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Montana

Somewhere in the Middle of Montana...

While Natural Fuels Management and Prescribed Fire program in the Central Montana Fire Zone is less than a year old, the computer keys are warm and the mouses moving in preparation for making chips fly and putting smoke in the air.

As in many BLM offices, new positions with primary duties in fuels were opened and filled in 2001 to follow the directives of the National Fire Plan. One of the first tasks faced was to assess existing planning documents to see if it was possible to implement fuel reduction projects in Montana's



Rural homes are located throughout the central Montana interface.

interface of small towns, ranches, recreation areas, remote dwellings, camps, and historical sites. After reviewing existing documents, it quickly became apparent that a serious planning effort would be necessary in order to implement projects that are NEPA compliant and environmentally sound, as well as meeting the definite need for fuel reduction.

Environmental assessments were initiated, and a summary of our activities follows.



Example of fuel loads in the Camp Creek Campground near Zortman, MT.

Landusky/Zortman Town sites Hazard Fuel Reduction Project and the Little Rockies Watershed Plan

The unincorporated towns of Landusky and Zortman are historic mining camps which began in the 1880s when Pike Landusky and others established claims. The first mills were established in Zortman in 1903. The "Wild Bunch" of Butch Cassidy and the Sundance Kid fame frequented Landusky and used the nearby Missouri Breaks as a hideout. The two towns are located in the Little Rockies which is an island mountain range in the northern plains.



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The towns are located in box canyons with one way access. Frequent references to wildfires in historical accounts indicate that fires have been of stand replacing nature prior to modern fire suppression techniques. The fire of 1936 burned the whole range, threatened both towns as well as the town of Hays on the adjacent Ft. Belknap Reservation. In addition the fire caused the deaths of three geology students on a field trip. Since that time suppression efforts have kept fires small and allowed fuels to accumulate.

The planning effort for fuel reduction around each townsite was initiated in the fall of 2001 and is on schedule to be completed in mid-summer of 2002. Approximately 800 acres around each town are being considered in the EA. Various levels and types of treatment of the predominantly ponderosa pine forest are being considered. Specific attention is being paid to incorporating sound silvicultural practices in the alternatives, due to an emerging mountain pine bark beetle infestation near Landusky.

Several town meetings have been conducted by the Malta Field Office and Central Montana Fire Zone Staff to gather input from the town and reservation residents, county officials, and others to assist resource specialists in developing the environmental assessment. Field meetings are planned to discuss specific ideas, address concerns, potential project areas, and treatments.

The townsite fuel reduction environmental assessment will be part of the larger Little Rockies Watershed plan which was initiated in the fall of 2000. This document is addressing the larger area of nonreservation land in the range which



The photograph of the church taken in early March of 2002.







The church was built sometime after 1910.

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encompasses approximately 25,000 acres. Topics emerging in this effort cover a wide spectrum, but high fuel loads and forest health issues are among the priorities. The opportunity to work with the adjacent Ft. Belknap Indian Community is also being developed.



Zortman, M1, pictured in 1907 (*above*) and today (*left*), is located in a *box canyon in the center of the photo.*

Contacts: Landusky/Zortman: Rich Adams (406) 654-5131 or Brad Sauer (406) 538-1976 Little Rockies Watersheds Plan: Bruce Reid (406) 538-1960

Judith and Moccasin Mountains Landscape Environmental Assessment

Topographically, the Judith and Moccasin mountains are island ranges located just north of Lewistown, MT.

The analysis area encompasses almost 200,000 acres, of which approximately 31,000 acres are public land. Around the turn of the twentieth century, the area was a center of activity for gold mining. Many small tracts of land in the midst of the public land were patented as mining claims. Ghost towns, historic buildings and abandoned or recently closed mines are all that remains of that history, though many farms and ranches from the old days are still operating. A number of the old mining towns have become community centers for an increasing number of permanent and recreational residences. Two youth camps are present, and the area is important to the greater Lewistown community both as a viewshed and for recreation.

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The trees are overly dense through most of the area and have encroached on many meadows and aspen stands. After four years of drought forest health is rapidly declining. Increasing tree mortality is expected to add to already high fuel loads. The analysis will integrate these concerns with recreation, range, watershed and wildlife issues and opportunities to produce a fully integrated plan for the area.

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Because the field office specialists already had a full workload for inventory and analysis, it was decided to accomplish the data gathering and inventory needed to support the environmental assessment through contracting. A GSA contract for environmental services was used to obtain the services of North Wind Environmental, Inc. a company based in Idaho Falls, ID. North Wind will be hiring most of their field personnel from the local community. The work is on schedule for completion in March of 2003.

Contact: Shannon Iverson (406) 538-1989

Arrow Creek Watershed Plan environmental assessment

This watershed plan considers the range, wildlife, riparian and fuels issues in the Arrow Creek drainage on the south side of the Missouri River, west of the town of Denton, MT. Public land in the area covers roughly 30,000 acres.

Planning is focused on implementing BLM Standards and Guides for Rangeland and Riparian Health. Encroachment by ponderosa pine onto historically open rangelands in this drainage is being analyzed by the fuels staff and other resource specialists. The sound application of prescribed fire is a viable treatment option for fuel reduction and ecosystem restoration in this watershed. Completion is scheduled for January of 2003.

Contact: Jennifer Walker (406) 538-1982

Upper Missouri River Breaks National Monument Resource Management Plan

Central Montana zone staff is involved at all levels in the development of this new resource management plan for the new Upper Missouri River Breaks monument. Central zone staff will be participating in scoping sessions with a display that covers the National Fire Plan, the role of fire in nature, historic comparative photos showing change in conifer cover, fire occurrence and fire history in the monument area. Public input for the development of the fire management portion of the resource plan will be sought.

Contact: Mitch Maycox (406) 538-1986

Prescribed Burns

The Central Montana zone is planning to conduct two prescribed burns in the spring of 2002. These burns are the result of planning efforts of the resource staff of the Lewistown Field Office are being implemented for the purpose of wildlife habitat and range enhancement and to reduce hazardous fuels. Approximately 1000 acres in the Armells Creek drainage north of the town of Roy, MT will be treated.

An associated project with the Armells Creek burns is a partnership with the BLM, the Montana Agricultural Experiment Station at Montana State University and the National Fish and Wildlife Foundation. The purpose of this project is to assess changes over a ten



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year period in the vegetation and available surface water in the burn units, and to correlate those changes with observed fire behavior, weather and fuel conditions, and prescribed fire implementation techniques. Paired, statistically similar, adjacent drainages have been located in the burn units.

One drainage of the pair will be burned and the effects compared to the unburned drainage. Shallow wells (6 ft.) have been installed to determine water table depth. Vegetative components of the forest, upland, and riparian communities in the paired drainages have been statistically analyzed to determine similarities. Soil profiles of the paired drainages have also been compared.

Contact: Brad Sauer, 406-538-1976

Interagency Workshop

Montana hosted a Burn Plan Workshop the week of February 25 in Billings. The workshop was targeted to all personnel involved in writing burn plans including fire people and resource specialists. The objective of the course was to teach how to write a burn plan, raise awareness of changes in burn plan requirements and procedures, and to further open lines of communications between



Trainees at a recent Burn Workshop in Billings, MT.

fire and resource specialists. Each group developed a burn plan for the Shepherd Ah Nei area near Billings. About 21 people attended, including one person from the South Dakota State Forestry Department and one from the Lead, South Dakota Fire Department. In addition, National Park Service staff and BLM smokejumpers acted as mentors and helped facilitate development of the burn plans.

Contact: Jim Gray, (406) 896-2911



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California

International Border

Interrupción Internacional De Combustible Que Crece En La Frontera (*International fuel break growing on border*)

The International Fuel Break, located at the border between Mexico and the United States in San Diego County, is one of the most unique Wildland/Urban Interface projects in California.. The fuel break had its origins in the 1930s when a narrow area adjacent to 40 miles of the border was cleared of chaparral brush in an effort to stop wildfires from spreading from one country into the other. Over time, maintenance of the fuel break diminished and soon the chaparral reclaimed the site of the former fuel break.



Fence line marks border between Mexico and the United States. To the left of road, one section of the International fuel break spreads to the horizon.

Fast forward to the late 1990s when "Operation Gatekeeper" tightened border access in the Tijuana, Mexico area. At the same time, the rugged mountainous area of eastern San Diego County experienced a dramatic increase in fire activity. It was determined that illegal immigrants, now using this rural and remote route into the US, were responsible for the increased fire occurrences. The origins of most of these wildfires were immigrant campfires intended for warmth or food preparation that were improperly extinguished and fanned by the hot, dry, and windy conditions the region is known for. The damage these



Rugged section of fuel break.

fires were causing was significant injuries and fatalities, threats to local communities and property, damage to the ecosystem, and high suppression costs. This unprecedented situation required coordinated and comprehensive action.

The reestablishment of the International Fuel Break is one of many projects currently underway to reduce the frequency and intensity of wildfires in the area. BLM's Palm Springs Field Office began the current phase of the fuel break in January 2002 with the assistance of



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Signs posted in Spanish along border fence remind passers by to be careful with fire

and grasses. This habitat would normally be exposed to periodic wildfire disturbance but past management practices, including aggressive fire suppression, have altered the natural mosaic of vegetation in the project area. The lack of fire has increased the amount of vegetative fuels on the landscape, making the area more susceptible to wildfires. In addition, the number of junipers has increased rapidly and encroached on other plant species resulting in less desirable habitat for local wildlife species including deer. The Cedarville fuel thinning project is an effort to improve these conditions. Begun in

the California Department of Forestry and Fire Protection, the California Department of Corrections, and the McCain Valley Conservation Camp. A twomile area about 300 feet wide is being cleared of most woody fuels with grassy fuels, specimen plants, and vegetative islands for wildlife and aesthetics being maintained. Over a period of years, the fuel break is expected to extend along approximately 30 miles of the border which will not only break up the contiguous chaparral fuels to slow or stall a wildfire, but also provide firefighters with safety zones, burnout options, and increased efficiency of aircraft in suppression activities.

Contact: Ron Woychak, (858) 674-2968 or Clay Howe, (858) 676-0894

Cedarville

Near the town of Cedarville in northeastern California, a wildland urban interface project is underway that will provide multiple benefits to the area. The project is located on BLM-administered land that includes stands of native mountain mahogany, bitterbrush, pine, and fir, as well as sages



While piles of trimmed brush are burned under the watchful eye of fire personnel, a newly created break in the fuels is seen in the foreground.



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2001, and currently ongoing, the project is accomplishing a number of important objectives including:

- creating breaks in the vegetation to reduce the intensity and spread of a wildland fire.
- improving the habitat by reducing the number of junipers that are crowding out the less rigorous mahogany and bitterbrush stands
- protecting and increasing critical deer habitat
- promoting new growth that is more diverse than what is being thinned out

Fight pilos of tripmed brush are visible in this

Eight piles of trimmed brush are visible in this photo, an indication of the amount of overgrowth found on the site at the start of the project.

The BLM Surprise Field Office fuels and fire crew are coordinating and

completing the project with local support from the Cedarville Volunteer Fire Department. Property owners along the eastern boundary of the project have also provided input into the project and, as a result, brush that was cut in that area has been piled and burned to create a fuel break between public and private lands. An expected 70 acres will be treated during this project.

Contact: Garth Jeffers, (530) 279-2729





Above: With the outskirts Cedarville in the background, crews burn piles of thinned brush.

Left: Fire is used to dispose of some of the thinned brush.

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Fuel Break Reduces Risk of Fire on Former Army Base



Before treatment - Heavy accumulations of brush before treatment presented high fire danger.

In 1991, Fort Ord Army Base on the Monterey Peninsula of California was decommissioned. In the years that followed, more than 7,200 acres of the former base were transferred to BLM. These lands are among the last undeveloped natural, public lands on the Monterey Peninsula and are home to 35 species of rare plants and animals.

Fire is a natural component of the maritime chaparral habitat found on the base but during the military years, full fire suppression was

employed. As a result, thick and continuous stands of overgrown chaparral are now found throughout much of the back country areas of Fort Ord. In addition, residential neighborhoods have sprung up on private property adjacent to the former base, potentially in the direct path of wildfires that may start on public lands or the source of fires that could burn onto BLM property.

In an effort to improve this volatile situation, BLM's Hollister Field Office's Fuels Crew recently began a Wildland/Urban Interface project that will benefit the public lands of Fort Ord and protect neighboring communities.



Crews use chipper to dispose of cut and piled brush.

The purpose of the project is to thin vegetation adjacent to existing roads and trails to form strategic breaks in the fuels to slow the progress of wildfires. These fuel breaks also provide locations from which firefighters could battle a wildfire. Local support of the project is high and the work is being accomplished using California Department of Forestry and Fire Protection crews. Vegetation removed for these fuel breaks is being finely chipped then

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allowed to decompose back into the soil. To date more than seven miles of the planned 12-mile fuel break has been completed. This project is on-going and is one part of the overall fire management plan for Fort Ord.

Contact: Jon Haag, (831) 394-8314



Wyoming

After treatment - Understory fuels removed and risk of catastrophic fire greatly reduced.

Kemmerer Field Office Cumberland Prescribed Fire Success Story

The Bureau of Land Management's Kemmerer Field Office in cooperation with the Cumberland Coordinated Resource Management (CRM) Working Group's recently completed 17,000 acre landscape prescribed burn is a good example of partners working together to accomplish fire management goals.

Recognizing the economy of large scale burning, utilizing aerial ignition, black-lining from and utilizing existing roads as fire breaks, communicating with and educating small towns and surrounding areas, working around hunting seasons and meeting resource objectives



A helicopter helped with the prescribed burn.

were some of the successes of the Bridger Basin prescribed fire.

The Bridger Basin prescribed fire is a progressive example of where the BLM needs to head to sustain and restore ecosystems in support of land management objectives. The burn was designed to improve plant communities located in critical winter and transitional range for mule deer, elk, antelope, and moose by



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An engine blacklined the perimeter using an existing road.

regenerating these aspen and mountain shrub communities.

The goal of 40-60% blacked areas in a mosaic pattern inside the burn unit allows for an "edge" affect while creating diverse and varied vegetative patterns. Not only is this benefitting big game habitat but a recent sage grouse study indicates the birds use the mosaic areas as well. The study showed the birds use the unburned areas within the burn boundary for nesting and the burned areas where new grasses sprouted, for foraging with their chicks.

Through BLM leadership, the CRM group has been working together since 1993. The group includes the Wyoming Game and Fish Department; representatives from 25 different livestock permittees; Chevron Oil Company; P&M Mining; Medicine Butte

Wildlife and Hunters Association; Bear Lake Regional Commission; University of Wyoming; and other interested parties and organizations.

"The success of this project has involved the efforts of several diverse groups with sensitivity of all the issues associated with their interests. There had been a history of conflict in the area with the main issues centering around livestock grazing, riparian area management and wildlife habitat. The CRM group spent a lot of time working on "people" issues as well as the technical and resource issues. They went through some tough times



A helicopter drops fuel to ignite the prescribed burn.

developing a level of trust and respect between all the partners and tried a lot of things that didn't work as desired. Through their perseverance the group has come to a point where livestock management is such that riparian areas are now improving with some very dramatic results in some areas. These successes have allowed for us to be able to move ahead with large landscape prescribed burns such as the Bridger Basin burn," said Kemmerer Field Office Manager Jeff Rawson.



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- The large scale burns are part of a continuing strategy to meet the following goals:
 - 40-60% black areas in mosaic patterns
 - 75% re-sprouting of mountain shrubs
 - diversify age class structure of vegetation
 - increase vigor and production of grasses
 - rejuvenate decadent aspen stands.

This is the second fire planned in the CRM area:

Collett Creek burn - 7,000 acres - 1995 Bridger Basin burn - 17,000 acres - 1999 Redeye Basin burn - 11,000 acres - 2002 Elk Mountain burn - 20,000 acres - 2004

Wyoming BLM plans prescribed burns after a livestock grazing management plan is in place and follows Wyoming's Fire Management Plans that have been in place since 1998. Because of this advanced planning, prescribed fires such as this, are quite successful.



An elk herd in the burned area. The mosaic pattern of the burn can be clearly seen. The green areas are the new grasses re-sprouted and the gray area is unburned.

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