



Dillon Field Office Takes Steps to Protect Threatened Whitebark Pine



The Dillon Field Office forestry crew applies pheromones to a worthy whitebark pine they named "The Tree of Life," which is estimated to be well over 300 years old. Photo by Emily Guiberson

Dillon foresters are up a tree.

Ever since the U.S. Fish and Wildlife Service determined that the whitebark pine is a threatened species, they have been working diligently to protect the trees they can and to collect seeds for restoration efforts. And that means they are—literally—up a tree.

Whitebark (*Pinus albicaulis*) is a high elevation five-needled pine that can generally be found in pure and/or mixed conifer subalpine stands on the top of windswept ridges. The cones and seeds of whitebark are a primary food source for several wildlife

species, namely grizzlies, due to their high caloric and fat content. Seed dispersal is done almost entirely by the Clark's nutcracker, a bird that caches the seeds which will eventually germinate, if not found again by the Clark's nutcracker, grizzlies, rodents or other birds.

Whitebark is rapidly declining across its range due to a couple of factors--exotic white pine blister rust and the native mountain pine beetle. Blister rust results in branch and stem canker infections

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that typically lead to the girdling and mortality of the tree. Warming temperatures have allowed pine beetles to move higher in elevation where they have a devastating effect. Unlike lodgepole pine, whitebark pine is not expected to regenerate and recover in many places after beetle populations decline. The loss of this keystone species has serious implications for snowpack retention, wildlife and fisheries, as well as the function and structure of our entire western subalpine ecosystem.

During the summer of 2010, the U.S. Fish and Wildlife Service announced a 90-day finding on a petition to list whitebark pine as endangered or threatened and to designate critical habitat. In July 2011, the finding was released; whitebark pine was given a 'warranted but precluded' status with a listing priority number (LPN) of 2, which means FWS has determined the threats are of high magnitude and are imminent. To put it in perspective, the Greater Sage-Grouse has an LPN of 8.

Since the initial listing, the Dillon Field Office forestry crew has spent its field seasons seeking out stands, applying anti-aggregate pheromones to

healthy trees, identifying trees that are suspected to be blister rust resistant, and collecting cones from multiple sites and trees.

Collecting cones from these trees is a task in itself. The cones do not open and disperse seeds on their own as many other conifers do. Because the nutrient-rich seeds are highly sought after as the cones ripen, it is essential to protect the cones. This is done by placing cages made of hardware cloth over the cones and branches in the mid-summer months. Skilled climbers must carefully navigate their way up to the highest branches of trees found at the tip-top of windswept ridges, canopy swaying, balancing, stretching and straining to place cages over the precious seeds found within the cones. Those who have mastered the art are highly sought after and difficult to come by. Last summer the Dillon Field Office certified two forestry technicians to ensure that the task would be accomplished.

If you miss your climbing window, a good cone crop can quickly disappear.

"We had picked out a tree to climb and cage, but got pushed off the mountain by weather. We came back to get it the



Emily Guiberson with some of the harvested cones. Photo by Aly Piwovar

next day and all of the cones were gone!" recounted Nancy Bockino, ecologist and climber from Grand Teton National Park. "On a good cone crop year it's a race between us and the birds!"

Climbers must return 6-8 weeks later when the cones are ripe to remove the cages from the branches and harvest the cones. The cones go to the Coeur d'Alene Nursery where they are extracted, cleaned and stored. Seeds from trees that are suspected of being rust resistant will undergo multiple tests to determine their level of resistance. The seedlings that prove to be rust resistant will be used to restore whitebark pine sites.

The Dillon Field Office will continue these efforts for this field season and into the future. As long as there are trees to protect and cones to collect, we'll be there.

*Emily Guiberson
Forester
Dillon Field Office*



Dillon Field Office Forestry Tech Weston Miller climbing and caging a whitebark. Photo by Dana Perkins

Western Montana District Employees Get Hot Award

It may not be an Oscar or a Grammy award, but a fire mitigation team from the Bureau of Land Management Western Montana District is now the proud owner of a “Sonny.” That’s what the Tri-County FireSafe Working Group has dubbed the annual Sonny Stiger Wildfire Mitigation Award which is given to recognize superior work in the field of fire mitigation.

This year, the Butte Field Office earned the 10th Annual Sonny “for all the good things they do on the mitigation scale,” said Pat McKelvey, a founding member of Tri-Co FireSafe, during a formal presentation of the award at a recent meeting.

The BLM fires and fuels staff receiving the award included John Thompson, fire management officer; Terina Mullen, fire mitigation and education specialist; Charles Tuss, fuels program manager; and Greg Campbell, fire management specialist.

Tri-County FireSafe Working Group is instrumental in fire mitigation and preparedness for wildfires. It is made up of local, state, and federal representatives including local citizens, private contractors, and local businesses from Lewis & Clark, Jefferson, and Broadwater counties.



Sonny Stiger presents the Sonny Stiger Wildfire Mitigation Award to Butte Field Manager Sherri Lionberger. The award recognizes outstanding work in the field of fire mitigation. BLM photo



Greg Campbell, Charles Tuss, John Thompson, and Terina Mullen pose with the Sonny Stiger Wildfire Mitigation Award from the Tri-County FireSafe Working Group which recognizes superior work in the field of fire mitigation. *Photo by David Abrams*

The award’s namesake was also on hand to sing the praises of the fire team.

“The BLM has kept this organization alive,” said Sonny Stiger, who started the Tri-Co FireSafe Working Group in 1984. “You have supported us all the way—sometimes when support was hard to find.

“If you want to see the epitome of what Tri-Co has been trying to do from the start, just go to the BLM land on Hauser Dam Road,” he added. “It’s a beautiful piece of work.”

Stiger was referring to the recent project which, thanks to the partnership with BLM, now has just over a mile of primary evacuation route mitigation.

As Stiger handed the award to acting Butte Field Office manager Sherri Lionberger at the meeting, he said, “This is for everything you’ve done to keep projects moving along without a lot of strings attached and no stipulations. It’s been a very good relationship.”

Later, at a Butte Field Office all-employee meeting, Sherri Lionberger said, “You all should be very proud of John, Terina, Charles and Greg. They put the name of the BLM out in front of the public in a good light—and that’s a very good thing.”

*David Abrams
Public Affairs Specialist
Western Montana District*

Historic Homestead Site Gets New Life



Each log on each wall receives a unique label they can be replaced in the proper location. From left to right, Lewistown Field Office employees Rangement Management Specialist Steve Smith; Law Enforcement Ranger Jon Edwards; Outdoor Recreation Planner Kelly McGill; and Range Technician Betty Westburg. BLM photo



BLM and U.S. Forest Service crew members remove another course of logs from the historic Wartzenuft barn. The BLM will reconstruct the structure later this summer after reconditioning the usable, original logs or replacing those logs that cannot be reused. BLM photo

The BLM Lewistown Field Office has begun restoring the historic Wartzenuft Barn, located on the Musselshell Trail in northeastern Fergus County.

The barn, which is eligible for listing on the National Register of Historic Places, has been in need of restoration for over 20 years, and this year the funding and expertise became available to complete the work. The Forest Service's Historic Preservation Team will lead the preservation effort.

This hewn log barn was constructed before 1920 on the Edwin Wartzenuft Homestead. Today, the surviving buildings on site include the barn and a 1½-story hewn log house. The property came back into public ownership in 1982 as part of a land exchange.

The restoration effort is being completed in conjunction with the BLM's commemoration of the 150th Anniversary of the 1862 Homestead Act.

Work to disassemble the barn and assess the condition of the logs was completed the week of April 9-14, and footings were poured the week of May 14. Beginning May 29, the BLM has been reconstructing the barn, salvaging original logs whenever possible and replacing rotten ones with new logs hewn to match the original logs.

Work is expected to continue through July. For more information on this project or any of the BLM's homestead commemoration efforts please contact BLM archaeologist Zane Fullbright at (406) 538-1923.

*Craig Flentie
Public Affairs Officer
Central Montana District*

Shaping America's History

*BLM commemorates 150 years of
The Homestead Act.*



<http://blm.gov/n8jd>

Dillon Biologists Assist with Bighorn Sheep Augmentation



Bighorn ewes in a horsetrailer, ready for release.

In January, Dillon wildlife biologists assisted Montana Fish, Wildlife & Parks with relocating 49 bighorn sheep to the Tendoy Mountains south of Dillon, augmenting an existing herd of about 50.

The sheep were captured on Flathead Lake's Wild Horse Island using aerial net gunners from a helicopter. Once on the ground, two to three "muggers" would jump out of the helicopter, remove the net, hobble and blindfold the sheep, and then put them in a sling for transporting by helicopter.

At the handling location near Big Arm, Mont., BLM biologists Katie Benzel and Kelly Bockting assisted FWP veterinarian Neil Anderson and lab technicians with taking blood samples, nasal swabs, and fecal samples to test for diseases. Five sheep were also fitted with VHF radio collars.

That done, the sheep were loaded into horse trailers and their blindfolds and hobbles removed. The BLM biologists transported 11 sheep in a horse trailer provided by the Dillon Field Office,

releasing them at Muddy Creek in the Tendoy Mountains.

It took three days to capture and transport the 49 sheep. Prior to this removal, the sheep population on Wild Horse Island was 230; the island's carrying capacity is about 120. It's not uncommon to lose a few animals due to the stress of

capture and transport, but this time all the sheep were transported safely. It was a great feeling to watch the sheep enter their new habitat.

We have a great working relationship with local FWP biologist Craig Fager and were pleased to be asked to assist with the effort. These are the projects that every biologist wants to be involved in.

Bighorns were re-introduced on BLM land into historic range in the Tendoy Mountains in 1985 and 1986. The initial transplants of 53 sheep increased to more than 150 before they underwent pneumonia die-off events in 1993 and 1999. Subsequent transplant efforts of 19 bighorns in 1997 and 30 in 2002 showed mixed results. Hunting was re-authorized in 2005 and the goal with this augmentation is to maintain a huntable population.

*Story and photos by
Kelly Bockting
Wildlife Biologist
Dillon Field Office*



Biologists collect information from bighorn ewes before releasing them in the Tendoy Mountains south of Dillon.

Purdys Recognized with Prestigious Volunteer Award



Craig and Marjorie Purdy were recently awarded the BLM's Making a Difference national volunteer award for their service in the Upper Missouri River Breaks National Monument. BLM photo

Craig and Marjorie Purdy of Missoula, Mont., have been awarded the BLM's prestigious 2012 Making a Difference National Volunteer Award for their resolve and foresight as volunteer campground hosts last summer along the Upper Missouri River in the Upper Missouri River Breaks National Monument.

The Purdys share a lifelong appreciation of America's public lands and after their retirements, volunteering as campground hosts seemed an obvious means of giving a little back to the public lands that have provided them with so much enjoyment. As volunteer campground hosts, the Purdys were responsible for visitor contacts; registration of campers, boaters and other recreationists; campground maintenance; and information dissemination: in short, they represented the BLM in all aspects of campground visitor services.

Craig and Marjorie began their volunteer campground host assignments at the Kipp Recreation Area last summer and

set about their duties with enthusiasm, professionalism and a great "can do" attitude. But little did they know just how busy their summer volunteer season with BLM would be.

A year ago last May, heavy rains and extreme snowpack runoff combined to create severe flooding throughout Montana, and much of the flood water found its way into the Missouri River drainage. Craig and Marjorie monitored the rising waters and kept BLM managers and visitors informed of the changing conditions. The flooding conditions and forecasts for more flooding became so severe the BLM closed the Kipp Recreation Area. Common sense and public safety were the driving factors behind this closure. The Purdys did an outstanding job of overseeing the evacuation and were the last to leave the popular camping area.

About that time another need arose at a BLM campground about 100 miles upriver. Coal Banks Landing was in need of assistance and the Purdys cheerfully moved their summer belongings to their second assignment of the season. A new visitor center contact station and Coal Banks was nearly finished and the campground needs some renovations. Craig applied his considerable skills to the finish work on the building and the campgrounds as Marjorie assisted river floaters, boaters and campers. Thanks to their efforts, the construction work and renovations at Coal Banks Landing were finished without missing a beat, while a steady flow of visitors used the area.

Then by midsummer an unexpected staff shortage at another campground (Judith Landing, about 47 river miles back downriver) led the Purdys to pack up and move to their third duty station of the summer. Craig and Marjorie spent the remainder of last summer at Judith Landing and very much enjoyed their duties at this remote and picturesque

campground and take-out site. As usual, the Purdys provided great customer service and kept the Judith Landing Recreation Area in excellent condition during their stay.

The Making a Difference National Volunteer Award recognizes those volunteers who go above and beyond their duty description to help visitors enjoy their stay on public lands.

"It seems a bit of an understatement to say the Purdys served above and beyond their duty descriptions. They worked at three different duty stations last summer and brought a sense of enthusiasm and a dedication to visitors and to their work every day," offered Mark Schaefer, a recreation planner on the Upper Missouri River Breaks National Monument staff in Fort Benton.

As of May 15, 2012, Craig and Marjorie have returned to their beloved Missouri River and resumed their campground host duties at Judith Landing Recreation Area in the Upper Missouri River Breaks National Monument.

*Craig Flentie
Public Affairs Officer
Central Montana District*

Outdoor Ed Day draws a crowd

MILES CITY -- Scores of students from Miles City area town and rural elementary schools were bussed to the BLM's Matthews Recreation Area for Outdoor Education Day in May.

Students and teachers alike were rotated through various stations that covered subjects including wildland fire, recreation, minerals, soils, archaeology and gold panning. Outdoor Education Day has become a long-time annual spring-time rite, and teachers look forward to it as much as the kids.

BLM staff, volunteers and BLM retirees chipped in to make the event exciting for the kids, many who have had little exposure to the outdoors, let alone the variety of jobs that make up the BLM. MCFO-administered Matthews Recreation Area has been the traditional locale for this event and is situated close to Miles City facilitating its use for local education activities.

*Story and photos by
Mark E. Jacobsen
Public Affairs Specialist
Eastern Montana/Dakotas District*



Eastern Montana/Dakotas District Manager Diane Friez (right) and a student talk over some gold pan findings. Outdoor Education Day was held May 8 at the BLM-administered Matthews Recreation east of Miles City.



Miles City Field Office staffer Dan Fox teaches area elementary school kids the basics of oil and gas extraction during Outdoor Education Day.



Miles City Field Office Rangeland Management Specialist Jody Mason (background, left) was on-hand with several range staffers to discuss the "dirt" on soils. Students from area elementary schools took a welcome break outside and got a closer look at the natural world, at this annual springtime event hosted by the Miles City Field Office.

Elk in the Air!

BLM assists FWP in baseline study of brucellosis in elk



A cow elk is flown in for testing during a brucellosis project conducted by Montana Fish, Wildlife and Parks south of Dillon this winter. BLM biologists from the Dillon Field Office assisted with the study. Photo by Katie Iverson

Dillon Field Office wildlife biologists Katie Benzel and Kelly Bockting recently assisted Montana Fish, Wildlife & Parks with its elk brucellosis project south of Dillon.

The operation entailed net-gunning cow elk from a helicopter, hobbling and blind-folding them, and then placing them in a sling for transport by helicopter. The elk were transported to the FWP lab crew where the BLM biologists helped draw blood, put in ear tags, take temperatures, and collect fecal samples. Thirty GPS collars and eight VHF radio collars which are programmed to “blow off” in a year were also deployed.

The drawn blood was tested for brucellosis out in the field. Cows that tested positive for exposure

to brucellosis were pregnancy tested by ultrasound and fitted with a GPS collar that won't blow off and a transmitter that will drop when she either aborts (symptom of brucellosis) or gives birth.

Once a transmitter is expelled, biologists will search the area to locate the birth site. Any remaining birth material will be cultured for brucellosis to determine if the bacteria are being shed.

The motivation for this project stems from a change in Montana rules regarding brucellosis. In the past, if one cattle herd in Montana tested positive for brucellosis, the whole state lost its “brucellosis free” status. Under the new guidance, the cattle herd in

question is quarantined until it either depopulates or tests brucellosis free.

Elk in the Greater Yellowstone Area have tested positive for brucellosis, and this study focuses on elk herds that neighbor areas where the disease is known to exist. This effort to track the disease in elk populations provides information on areas where there could be a risk of brucellosis exposure to cattle.

Another reason that FWP is focusing on this area is that over the past several years FWP has handed out brucellosis kits so that hunters can collect blood samples from the elk they harvest and submit them for brucellosis testing. Sample sizes from hunter-harvested elk have been too small to determine the presence or absence of brucellosis in the hunting district where this year's elk captures occurred.

Although no cattle herds in the areas where elk were captured have tested positive for brucellosis, this study is gathering baseline elk herd data to get an idea of how prevalent the disease is in these elk herds.

*Story and photo by
Katie Iverson
Wildlife Biologist
Dillon Field Office*

Without a Hitch

Musselshell Breaks Rx Burn safely achieves goals

The Central Montana Fire Program recently completed a textbook prescribed burn in eastern Petroleum County, northeast of Winnett, Mont.

Tin Can Hill Unit B contains about 4,000 acres which has been divided into three subunits (the East, Middle and West blocks) for fire management purposes.

The fuels and topography in Unit B are typical of the Musselshell Breaks with grass and sagebrush ridges giving way to timbered coulees. Conifer stands are predominantly ponderosa pine and are interspersed with areas of open rangelands. Pine stands in the uplands are generally open, with scattered pockets of seedlings becoming established under the mature overstory and encroaching into areas of open range lands.

On April 9, the BLM began work on the 1,700-acre Middle block by black-lining the edges. Black-lining involves using hand ignition firing devices such as the drip torch to apply fire

to the edge of the unit boundary in a controlled manner. Increasing the width of the boundary allows for increased safety during holding operations.

Black-lining operations were successful. The next day, weather conditions were right and aerial ignition began with the use of a helicopter and a Plastic Sphere Dispenser (PSD). The PSD injects ethylene-glycol into a plastic sphere to initiate an exothermic reaction, and then expels the primed sphere from the aircraft. The machine can be regulated to control the number of spheres being dispensed, establishing ignition patterns on the ground.

The PSD machine was developed as a method of igniting ground fuels on large acreage in a short time without causing undue damage to the overstory. This method is cost effective, environmentally acceptable, and readily available.

The resource objectives for the prescribed burn were to improve or

maintain the fire regime condition class of the ponderosa pine stands, and to reduce available fuel loads, ladder fuels, stand density and conifer encroachment into meadows and adjacent rangelands.

The prescribed burn went just as planned.

“The operations were safe and the burn met all of the resource objectives,” according to burn boss Josh Barta.

As a standard safety valve, fire crew members stayed on site to patrol, monitor and mop-up for any residual heat left in the burn. On April 12, a Lewistown Portable Remote Automated Weather Station located at the site measured .26 inches of rain.

“It’s hard to beat that order of events with any prescribed fire,” Barta concluded.

Approximately 500 acres of the East block were burned in May of 2011, just prior to last spring’s extreme flooding.

The Central Montana fuels specialists are now monitoring the weather as they prepare to burn the 1,600-acre West block.

*Cathy Barta
Ecologist
Central Montana Fire Zone*



A recent prescribed burn in Petroleum County, Mont., safely and successfully met all the resource objectives as planned. Photo by Cathy Barta

At Pompey's Pillar National Monument --

Developing Workforce Skills and Forging Partnerships through Hands-on Training

What do Girl Scouts, chainsaws, and marshmallows have to do with managing conservation lands and developing the future workforce?

This past April, Pompeys Pillar management provided a unique opportunity to use conservation lands as a training ground for local youth corps members. Sixteen Montana Conservation Corps (MCC) members participated in the S-212 chainsaw training. This is nothing new for the MCC, but the setting and multifaceted purpose made this class a model for integrating training with meeting resource objectives and developing partnerships.

The well-established training course offers instruction in the operation and maintenance of chain saws. What made this training unique was that the felling,



Montana Conservation Corps workers during a chainsaw training session at Pompeys Pillar National Monument. Photo courtesy of MCC



Girl Scouts roast marshmallows for s'mores during the national Girl Scout Centennial celebration in April. Their fires were fueled by wood products from a chainsaw training exercise at Pompeys Pillar National Monument. Photo courtesy of Girl Scouts

logging and scattering were conducted in conjunction with hazard tree removal and proactive forest management that would typically have been contracted to professional arborists. In addition, the dead (and now down) materials were used to support a newly established partnership.

Following the training session, the Pompeys Pillar staff hosted a campfire station as part of the national Girl Scout centennial celebration. Implemented by our local council, Girl Scouts of Montana and Wyoming (GSMW), the celebration drew upwards of 500 youth attendees from across the 2 states. Clad in buckskins, the staffers tended the fire and talked about the journey of Lewis and Clark while the girls roasted marshmallows and made s'mores. The wood products produced during the chainsaw training fueled the fire and the MCC AmeriCorps members served as critical volunteers during the event carnival.

The new partnership with the GSMW has led to the development of a merit badge

that is specific to Pompeys Pillar and a mentorship program for youth through MCC.

The innovative project provided meaningful work and service learning opportunities to young people, building on existing federal, state, and non-profit programs to strengthen the effort to create a 21st Century Conservation Service Corps (21CSC) for youth. This practical application of the S-212 course provided a unique opportunity to help manage healthy forests and improve visitor safety at one of Montana's most visited units of the National Landscape Conservation System. The training provided skills that will be used in future projects and careers while supporting what are sure to be strong ongoing partnerships with both the MCC and Girl Scouts.

*David Lefevre
Outdoor Recreation Planner
Montana/Dakotas State Office*

Veterans Green Corps Helps with Eagle Scout Project at Pompeys Pillar

The sounds of summer at Pompeys Pillar National Monument: the quiet ripple of the river, the sweet melody of songbirds, the gentle rustle of leaves in the breeze, the deafening roar of chainsaws.

Chainsaws?

They were loud, but only temporary -- and very worthwhile. The crew running the saws not only cleared overgrown brush from the picnic area, but were also engaged in a hands-on training program for veterans.

The Veterans Green Corps is a relatively new entity that works in partnership with the Montana Conservation Corps and under the umbrella of Americorps. Its goal is to help veterans develop skills for new careers while inspiring participants to become involved in their communities. The fact that they leave places better than they found them is a nice bonus—especially for the agencies that partner with them.

“Their work is preparing this site for what will be an Eagle Scout Project,” said Monument Manager Jeff Kitchens. “We are giving them the opportunity for training and they are helping us and the scouts out immensely. It is the perfect partnership.”

Veterans Green Corps crew members commit to working with their 2-4 person crew for 450 hours over several weeks. They are also expected to volunteer for at least 10 hours and attend at least one public meeting in the community where they are working. In exchange, they get marketable skills, a living stipend, and a grant to further their education.

“What you put into it is what you get out of it,” one leader told his newly formed crew. “If you get out of your comfort zone and put in the effort, you’ll be a better person.”

The partnership is the latest in a series of cooperative efforts between Pompeys Pillar National Monument and the MCC. Earlier this year, an MCC crew cleared out dead timber (see story on previ-



A member of the Veterans Green Corps clears out a picnic area adjacent to Pompeys Pillar National Monument as part of a hands-on training program for veterans. Photo by Ann Boucher

ous page), and crews will be helping the monument with both the Clark Days celebration and National Public Lands Day.

Eventually, the area where the brush was cleared will have its barbed wire fence replaced with posts and poles, the trees trimmed, and all trash and debris removed to make for a scenic and pleasant picnic stop along the highway directly adjacent to Pompeys Pillar.

“Opportunities like this exist if you’re flexible,” Kitchens stated. “The young scout who is working on the project is learning about partnering programs that exist to support public lands. The Veterans Green Corps and MCC are getting the opportunity to learn about how the BLM manages some of our National Landscape Conservation System units. All in all, projects like these are a win-win for everyone.”

*Ann Boucher
Printing Specialist
Montana State Office*

Students bring a touch of spring to the Missouri Breaks Interpretive Center

Spring has finally arrived here at the Missouri Breaks Interpretive Center. Signs of spring in Fort Benton include robins, cars topped with canoes, and school buses at the interpretive center. But there is one more sign of spring that really brings a breath of fresh air to the Missouri Breaks Interpretive Center and it is called Longhorn Day.

The annual Longhorn Day is when local high school students are placed in work crews and sent to locations around town to help with spring cleaning ahead of the summer visitor season. This marks the fourth year that the Interpretive Center has benefited.

Longhorn Day crews at the center have grown in size and significance just as the center has progressed. Originally acting more as a litter crew, the students’ duties have expanded with the maturing of the native plantings. Their service plays a vital role in beautifying the center each year and their importance continues to grow.

This year eleven students and one teacher arrived and were given a quick introduction about the Interpretive Center, its purpose, and design. From there, they were off to work, doing everything from weeding and raking to trimming some of the native grasses and plants that make up the landscaping design. While they worked, Center Director Connie Jacobs, Seasonal Park Ranger Kenneth LeCroy, and SCA intern Elinor Marboe explained the purpose for the plants in the landscape design and the value of “grazing back” the basin wild rye, bunch grasses, and the other native plants in the beds.

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The students persevered in spite of a brisk spring breeze. With their two hours of hard work, most of the landscaping for the front of the building is ready to grow. Their much appreciated touch of spring has set up the Missouri Breaks Interpretive Center for another beautiful summer season.

*Kenneth LeCroy
Seasonal Park Ranger
Missouri Breaks Interpretive Center*



Kenneth LeCroy (at left on knees), Seasonal Park Ranger, gives directions to some Longhorn Day students about which plants to pull while other students continue to clean up the bed near the Missouri Breaks Interpretive Center's entrance sign. Photo by Connie Jacobs

National Public Lands Day 2012

Volunteers Plant and Pull

The South Dakota Field Office observed National Public Lands Day in great style May 12 on the Fort Meade Area of Critical Environmental Concern.

Observing NPLD in the spring instead of on the traditional fall date didn't seem to matter to the 41 participants who showed up to plant and pull. Last year, the county road was realigned to repair a slump. The adjacent recontoured BLM hill was seeded with grass, but the county road supervisor thought it would be beneficial to plant some shrubs.

The BLM purchased native plants including currants, chokecherry, plum, buffalo berry, sumac, and plum to help stabilize, beautify, and make better habitat on the steep hill.



National Public Lands Day volunteers pose in front of the old fencing materials they removed from Fort Meade ACEC. Photo by Mitch Iverson

The day started with a welcome, a planting discussion and a safety briefing by Outdoor Recreation Planner Bitsy Stiller. Chuck Berdan, wildlife biologist and realty specialist, followed up with a short explanation on the wildlife benefits and native uses of the species selected to be planted.

Participants included members of the Back Country Horsemen; Meade County road crew (who also provided electronic warning signs); Boy Scouts; City of Sturgis maintenance crew (who also provided a porta-potty and water and juice); BLM employees (and their kids!); homeowners' association; and Women of War. The hard workers planted 125 individual plants in just under two hours.

The highlight of the day, as usual, was the lunch provided by the Public Lands Foundation. 'Walk-around tacos' with all the fixings, brownies, water and juice provided much needed sustenance.

After lunch, Rangeland Management Specialist Thad Berrett led the crew to the fence pulling project. About 1.5 miles of unneeded and damaged three-wire fence had to be taken down. Volunteers replaced their shovels with fencing pliers and by 3 p.m. had all the posts pulled and the wire rolled.

The amount of work and the fantastic attitudes shown by the volunteers was outstanding. The field office could have never done it alone.

*Bitsy Stiller
Outdoor Recreation Planner
South Dakota Field Office*

Denbury LLC hosts tour for BLM personnel

MILES CITY, Mont. -- BLM staff was treated to a field tour courtesy of Denbury Onshore LLC and viewed an example of the Enhanced Oil Recovery process in action at the Bell Creek Oil Field June 13.

Bell Creek Oil Field is situated in Powder River County about 40 miles southeast of Broadus.

The BLM group departed Miles City early in the morning and arrived at the Bell Creek office where Denbury representatives provided a presentation of the overall project and discussed their future plans for development in southeast Montana.

EOR, or tertiary oil recovery, uses processes to increase the recovery of oil resources. It involves the application of heat, chemicals, or gases to a petroleum reservoir to provide energy or alter reservoir fluid properties in order to recover those additional reserves previously untapped.

According to Miles City Field Office Natural Resource Specialist and tour facilitator Rick Lang, the injection of carbon dioxide (CO2) for EOR can increase recovery of oil by four to 15 percent over primary and secondary methods and in some cases over 20 percent of original oil in place.

According to Denbury, their long term plans include conducting EOR in in seven phases over the next seven to 10 years. Actual oil production is estimated to occur over the next 15 to 20 years.

Throughout these phases, most of the development will take place on fee surface and minerals, with approximately 23 percent of all wells associated with federal minerals or federal surface administered by the BLM.

Bell Creek Oil Field was discovered in 1967, when oil was found in commercial quantities in the lower

Cretaceous Muddy Sandstone formation which lies about 4,500 feet below the surface.

By 1968, about 300 wells had been drilled on 40-acre spacing with total production from the field of 50,000 barrels (42 gallons of oil/barrel) of oil per day. Original oil in the Muddy reservoir has been estimated to be about 350 million barrels. Through 2010, cumulative production from Bell Creek was 135,365,247 barrels of oil.

To date, oil production in Bell Creek field has utilized primary and secondary recovery methods.

Primary production methods use natural pressure or pumping to bring oil to the surface. As oil is produced, natural reservoir pressure declines over time, which results in decreased oil production. Typically, primary production results in a modest recovery of original-oil-in-place.

The most common type of secondary recovery is waterflooding, whereby water is injected into the producing formation to displace additional oil.

Denbury plans to reactivate most of the idle wells in the field, equipping them to become either producing oil wells, water injection wells, or CO2 injection wells.

In order to implement Phase 1 EOR operations, Denbury proposes to recomplete, re-drill, or drill new wells to be used for injection and recovery. The source of

the CO2 gas will be via the Greencore Pipeline -under construction- that will bring gas from the Lost Cabin gas plant located near Lysite, Wyo. The pipeline will transport up to 50 million cubic feet of gas per day. The anticipated operational date is this December.

For Phase I of the Bell Creek EOR project, approximately 21 five-spot patterns involving 68 injection and producing wells will be completed.

Oil production from the Phase 1 area is expected to last from 15 to 20 years with final reclamation to be completed two to three years after the wells are plugged and abandoned.

*Mark E. Jacobsen
Public Affairs Specialist
Eastern Montana/Dakotas District*



Denbury Onshore, LLC plans to initiate Enhanced Oil Recovery processes at the Bell Creek Oil Field, which has seen production beginning in 1968. Bell Creek Oil Field is situated in Powder River County about 40 miles southeast of Broadus. Photo by Rick Lang

BLM AVIATORS OBTAIN CRASH/RESCUE TRAINING FROM THE PROS



The Billings Logan International Airport Crash/Rescue and Fire Department instruct agency aviation staff on correct tool selection, use and care of aviation extraction equipment.

For fire personnel who utilize aviation, the annual readiness requirement of reviewing aircraft crash/rescue procedures can seem like just another box to check off on the “to-do” list. For the last few years, however, the Montana/Dakotas BLM fire aviation staff has enjoyed a whole new level of specialized training in this area.



Shelley Dunlap, Airbase Manager at Miles City, practices on an actual fuel fire during live fire training with hand held extinguishers in a controlled environment.

Aviation program managers have teamed up with folks who are subject matter experts to obtain a higher quality of hands-on training and awareness in aircraft crash/rescue operations. These experts are the Airport Fire and Crash/Rescue Department of the Billings Logan International Airport.

This year the Fire and Crash/Rescue group held two separate trainings for BLM agency and aircraft support vendors, one in late May and just recently in mid-June. Training included both classroom presentations and hands-on field exercises. Personnel were able to experience more realistic scenarios from utilizing the remote activated training stations the Airport Fire and Crash/Rescue group has developed on the west side of the airfield.

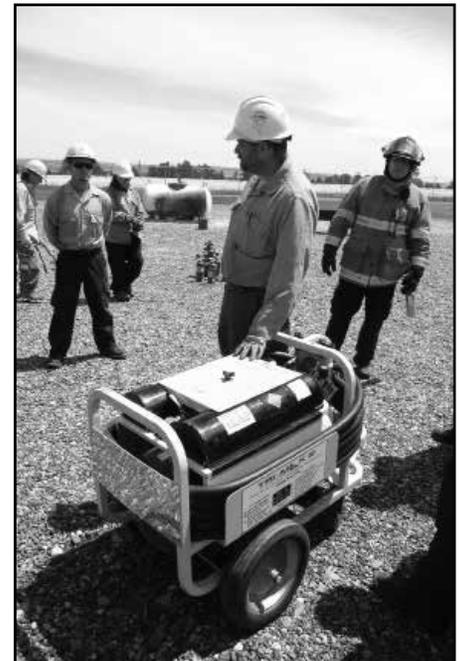
Topics included in the training were fixed wing and rotor wing aircraft makes, models, and hazardous components; fire extinguisher types, use, and maintenance; identification of high-risk aircraft components to consider when involved with aircraft fire and crash/rescue opera-

tions; and crash/rescue field tool identification, discussion on correct usage and structural/fuselage access points, as well as tool care and maintenance.

Participants included BLM fire helicopter crews, fire airbase staff, and contracted full service retardant vendor staff.

Thanks to the staff at the Billings Logan International Airport Fire and Crash/Rescue Department for being generous hosts and mentors in this ongoing cooperative interagency training.

*Story and photos by
Kevin Gappert
State Aviation Manager, Acting
Montana State Office*



Conan Donnelly, Helicopter Crew Supervisor from Miles City, instructs agency aviation staff on the Tri-Max AFFF foam extinguisher at the Billings Logan International Airport Crash/Rescue Training Facility.

Site Stewards Learn how to Preserve the Past

In an effort to preserve Montana's cultural heritage, the Dillon Field Office hosted a site stewardship workshop put on by the Montana Site Stewardship Program (MSU's Project Archaeology) on May 18-19.

The Montana Site Stewardship Program works to preserve all pre-contact and historic-era archaeological resources for the purposes of conservation, scientific study and future visitation. Twenty eight people from western Montana and Canada participated in the two day workshop consisting of eight hours of classroom instruction and eight hours of field orientation and training.

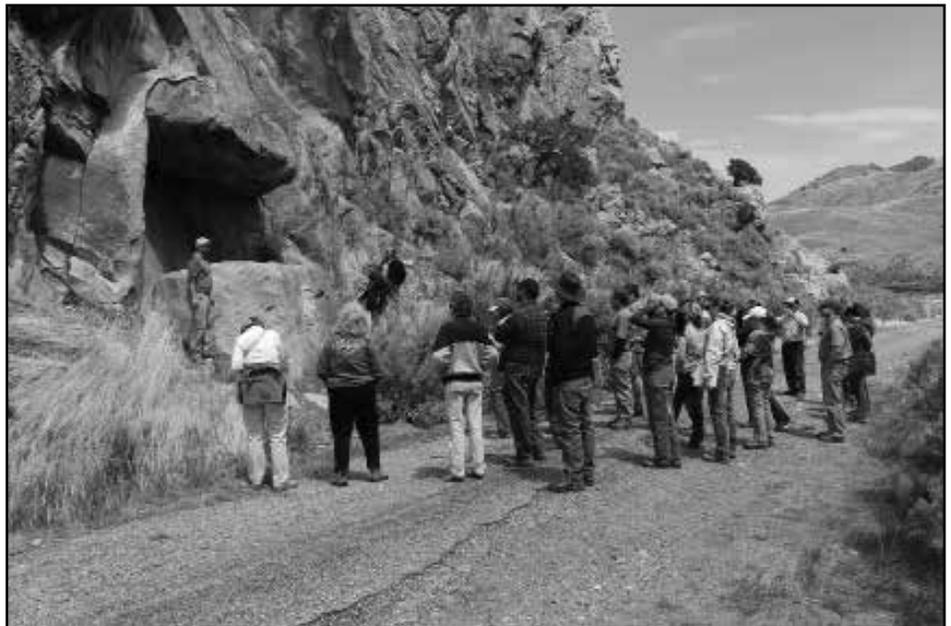
Potential site stewards familiarized themselves with federal and state preservation laws, proper site etiquette, site visit procedures, and field safety. Members of the Beaverhead-Deerlodge National Forest, Shoshone-Bannock Tribes, and BLM Dillon Field Office discussed and interpreted different aspects of cultural resource management and protection.

Hopefully we have added new volunteers who are committed to cultural resource protection and preservation activities that will reduce degradation of archaeological sites due to human, animal, and environmental impacts.

*Jason Strahl
Archaeologist
Dillon Field Office*



Jason Strahl describes restoration project of Henneberry Homestead as Stewardship group looks on." Photo by Shannon Gilbert



Jason Strahl discusses the importance of protection and preservation of cultural resources to stewardship group. Photo by Shannon Gilbert

Attention BLM Retirees

The BLM Retirees Association

Stay in touch! The BLM Retirees Association has a social gathering at 11:30 a.m. on the first Tuesday of even-numbered months at the Windmill (3429 TransTech Way) in Billings. If you would like to receive email or postcard notifications of these meetings, please contact Alice Slagowski at 406-259-9319 or asluggo@bresnan.net.

The Public Lands Foundation

The Public Lands Foundation (PLF) offers new retirees a free one-year membership. If you're interested, contact one of the Montana PLF representatives: David Mari at 406-538-7121 or dmari@earthlink.net; or Kemp Conn at 406-360-9252 or montanakconn@wildblue.net (please note "PLF" on the subject line).

What is the PLF? It works to keep America's public lands in public hands, managed professionally and sustainably for responsible common use and enjoyment.

The goals of the PLF are to:

- Keep lands managed by the BLM in public ownership and open to use by the public.
- Support multiple use management under the Federal Land Policy and Management Act.
- Encourage professionalism by BLM employees.
- Increase the public's understanding of and support for the proper management of the public lands.

Although PLF membership consists largely of retired BLMers, current employees and anyone interested in the goals of the organization are welcome to join.

Retired since March 2012:

John Robertson
Maintenance Worker
Central Montana District Office
Upper Missouri River Breaks NM

Margaret (Elaine) Raper
District Manager
Eastern Mont./Dakotas District

Charles A. Berdan
Realty Specialist
Eastern Mont./Dakotas District
South Dakota Field Office

Joan Trent
Sociologist
Montana State Office

Betty L. Thompson
Property Mgmt. Specialist
Montana State Office

Gerard A. Majerus
Planning & Env. Specialist
Central Montana District

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