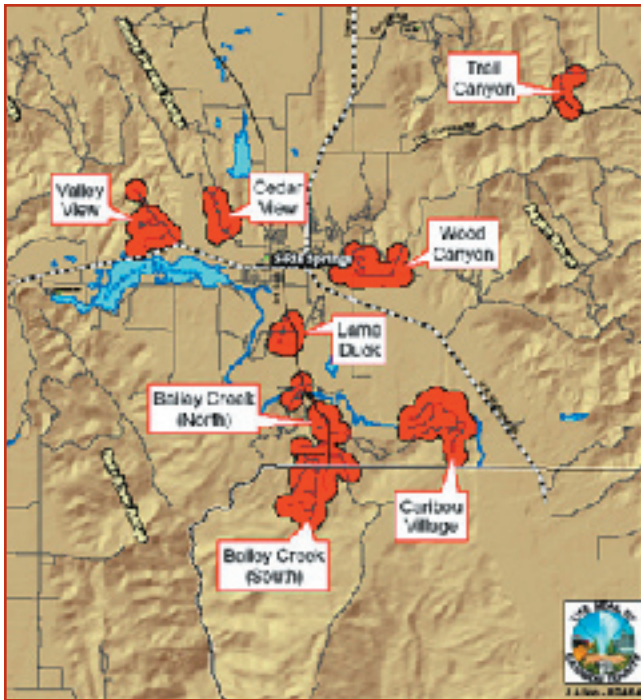
The data is displayed in map books with maps produced on orthophotos with topographic overlays which visually display vegetative fuel types in relation to the structures. The survey was conducted by Caribou County Fire Chief Dennis Godfrey and Josse Allen. Caribou County Fire Department Training Officer

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Identified wildland urban interface areas in Caribou County. A map book complete with aerial photos of each area was created, and an 18 x 24 version can be printed for use in fire trucks or by incident command teams.

who is also a specialist in geographic information systems.

It is estimated the survey took approximately 400 hours of mostly volunteer time to accomplish. The project was done in conjunction with preparation of the Caribou County Community Wildfire Protection Plan funded by the BLM Community at Risk program. Map books will be used by the county and federal wildland fire cooperators to prepare pre-attack and evacuation plans for communities as a result of wildfire or other emergency incidents.

Dennis Godfrey said “The result of this product will greatly increase the response capability of the emergency services departments within the county by providing detailed maps of the wildland urban interface.”

BLM fire mitigation specialist Kevin Conran in Idaho Falls said, “This will also provide for an increase in public and firefighter safety and has provided us with the opportunity to meet with homeowners, increase their awareness and provide public education to reduce the danger from wildfires in the wildland urban interface.” He added, “Because the data is being shared with the BLM and the Caribou-Targhee National Forest, this will further foster strong interagency relationships during unified command wildfire incidents and will greatly facilitate the transition of

incidents to national and/or regional incident management teams should the need arise.”

The assessment will also be used in conjunction with the wildfire protection plan for the county in order to identify and prioritize fuels reduction and other hazard mitigation projects. This product is being looked at by adjacent fire departments and counties as a model for their jurisdictions. The Caribou County Fire Department has offered technical assistance to neighboring fire departments to produce similar products for fire protection districts.

Contact: Kevin Conran, Mitigation & Education Specialists, Idaho Falls Field Office, 208/524-7602

Prescribed Fire Conducted in the Name of Science

In late September, BLM’s Boise District in Idaho teamed up with scientists from the USDA Agricultural Research Service Northwest Watershed Research Center to conduct a prescribed fire for research.

The Whiskey Hill Prescribed Burn was accomplished within the boundaries of the Reynolds Creek Experimental Watershed, one of the largest research watersheds in the United States. This experimental watershed is located approximately 50 miles southwest of Boise in the Owyhee Mountains above the community of Reynolds Creek.

The Whiskey Hill Prescribed Burn is the second of four burns to be coordinated with the Agricultural Research Service. Information gathered through this research could be used for planning future prescribed fire projects and to add to the knowledge base of using prescribed fire to manage intermountain rangelands.

“The primary research purposes for the burn are to investigate vegetation and animal behavior responses to fuel reduction-forage improvement and juniper control with prescribed



A south view of the Whiskey Hill prescribed burn just after ignition. The Reynolds Creek community is to the north. The encroaching juniper thrives just beyond the ridge line.

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fire,” research leader Stuart Hardegree with Northwest Watershed Research Center. “Data from this research could be used to improve similar projects in the western United States where land is, or could be overrun by invasive western juniper.”



An existing aspen stand is spared leaving a mosaic pattern on the landscape.

Juniper encroachment has become an issue for resource managers who are looking for ways to improve fire prone landscapes and restore fire adapted ecosystems. Historical studies of the area suggest that the natural role of the fire cycle has been interrupted, facilitating juniper encroachment into these sites.

“The Whiskey Hill Prescribed Burn went exceptionally well,” said J.R. Epps, acting district fire management officer. Total area burned included 296 acres of privately owned property and 92 acres of BLM land. The successful

effort satisfied goals of a portion of the Reynolds Creek plan for North West Research Center. They will do further research on the impacts of grazing management in the unit in next spring.

The USDA Agricultural Service Northwest Watershed Research Center has been conducting hydraulic and rangeland research at the Reynolds Creek Experimental Watershed since 1960. This project will contribute to a longer-term research and

management plan under development for assessing prescribed fire impacts in the watershed.

Contact: J.R. Epps, 208-384-3486



Boise District BLM and Boise National Forest fire crews use an existing road as a fire break to support ignitions as the Northwest Watershed Research Center employees observe progress.



Nevada

Fuels Treatment Project Aimed at Protecting Rural Community from Catastrophic Wildfire

For residents of one rural community in eastern Nevada, the potential for catastrophic wildfire has gotten a lot smaller, thanks to a BLM hazardous fuels treatment project completed last summer.

The project focused on selective thinning of pinyon and juniper trees on about 750 acres of public land near the Mount Wilson Community Guest Ranch, about 22 miles north of Pioche. The community of 25-30 permanent and summer homes is scattered throughout the heavily forested area near Mount Wilson.

The project has also helped to reestablish a healthy ecosystem of sagebrush, grasses and forbs.

Planning for the project began in March 2003, and called for removal of all but 25-40 trees per acre throughout the project area, according to Kyle Teel, fire ecologist for the Ely Field Office. Contract crews started work in July 2003, and completed the project 12 months later. The result was a natural mosaic of pinyon and juniper trees, sagebrush and open space that slows the spread of wildfire and hastens the growth of grasses and forbs.

“We used two three-wheeled feller-bunchers to create a 600-foot buffer zone around three sides of the community and to thin 150 feet from the center-line of the two access roads, thereby allowing the residents escape routes if need be,” Teel said.

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Teel said the selected trees were sheared off at ground level and stacked for chipping. The chipping process created nearly 9,000 tons of biomass, which was taken to a nearby abandoned airstrip for removal.

While crews were thinning trees on public land, the Nevada

Division of Forestry was responding to a request from landowners and conducting similar operations on private property, helping to further protect the community.

Contact: Kyle Teel, Ely Field Office, (775)726-8117



In this aerial view looking toward the northeast, one can see the 600-foot buffer zone created by selectively thinning pinyon-juniper from alongside the community's northern, western and southern boundaries. Selected pinyon-juniper was also thinned 150-feet from the centerline of the community's primary access road, seen here in the foreground.

BLM-contracted crews utilized two three-wheeled Feller Bunchers to selectively thin and stack the pinyon-juniper. The accumulated woody vegetation was later chipped, resulting in nearly 9,000 tons of biomass. Slated for eventual sale, the biomass is currently being made available to the public for use in landscaping and other efforts.

California

Hats Off to the Big Red Truck

When the Sims Fire broke out in northern California last summer, the Big Red Truck Project made a big difference.

Firefighters who battled the 4,000-acre blaze credited defensible space measures taken by property owners for

limiting loss of structures in the fire. Property owners had bought into the concept, thanks in no small part to The Big Red Truck Project.

The Trinity Resource Conservation District manages a Rural Advisory Council grant that pays volunteer fire departments to inspect properties and inform landowners about changes necessary to protect their properties from fire.

District Manager Pat Frost credited Jesse Cox, chief of the area volunteer

fire chiefs association, with the idea of using a big, red fire truck as part of the inspection program. "He said to get the biggest red fire truck and drive it out to properties so landowners could see for themselves if the truck could clear trees, turn around, cross over culverts," said Frost.

If fire trucks can't safely negotiate their way on and off properties, firefighters won't go there during a wildfire. Hundreds of landowners in Trinity County got the message.

Reporter John Driscoll wrote in the Eureka, California, Times-Standard, that firefighters were happy to see homes considered most at risk from the Sims fire were well-protected. "Residents had cleared vegetation around their homes and had metal or asphalt roofs on their houses. That helped firefighters in their efforts to spare the properties," he wrote.

Driscoll quoted USDA Forest Service Fire Information Officer Keith Wright, who said, "I don't know whether they've seen that before or not. The firefighters were raving about how well the residents were prepared for this situation." The Sims Fire may be an example to communities that haven't begun pushing for better fire protection, Wright added.

Local RACs and fire safe councils in the area leverage grants and assist homeowners in protecting their homes from wildfire. Areas in Humboldt, Del Norte, Siskiyou and Trinity counties have received accolades for fire planning.

The Sims Fire broke out in the Six Rivers National Forest. It flared up quickly in strong down-canyon winds along the South Fork of the Trinity River. Firefighters, after a massive onslaught, contained the fire. A cabin

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and three outbuildings were lost. Firefighters estimated that at least 29 buildings, many of them homes, were spared, in part by defensible space.

Under the RAC grant, the Trinity District pays volunteer fire departments \$25 per inspection for up to 200 inspections per department. There are 16 volunteer fire departments in the county. Fire department personnel roll up in a fire truck, conduct inspections and then inform landowners what they need to do to make their property more fire safe. Frost and Chief Cox visited all the volunteer fire departments to conduct one-day training sessions. The district also publicized the program in local media.

“If it hadn’t been for the fact that so many of those landowners had been informed of what needed to do and then done it, firefighters would not have been able to save as many homes as they did,” said Frost.

The project’s goal is to complete 3,200 inspections, or almost every home in the county.

(Courtesy of Forestry Notes, National Association of Conservation Districts)

Editor, Dave Vickery

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A big, red fire truck rolls out for another defensible space inspection on private land in Trinity County, California. Jesse Cox, chief of the area volunteer fire chiefs association, conceived of the idea so landowners could see for themselves if the truck could clear trees, turn around, cross over culverts.