Snapshots

October 28, 2005

Successful BLM Projects
Supporting the National Fire Plan

Table of Contents

Oregon

Biomass in Oregon..... 1

Colorado

Fuel Reduction Project Offers Educational Opportunity..... 2

Canyons of the Ancients National Monument Rock Art Protected from Fire..... 3

Fuel Treatment Project Helps Firefighters Stop Cash Canyon Fire..... 4

Utah

Building on a Framework for Fiscally Responsible Fuels Reduction..... 5

Dave Vickery, editor
Sheri Ascherfeld, layout and design

Snapshots

October 28, 2005

Successful BLM Projects
Supporting the National Fire Plan

Oregon

Biomass in Oregon

BLM is implementing a national biomass strategy to increase use of small diameter material from forestry, fuels and rangeland treatments. In many cases the Healthy Forests Restoration Act builds upon, and works in conjunction with other programs, including the President's Healthy Forests Initiative, National Fire Plan, and stewardship contracting under the 2003 Omnibus Appropriations Act to reduce threats of wildland fires and restore public land health.

Looking at projects in the BLM Prineville, Lakeview, and Medford Districts highlights the collaborative intent of the biomass concept.

Collecting biomass in central Oregon.

Cogeneration facility at the Confederated Tribes of the Warm Springs reservation in central Oregon.

In central Oregon, the Confederated Tribes of the Warm Springs is seeking to increase cogeneration capability at its tribal sawmill. National Forest and BLM public lands surrounding the reservation contain several hundred thousand acres of land needing restoration work, which would result in biomass as a byproduct of treatment. The U.S. Forest Service, BLM, Warm Springs Tribe, and other partners recently signed an agreement pledging to look for ways to provide reliable and sustainable quantities of biomass for cogeneration. In 2004, the Department of the Interior awarded $195,000 to the Confederated Tribes of the Warm Springs to study further enhancement of cogeneration potential at the plant. In 2005, the National Forest Products Laboratory awarded a biomass grant of $250,000 to help finance the plant upgrade for securing micro turbine.

BLM Lakeview's District Gerber Stewardship Project area.

Another area of commercial forest land, juniper woodlands, and high desert in southern Oregon has a long history of forest and range management treatments with extensive monitoring of the different treatments.

The Gerber Block has been used as a model to demonstrate successful forest health treatments where thinning is combined with prescribed fire. BLM's Klamath Falls Resource Area was recently awarded a stewardship contract that will be another tool to treat stands within the Gerber Block. Treating these forest stands reduces density of overstocked areas, resulting in better resistance to insect infestation, disease outbreaks, and catastrophic wildfires.

These forest health timber sales have been a direct benefit to wildlife which depend on stands within their historic range of variability. In addition, by reducing risk of stand-replacing wildfires, potential hazards to soils, water, riparian vegetation, and wildlife are reduced. The Lakeview District's goal is to design projects, primarily timber sales, which produce receipts equal or greater than costs of implementing projects.

Results of projects implemented so far, based upon post treatment monitoring, have been positive. Underburns and fuel treatments have resulted in decreased fuel loadings, and improvement of stand resiliency. Benefits of juniper woodland treatments have been documented through formal monitoring. Native vegetation has increased as a result of juniper removal.

Snapshots

October 28, 2005

Successful BLM Projects
Supporting the National Fire Plan

A look at the Boaz Project area in southwest Oregon before (above) and after (below) treatment.

In southwest Oregon, BLM is actively involved in a small diameter biomass utilization group called the Southern Oregon Small Diameter Collaborative Stewardship Group. Together with interest groups, industry, and government agencies at all levels, BLM is aggressively seeking solutions to clearing overstocked small diameter material from the forest floor.

As a result of authorities in the Secure Rural Schools and Communities Self-Determination Act of 2000, the 47-acre Boaz Title II grant project will assess the technical and economic feasibility of removing small conifer trees from two to 16 inches in diameter. Market opportunities for this material will be determined and rural workforce capacity will be expanded. The agency and community will be involved in developing and monitoring project effectiveness.

An economic feasibility study on harvest and production costs for using small diameter timber is a key component of this project. Assessments will determine per-acre costs for harvest treatments and production costs and income gained from chips, posts, poles, and small saw log processing of certain size materials generated by the harvest.

Harvesting techniques will include use of a specialized low ground pressure tractor to skid logs to landings on moderate slopes, and a small cable yarder to skid logs to the landing on steeper slopes. A small log Economizer mill will be used on site to manufacture some lumber.

A portion of this project mandates removal of smaller trees less than four inches in diameter, and tops for biomass electrical cogeneration production. This is consistent with recent ideas and discussions about developing electrical utility production through biomass utilization. The amount of biomass produced from this project can be utilized by the local infrastructure.

A chipper and portable sawmill at the Boaz Project area.

As a final result, a monitoring team composed of agency and community members will be created to evaluate the link between forest health goals as established by conditions of sale, and on-the-ground results of the operation. Monitoring results will also be used to determine potential for applying information gleaned from this project to related and future projects.

Contact: Jim Hallberg, BLM Oregon State Office (503) 808-6451

Colorado

Fuel Reduction Project Offers Educational Opportunity

Many hazardous fuel reduction projects offer an opportunity to discuss benefits and effects of prescribed burning, hand thinning, and mechanical treatments. A recently completed project by Northwest Colorado Fire Management fire personnel for the Bureau of Land Management's Little Snake Field Office is a good example of such an effort.

Cedar Mountain, a popular recreational area situated four miles northwest of Craig, Colorado offers a wonderful overview of the valley, hiking trails, as well as a picnic site with tables and grills. Build up of hazardous fuels combined with risks associated with human activities led fire managers to identify this area as high risk

for a devastating wildfire. Another factor that concerned fire managers was the abundant crop of grass produced this year which could carry a wildland fire through continuous fuels of serviceberry, sagebrush, and juniper.

Fire crews flagged 15 acres around the parking and picnic areas for treatment, which was accomplished through a combination of mowing, mulching and hand thinning.

Because of the site's proximity to the community, it afforded an excellent opportunity to invite the public for an open house on site. During this time, people could look at the treatment area as it was being discussed and offer comments or ask questions. Flyers with before and after photos of a similar site with the same vegetative component were distributed to illustrate what the area would look like after completion of the work.

When the words 'hazardous fuel reduction' are uttered, many people visualize an area void of any trees. This was a chance to help them understand alternatives to clear cutting in order to minimize fire spread and provide safer conditions for firefighters.

Continuous fuels around picnic tables were removed with the goal of leaving some for privacy for visitors.

Cedar Mountain overview opened up as the result of hazardous fuel reduction.

The media was also invited. The project was well publicized with print and televised coverage before and during the open house and actual project work, as well as wrap-up stories upon completion. This highlighted the type of work homeowners can do on their own property to reduce fire danger by mowing weeds, removing lower limbs of trees, and breaking up continuous vegetation. Slash piles will be burned this winter when there is snow on the ground. The final installment of media coverage will be this coming summer when grasses return, allowing people to see results a year later.

This hazardous fuel reduction project met several objectives concerning safety by decreasing potential fire intensity, providing a safer environment for the public and firefighters, and lowering risk of damage to area facilities. It also provided a platform for public outreach not only to those who visited during the open house but also to readers and viewers of subsequent stories. Treatments also reduced the risk of fire spread to neighboring landowners and surrounding landscape thereby protecting the aesthetic and social reasons people enjoy this area.

Contact: Lynn Barclay, Fire Mitigation-Education Specialist, 970-826-5096

Canyons of the Ancients National Monument Rock Art Protected from Fire

This fall, volunteers and San Juan Public Lands Center employees reduced the fire hazard at a unique Ancestral Puebloan site in Canyons of the Ancients National Monument, managed by the Bureau of Land Management. The project is the first of its kind in the monument aimed at reducing fuels to protect a cultural site.

A cyclone fence had been constructed around the site in the 1960's to exclude cattle and discourage vandalism, however, nothing had been done to reduce growing fire danger resulting from a proliferation of dense, volatile greasewood and cheatgrass growing rampantly near the sandstone wall.

Both heat and smoke from a wildfire can be very detrimental to rock art. Heat can alter or weaken the surface of stone so that rock art is more vulnerable to deterioration by temperature fluctuations, water, and wind. When smoke blackens stone walls or leaves soot on images, it's not only harder to see the images, but also more difficult for archaeologists to date them.

An adjacent landowner expressed concerns about the fire hazard to Bob Clayton of Kinder Morgan CO_2 Company who sits on the Monument Advisory Committee. Clayton contacted Monument Manager LouAnn Jacobson, and the project was born.

Several weeks before the brush cutting phase of the project occurred, herbicide was applied to the greasewood. A skid-steer with a mower was used to complete most of the work.

Volunteers gather in from of rock art panels after treatment work was done.

Snapshots

October 28, 2005

Successful BLM Projects
Supporting the National Fire Plan

Painted Rock art site is at the left side of the fence.

Hand work was completed with loppers, rakes, and wheelbarrows. Brush was cut back several hundred feet from the wall and then piled to be burned.

The Painted Hand Rock Art Site has hundreds of images dating from 1,500 B.C. to the 1950s. Hundreds of rock art images are pecked and abraded into a sandstone cliff that extends 400 feet in length along a canyon bottom. Images are believed to have been made by Ancestral Puebloans, Utes, and possibly Navajos and Jicarilla Apaches, as well as ranchers, cowboys, sheep herders, a government trapper, and perhaps early military personnel.

The art portrays bear paws, deer, livestock, buffalo, lizards, birds, humans on horseback with bows and arrows and with rifles, and historic inscriptions.

Clayton was instrumental in all phases of the project. He obtained equipment donations from several local companies and recruited a dozen boy scouts and scoutmasters from Cortez, who contributed 232 hours of hard work. The work helped the boys complete their "Historic Trails" badge requirements.

One of the many rock art panels at the site.

An added benefit of the project is now that brush has been cleared away from the cliff face, many rock art images, not visible before, can be seen.

Area prior to being treated.

Fire crews will burn resulting brush piles, and additional documentation will be made of the rock art. Future mitigation will included periodic spraying and brush removal.

Contact: Linda Farnsworth, Monument Archaeologist, 970-882-6514

Fuel Treatment Project Helps Firefighters Stop Cash Canyon Fire

"As fire managers and fuels specialists, we always tell the public that thinning treatments will help slow a wildfire by dropping it to the ground where firefighters can deal with it better," said Kevin Joseph, Fire Management Officer for the Dolores Public Lands Office. "Now we have an area we can actually show them," he said in talking about the scene of September's Cash Canyon Fire in southwest Colorado.

Located approximately seven miles northeast of Cortez, Colorado, Cash Canyon consists of both private and Bureau of Land Management lands and is comprised primarily of pinyon juniper forest with grass and shrub undergrowth. When the fire was reported around 1:00 p.m. on September 2nd, it was only three acres in size, but initial size-up indicated a high spread potential with structures threatened.

Early afternoon winds came out of the west-southwest helping the fire to burn intensely to the east, with numerous spot fires and crown fire runs of 25 acres or more at a time in the dense pinyon and juniper. Heavy, dead annual grasses and a high percentage of dead pinyon trees also contributed to the rapid rates of spread. By late afternoon,

Incident Commander Kevin Joseph stands in burn area looking toward the fuels treatment area.

Where the fire ran into the fuels treatment area, only spotty ground fire and limited scorching was evident.

thunder cells developing over the La Plata Mountains to the east created easterly winds that pushed the fire back to the west, resulting in the evacuation of 10 homes and the establishment of structure protection. In addition to engines and hand crews, two heavy air tankers, a lead plane and two helicopters were ordered to fight the fire.

The fire grew to 171 acres and firefighters had it contained late that same evening. They attribute much of their success to the Stinking Springs hydro mowing project completed in 2002, just to the west of the fire. The fuels treatment occurred on approximately 413 acres of BLM land at a cost of $66,000. It had been identified in the Montezuma County Community Fire Plan as a high wildfire hazard area. The treatment involved mowing dense pinyon and juniper, along with pockets of sagebrush, to create a more open, park-like appearance and reduce the risk of a wildland fire.

In the center of the fire, all vegetation was completely burned.

Firefighters reported the fire behavior moderated significantly when it reached the treatment area. The fire stayed on the ground and out of the crowns of the trees, spreading through the annual grasses and pockets of brush that had not been treated. Spot fires were fewer and easier to detect and suppress. Fire line construction was faster and safer in the area that had been treated. Fire retardant from the two heavy air tankers proved very effective in the fuel treatment area. With the open, park-like appearance, the fire retardant not only covered the trees but also covered fine fuels on the forest floor.

No structures were lost after the first initial attack units arrived on the scene. Two small outbuildings were lost at the point of origin where a homeowner ignited the fire when he was cutting rebar. The final cost of suppressing the fire was approximately $160,000.

Kevin Joseph, who was the Type 3 Incident Commander for the fire, said "Without the fuel treatment, the fire would have likely continued to spread into the next day resulting in increased fire suppression costs and additional damage to resources, including homes and power lines."

Resource specialists monitored the fire after it was extinguished. In the dense, untreated stands near the center of the fire, the fire burned with such high intensity that all trees and shrubs were lost, along with all the ground cover. Fire effects to soils could be described as severe for both erosion potential and for reestablishing vegetation.

In the fuel treatment area, many of the trees had scorch damage but should survive. Other trees were virtually unscathed. Much of the ground cover was still intact with both pockets of unburned ground vegetation or light fire effects to soils.

The Cash Canyon Fire was the first time a high-intensity fire had spread into an area that had been masticated with a hydro mower on the San Juan Public Lands. In theory, firefighters and fuel specialists knew that this type of fuel treatment would be effective. In reality, the fuel treatment was not only effective in modifying fire behavior but also provided firefighters with tactical advantages and increased safety. Detrimental fire effects to resources such as trees, ground cover, and soils were also significantly less within the treated area.

Utah

Building on a Framework for Fiscally Responsible Fuels Reduction

The BLM Salt Lake Field Office has been addressing budget issues related to reduction of hazardous fuels on the Salt Lake District since its inception. Five years ago the architects of the fuels program developed a framework to spend funds effectively, monitor and account what is accomplished with taxpayer dollars.

"Since the National Fire Plan, the nation has experienced

domestic disasters that have competed for available resources," says Fuels Manager Brook Chadwick. "Now more than ever we need to prioritize projects based on accountability for what can be accomplished with allocated funds."

Five years ago how many communities, watersheds or type of wildlife were threatened by risk of a catastrophic wildfire were unknown. Through targeting high risk areas, a community at risk list is now in place which identifies where high value resources are threatened, where they are located and what it will take to lower risk. The Northern Utah Fuels Committee meets on a semi-annual basis to check the pulse on priority status in each area alongside cooperators.

Creativity has been a key factor to cost savings while managing fuels on the Salt Lake District. Stewardship contracting, out-of-house and in-house contracts, working with local landowners, stakeholders and other agencies are just some of the tactics to help land managers achieve fuel objectives.

For example, the Association of Wood Gatherers formed as a result of a stewardship contract to reduce decadent and volatile juniper in Tooele County. Partners to make this happen included BLM, Utah State University Extension Service, and local citizens interested in firewood and post and poles for their fencing.

High risk area residents map out strategies at a Utah Living With Fire meeting.

Working to make sure everyone is on the same page in planning for the project.

To date, work has been in developing and implementing a fuels management program that includes reducing future risk of wildfire to lives and property.

Barry Hill, associate director of the Energy and Resources Division of the General Accounting Office best explains the work mission when he said, "Reducing fuels, the third component of a comprehensive management strategy is proactive, reducing the risk of future fires by removing accumulated hazardous fuels."

Salt Lake's field office aligning itself with other organizations, disciplines and agencies that identify with the mission and embrace guiding principles of the National Fire Plan, has been able to share costs associated with project work. The State of Utah, Division of Wildlife Resources has provided seed to many projects enhancing wildlife habitat.

Resources for reducing the threat of wildfire must be well spent. Now more than ever accountability must be a priority. By focusing hazardous fuels reduction activity and research on areas most at risk to a devastating wildfire, appropriated funds have been well spent.

Contact: Erin Darboven, (801) 977-4328, or erin_darboven@blm.gov