

Snapshots

August 1, 2007

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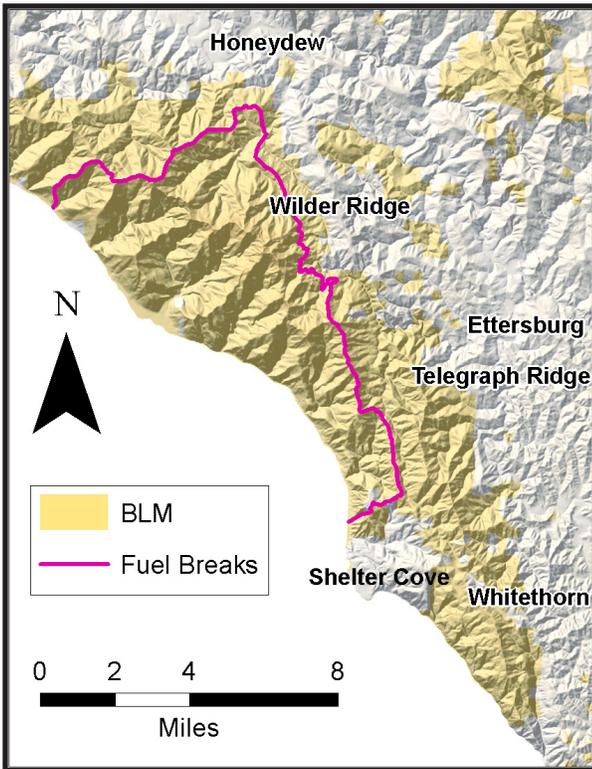


*Jennifer Smith, editor
Sheri Ascherfeld, layout and design*

California

BLM Completes the King Range Fuel Break System

Last fall the Arcata Field Office of the BLM completed the initial treatment for 24 miles of shaded fuel breaks within the King Range National Conservation Area, and is going back to the start for re-treatment.



Fourteen miles of fuel breaks connect to roads and natural barriers in the King Range National Conservation Area.

The ambitious plan to create a shaded fuel break system in the King Range began in 2000. Fuels along strategically located ridge tops and around high use areas were selectively thinned, chipped, piled, and burned by BLM, CAL FIRE, private contractors, and volunteers. Young trees were thinned out to fifteen feet apart and had their lower limbs removed up to six feet. All brush species cut to ground level. Work included 16 separate treatments over six years, resulting in significantly reduced fuel on approximately 340 acres. The fuel breaks average 150 feet in width, but varies according to topographical considerations.



Arcata, BLM, Outdoor Recreation Planner Bruce Cann burns slash piles within the King Range Fuel Break System in December, 2004.

The fuel break system folds well into the long-range goals for the King Range Wilderness, designated on October 17, 2006. A Wildland Fire Use program is planned for this area once the forest canopy has developed within and adjacent to the fuel breaks, shading out the re-sprouting brush species. Then small sized, low intensity broadcast burns can be utilized to widen the fuel breaks without damaging the existing trees. This should be possible in five to seven years according to Tim Jones, Fire Management Officer for the Arcata Field Office. "We want to be able to minimize impacts on adjacent landowners, user groups, and air quality, while allowing for the natural dynamics of fire in this ecosystem. In the King Range, fire is as natural as rain - just not as common."



BLM firefighters Leif Larson and Jeremy Craig thin the relentless understory vegetation and feed the chipper in October, 2006.



The utility of the King Range Fuel Break System was put to the test in early September, 2003, when thunderstorm activity resulted in 72 ignitions in southern Humboldt County. Firefighting resources were prioritized to wildfires that held an immediate threat to homes and private property, while the more remote fires in the area had to wait.

Two wildfires in the King Range NCA were placed in monitor status until resources were available. They burned together on September 4, developed into a crown fire, jumped a mid-slope road, and raced toward the ridgeline fuel break. Upon reaching the fuel break the fire dropped down from the canopy, significantly slowing its forward rate of spread.



Wildfire intensity decreases as it hits a fuel break in the King Range NCA, 09/04/2003.

When fire suppression resources became available the following day, the fire had burned only $\frac{1}{4}$ acre past the fuel break. Fire engine and hand crews were able to safely perform backfiring operations along the fuel break for approximately $\frac{3}{4}$ mile due to the decrease in fuels, halting the fire's westward spread. The wildfire was controlled on September 8, 2003 at 226 acres, two days before a significant wind event greatly increased the size of the other uncontained fires in the area.

With the recognized success of fuel breaks on federal land, local community groups have

actively pursued planning and developing fuel breaks on private land. Through grant funding provided by the BLM, the Lower Mattole Fire Safe Council has completed 16.6 miles of fuel breaks on private land that tie into the King Range Fuel Break System. This collaborative effort has developed into a community-planned, landscape-level fire defense strategy.

The BLM plans to re-treat 5.3 miles (65 acres) of the King Range Fuel Break System this year using heavy masticating equipment to grind brush. Trees have grown several feet in height, allowing crews to remove limbs up to ten feet above the ground using polesaws, without causing damage. Work is scheduled for late summer so as not to conflict with the nesting season of the northern spotted-owl.

Although wildfires on the east side of the King Range will always require aggressive fire suppression actions due to the significant wildland/urban interface, naturally occurring fires on the west slopes shall eventually be managed for resource benefit.

“Our goal is to get to the point where fire in the wilderness, under the right conditions, does not necessarily have to be treated as an emergency. We still have a lot of work ahead in order to reach that point, but we’re getting there,” said Jones. “Until the forest canopy matures, managing these fuel breaks is similar to painting the Golden Gate Bridge – finish at one end, start back up on the other.”



Eight foot tall brush re-sprouts within fuel break, previously cut in 2001. Crews will begin re-treatment here this summer.



Interagency Fuels Reduction Work in Antelope Valley Communities

The Bureau of Land Management (BLM) Bishop Field Office and the Humboldt – Toiyabe National Forest (HTNF) Bridgeport Ranger District reduced hazardous fuels on 745 acres of BLM and HTNF land adjacent to, and in the vicinity of, state and private land in the Antelope Valley, California. The project will help protect residents and their homes from wildland fire, and increase safety for firefighters working to suppress a fire threatening Topaz, Walker and Coleville communities. Our efforts were on the west side of the valley, behind the Topaz homes, north side of the USMC housing area, and east side of Little Antelope Valley off of Eastside Lane.



In response to the input from the Antelope Valley communities, the wood generated from this project was made available to the public as personal use firewood. Approximately 175 cords of wood was gathered for local residents to heat their homes during the winter.

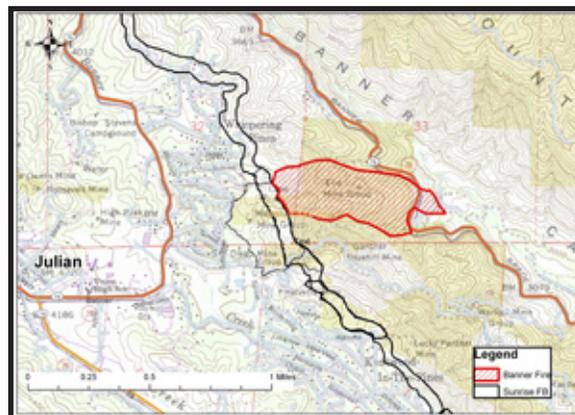
The fuels reduction project was comprised largely of pinyon pine, sage brush, bitterbrush, and herbaceous vegetation. To achieve hazardous fuels reduction, the BLM used a variety of mechanical treatments, singly or in combination, depending on the site-specific conditions. Typically, a 100 to 150 foot strip of vegetation immediately adjacent to private property is fully treated to create defensible space for firefighter safety, in the event of a wildland fire threatening homes and private property. Further away from private property, treatment is less intense and serves to create a more discontinuous fuels condition. 350 acres have been completed and up to 645 acres of BLM land and 100 acres of HTNF land will continue to be treated. Under the right conditions, this type of vegetation can produce a high intensity wildland fire, which is both difficult and dangerous to control. This area has a very high fire history and the project will help protect over 500 structures and homes.

For more information, contact Dale Johnson, Fuels Specialist for the BLM Bishop Field Office, at (760) 872-5055.

Homes Protected by Community Fuel Break

On Sunday, July 1, 2007, a fire in San Diego County was halted at a community fuel break, preventing loss of homes. The Banner Fire started just outside of Julian and was burning uphill towards the Whispering Pines community when residents were evacuated. Due to the strategic location of the Sunrise Fuel Break, aggressive air attack and many firefighters the fire was held at the fuel break and no homes were lost.

The Sunrise Fuel Break in Julian was originally constructed in the 1950s. In the past five years several



large fires have threatened homes and other private property in and near Julian. The community responded, seeking to hasten efforts towards restoration of the fuel break. Through the cooperative efforts of BLM, the CAL FIRE San Diego Unit, the Julian-Cuyamaca Fire Protection District (volunteer), and several Julian community Fire Safe Councils, portions of the project were completed in time to protect the Whispering Pines community.

The Sunrise Fuel Break was constructed on both public and private lands in a cooperative effort. BLM provided fuels crews, engines, dozers, and contracted masticators for the restoration. CAL FIRE was also able to provide engines, dozers and hand crews towards the completion of the project.

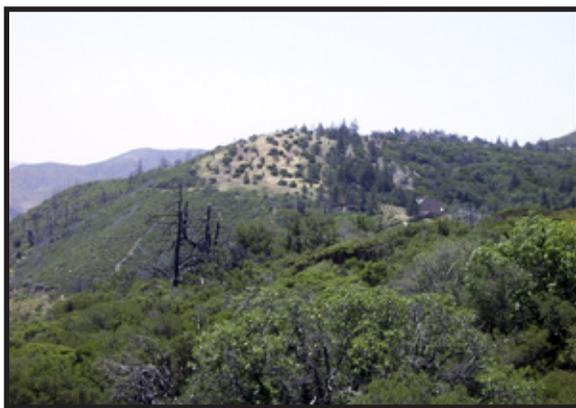
Other contributing factors to the successful containment of the blaze include Homeowner Defensible Space. The Fire Safe Council of Greater San Diego County allowed a standardized individual Homeowner Defensible Space. The BLM developed a Letter of Authorization for homeowners that allowed them to reduce combustible vegetation on BLM public lands within 100' of their homes. This area is commonly referred to as Wildland Urban Interface (WUI). County and State regulations have recently expanded the defensible space perimeter in WUI from 30' to 100' in response to previous loss of property.



The continued construction and on-going maintenance of this, and other fuel breaks, is a critical part of firefighting efforts to protect both private and public resources. Individual homeowner involvement is an integral part of protecting private property, as our natural resources exist in a fire adapted eco-system.

When local agencies initiate hazardous fuel reduction projects, homeowners can assist by completing their own fuel reduction on their property. Reduced fuels between community fuel breaks and homes will result in the successful protection of more homes in the future.

Contact: Jane Arteaga (916) 978-4436



Chainsaws in Action, the Coachella Valley Preserve Receives Attention

The Bureau of Land Management fire and fuels staff came together with the Center for Natural Lands Management (CNLM) staff to do much needed hazardous fuels reduction. Located in Thousand Palms, California, the Coachella Valley Preserve is a model of cooperation between federal, state, and private entities (that together own the lands that make up the preserve). Conservation efforts for managing sensitive natural areas are overseen by the Center for Natural Lands Management. The Coachella Valley was once dominated by nearly 100 square miles of sand dunes; today there is fewer than 5% of that habitat remaining in viable condition.

This preserve was designed to protect an endemic, threatened animal, the Coachella Valley fringe-toed lizard (*Uma inornata*). Found nowhere else in the world, this lizard is an indicator for a rich array of organisms specialized to live on sand dunes and for many of them, equally restricted and threatened in their distribution. In fact, desert sand dunes harbor one of the most species rich communities found in our southwestern deserts, with many of the dune systems including various unique species found only on those dunes.

While the preserve has been managing to eliminate exotic weeds and minimize the impacts of feral pets and people, the accumulation of palm fronds from the existing palm trees had created hazardous conditions for the visitor's center. The management of this preserve involves controlling these threats, monitoring the health of the native plant and animal populations we are striving to protect, and directing human access in a manner that allows enjoyment without degradation of this invaluable resource.

Palm Springs Fire Management staff pitched in with the CNLM staff to remove hazardous fuels that had accumulated around the 75 year-old visitor's center. The visitor's center was historically a café and bar for desert travelers through the area. The center sits amid a number of old palm trees. The build up of palm fronds under these trees posed a risk to the structure. Over the years a number of fires have burned various oases or parts of them. We have been fortunate that the visitor's center has been spared. The visitor's center had the hazardous fuels removed from the vicinity of the structure while minimizing the appearance of human intervention in a natural setting.



Reducing the fuel load in the understory.



The Coachella Valley Preserve Visitor's Center.



Map of the Coachella Valley Preserve.



One of the many loads of fuel that was removed from the site.



New Mexico

Thoughts on Thinning Project from Community Members

Glorieta Estates, an at-risk community located east of Santa Fe, applied for a fuel reduction grant through the 2006-7 Wildfire Risk Reduction Grant Program. This program is administered by the New Mexico Association of Counties with funding from the BLM's National Fire Plan Wildland Urban Interface Program. The community had developed a community wildfire protection plan in 2005 that identified thinning of the dense vegetation in and around the resident's homes and along major streets as a high priority project. Their successful application to the grant program equipped the community with funds to hire local contractors to work with interested landowners on a cost-share basis.

The 12-month grant period just concluded and the project was a success. The community treated more acres and contributed 50 percent more in cost-share than originally planned, resulting in a greatly reduced cost/acre than the original project proposal. And while these facts are impressive for a small at-risk community, their own words provide unique insights into the impact the thinning had on the community:

"When it came to cutting trees down, I was not much different from most people who enjoy living out in those trees. Taking them out was sort of akin to giving my grandma the ultimate ultimatum."

"...the first area thinned in this Glorieta project was along my road ...The crew did a great job."

"Actually, while the act of thinning can seem sometimes extreme, as I have walked thru my property after the job was completed, I have felt a sense of elation, arising probably from the fact that I suddenly am experiencing much more light, much more openness which gives a sense of freedom which I had not felt before on this property."

"...our risk of a catastrophic wildfire is a lot less. For the same weather conditions, a wildfire would not burn as intensely."

"...I feel that I am now getting reacquainted with the land and with the arroyo and with the environment around and about me."

"I look forward to the grasses and flowers which were not in great supply here due to the amount of shade

all of the trees were casting and which should now begin to increase with the sunlight entering thru the remaining foliage. And I feel better now, knowing that any fire which might accidentally occur will burn a lot less hot than it would have before we thinned this property. We need to all consider the fire potential as we each contemplate what might need doing on our own property. What affects one will affect all of us."

"I think that it would take more extreme conditions to realize the 'ridge-effect' fire scenario (the kind of thing that might destroy our whole neighborhood muy pronto)"

"...our effort attracted the attention of others. Specifically, it looks like we'll see thinning on the USFS lands next to us."

Although the NMAC-BLM grant period is complete, Glorieta Estates isn't finished with their fuel reduction efforts. In fact residents continue to work together and with cooperators to further reduce their risk of wildland fire and implement Firewise principles in their community.

Contact: Joy Esparsen, New Mexico Association of Counties, 505/880-8111.

Local Partnership Developed to Reduce Fire Risk to Historic Community

The town of Lincoln, NM was settled in 1849 and was known by the Spanish families that settled there as Las Placitas del Rio Bonito (little town on the pretty river). In 1869, the town was renamed Lincoln in honor of President Abraham Lincoln and was designated as the county seat for Lincoln County. Lincoln is most famous for the Lincoln County Wars of 1878 and William H. Bonney, better known as Billy the Kid.



The town of Lincoln lies in within the trees. Foreground and base of slopes are the sites of BLM thinning projects.





Residents learn about funds available to the community to reduce hazardous fuels on properties in and around Lincoln.

Today, Lincoln is a National Historic Landmark and State Monument, preserved as one of the last remaining non-commercialized 19th century Western towns. The town's picturesque location in the Rio Bonito valley, its original wood structures, and the build up of both native and non-native vegetation all contribute to its status as a community-at-high-risk of wildland fire.

In recognition of the risk to this historic district, the Bureau of Land Management (BLM) began working closely with the residences of Lincoln in 1999, several years before the National Fire Plan, to encourage this sort of collaboration. A memorandum of understanding between BLM and local land owners was developed that encouraged all parties to assist each other in the reduction wildland fuels. BLM has been especially active in the area, completing several fuel treatment projects, primarily on public lands around the community.

The new partnership between the local South Central Mountain Resource Conservation and Development Program (RC&D) and Lincoln's Volunteer Fire Department will continue these efforts and focus the next phase on private lands. The Roswell BLM Wildland Urban Interface Fuels program is initially funding the partnership through the New Mexico Association of Counties. The first public meeting for this partnership was held on June 28, 2007. The goals of the project are to reduce existing hazardous fuels in and around residential and historic structures located within and adjacent to the historic town and to educate local landowners about Firewise practices.

The project will be locally managed by the Lincoln Volunteer Fire department with oversight by the RC&D. The BLM will provide expertise and guidance in selecting treatment methods. The fuel reduction projects will include both hand and mechanical treatments using

local volunteers and contractors whenever possible. Approximately 60 acres are targeted initially, but if the project proves successful, additional funding will be sought to treat more acres.

The partnership will provide multiple benefits; reducing risk of wildfire, boosting the local economy, and empowering residents to help prevent catastrophic fire damage to their community. With these efforts, the historic town of Lincoln should continue to provide a peak into New Mexico's history for generations to come.

Contact: Allan Wyngaert, BLM Fuels Specialist, 505-627-0272

Nevada

Carson City Field Office Tackles Fuels Challenge in Alpine County, California

In recent years, the Bureau of Land Management's Carson City Field Office has acted in cooperation with Alpine County, California, and the U.S. Forest Service to complete several fuel reduction treatments in the County. Since 1990, more than 1,000 acres of public land in Alpine County have been treated using prescribed fire and mechanical treatments in strategic locations to reduce the severity of potential wildfires, as well as to improve timber stand health, vigor and resistance to fire, insects, and disease.

In 2007, BLM Carson City staff and contract crews completed:

- 225 acres of mechanical tree and shrub thinning.
- 20 acres of tree thinning, piling and pile prescribed fire.
- 15 acres of understory prescribed fire.



Rapidly developing wildland-urban interface near Markleeville.



These fuels treatments were designed to reduce wildfire damage potential and improve timber stand health, vigor, and resistance to fire, insects, and disease for nearby residences, the popular Turtle Rock and Indian Creek campgrounds, and the area's high-value natural resources.

Informal post-treatment contacts with Alpine County officials, the local wildland fire community and local home owners indicate a high degree of satisfaction with both the process and the resulting projects. Issues regarding visual impacts and the effects on fauna, flora and soils were successfully mitigated during project development and through close coordination with the contractor and BLM staff during treatment operations.

Alpine County has a history of large, intense wildfires and severe periodic crown fires in this fire-prone landscape are considered inevitable. In 1984 and 1985, 19,000 acres burned, and in 1986 and 1987, two more 6,000-acre fires destroyed 24 residences near the community of Woodfords.

The Carson City Field Office, Alpine County and local residents remain concerned that future intense wildland fires might cause substantial damage to public and private property.

The vegetation community on public lands in this area is typical of the eastern Sierra Nevada and consists of a diverse mix of Jeffrey pine, white fir, piñon pine, mountain mahogany, bitterbrush, manzanita, ceanothus, sagebrush, grasses and forbs. In some areas, however, the fuel load in this vegetation community is very high.

Winds in Alpine County can be strong and typically blow from the southwest or west. The combination of such heavy fuel loads and strong winds with substantial recreation use, frequent summer lightning events, rugged



Understory prescribed fire at the Indian Creek Recreation Area

terrain and limited access can be a potent mix, which increases the risk of large, intense wildfires developing under hot and windy weather conditions.

More than 93 percent of the land base in Alpine County is either state land or public land managed by the federal government. Consequently, the County is dependant on public lands to support economic growth and viability.

Public lands in Alpine County are recognized for their high recreational values. Approximately 19,000 acres of public land in Alpine County are administered by the BLM Carson City Field Office, including the popular 7,044-acre Indian Creek Recreation Area.

BLM management actions on public lands in Alpine County are based on the agency's desire to enhance and protect recreation, natural resource and private property.

For additional information please contact:

Tim Roide, Fuels Management Specialist, Carson City Field Office, (775) 885-6185; Keith Barker, Fire Ecologist, Carson City Field Office, (775) 885-6120; Steve Edgar, Fire Education Mitigation Specialist, Carson City Field Office, (775) 885-6197



Before (left) and after (right) photographs of the treatment site near the Turtle Rock Campground.



Defensible Space Demonstration Projects Target Three Nevada Communities

On the weekend of May 19-20, the Nevada Bureau of Land Management's Battle Mountain and Winnemucca Field Offices hosted three defensible space demonstration projects in the communities of Unionville, Austin and Kingston. These three projects were in scheduled in conjunction with the 2nd Annual Nevada Wildfire Awareness Week, May 19-25.

One home in each community was chosen by lottery for treatment. Each home was centrally located in their respective communities, so that treatment results could be easily seen by other residents. The properties chosen for the projects belonged to Jeanie Coons of Unionville, John and Leslie Adamson of Austin, and Charles and Ruth Rock of Kingston. Both Austin and Kingston are chapters within the Nevada Fire Safe Council.

Project collaborators included the Nevada Division of Forestry, the Nevada Fire Safe Council, the University of



Defensible space was greatly improved by this project.

Nevada Cooperative Extension's Living with Fire Program, and the Bureau of Land Management's Winnemucca and Battle Mountain Field Offices.

NDF supplied two hand crews and a wood chipper. Prior to the start of each demonstration project, the UNR Cooperative Extension gave a one-hour presentation on the Living with Fire Program's three defensible space zones. After the presentation the homeowner and the clean-up crew held a safety briefing and a project orientation meeting.

Crews used a variety of tools, including chainsaws, weed whackers, rakes, McLeods and Pulaskis. When the projects were completed all three homeowners expressed their appreciation for the work done, and a large number of their fellow residents signed up to have similar defensible space work done on their properties.



Photographs of the project site before (above) and after (below) treatment.



Oregon

Stewardship Contracting Successful in Oregon BLM's Burns District

In September 2005, the U.S. Bureau of Land Management (BLM) Burns District awarded its first stewardship contract, "Hopper," for a forest restoration project. After less than two years, the project is complete and of noteworthy success. Aside from being the first stewardship contract awarded by the Burns District, Hopper is significant for a number of other reasons. The two most





A section of the Hopper stewardship contract area before service work began.



Progress on the Hopper contract, showing a thinned unit and downed slash.

prevalent include its emphasis on restoration activities that reduce ladder fuels and create breaks in continuous tree canopy, resulting in healthier forests and a reduced risk of large-scale wildland fires, and its allowance for the costs of removal of small trees and slash and the cost of building fences or other service work to be exchanged for the merchantable trees on a value to value basis. The main goals are to reduce fuel loading and utilize previously unmarketable small diameter trees for things such as manufacturing wood pellets, power generation and lumber. Finding a use for all the wood fibers means the amount of wood burned in the forest is reduced, treatment costs to the taxpayer are less, and jobs are provided in the local community.

Service and construction work completed in the Hopper stewardship contract included 151 acres of precommercial thinning, 151 acres of slashed piled by machine, 8.4 miles of road maintenance (blading), 1 mile of old Forest Boundary fence removed and 1 mile of new Forest Boundary fence built with four gates. Approximately 314,000 board feet of saw logs was utilized at Malheur Lumber in John Day, Oregon while 1,225 green tons of biomass was distributed to Prairie Wood Products in Prairie City, Oregon, to generate electricity.

Other important benefits of the Hopper contract include employment of up to 10 employees from two different counties, both of which were at the top of the unemployment rate in Oregon at

the time, and minimal cost to taxpayers. BLM received \$31,508 for service and construction work, while the value of product removed totaled \$23,013, leaving the net cost of the contract at just under \$8,500 to taxpayers. Oregon BLM's Burns District plans to continue using stewardship contracting as a tool for forest and rangeland restoration, which contributes overall to implementation of the President's Healthy Forests Initiative and the Healthy Forest Restoration Act. The next contract, "Theimer," is scheduled for proposal this summer and includes 162 acres of precommercial thinning, 153 acres of juniper cutting, 315 acres of slash piling, 5.8 miles of road maintenance, 61,000 board feet of saw logs from commercial thinning on 162 acres, and 450 green tons of biomass.

Contact: Jon Reponen, OR/WA BLM Burns District, Natural Resource Specialist (Forestry) - (541) 573-4475



Machine piled slash shown in completed unit of the Hopper stewardship contract area.



Using Fire to Restore a Rare Pine-Oak Habitat on the Oregon Coast

When you think of public lands on the Oregon Coast, you probably think of towering firs and breaking waves. But, on the Southern Oregon Coast, the Coos Bay District is using fire to restore a rare mosaic of Oregon white oak and Jeffrey pine savannahs.

The 30 acre oak and pine savannah is located within the North Fork Hunter Creek Area of Critical Environmental Concern (ACEC) east of Gold Beach, Oregon. The ACEC contains the only example of this habitat within 10 miles of the Pacific Ocean. The habitat type is an anomaly attributed to the area's unique geological characteristics. The site is being managed to restore and enhance this rare ecosystem.

After decades of fire suppression, fir and other species are encroaching on the stands of Oregon white oaks and Jeffrey pines and overshadowing the rare grasses and shrubs underneath.

"Prior to active fire suppression, this ecosystem developed under frequent moderate-severity fires," said Paul Flanagan, Field Manager for the area. "Carefully burning and managing the area is the best way we know to restore this unique habitat."

Now the District's fire and ACEC manager's, with help from contractors and youth crews, are re-introducing



The BLM is burning piles of encroaching fir to restore this unique pine and oak savannah habitat.

fire into the system to clear out encroaching firs and revitalize the grass community.

Northwest Youth Crews, made up of teens from around the Pacific Northwest, cut and piled small firs over the past several summers. BLM and contract crews then burned the piles during the spring and fall seasons.

Over the next several years, the District plans to continue to pile and burn encroaching firs. Eventually, they will conduct broadcast burns on the site to maintain the open savannah characteristics.

"Ultimately, we want to re-establish a regime of frequent light burns at one to five year intervals," said Barry

Hogge, Fuels Management Specialist on the Coos Bay District. "We want to simulate the frequency and intensity of what was natural disturbance in this area."

While it will take several years and require ongoing use of prescribed fire, the Jeffrey pines and Oregon white oaks will again stand tall over a grassy meadow as the waves crash on the Pacific.

Contact: Paul Flanagan, Myrtlewood Field Manager at (541) 756-0100.



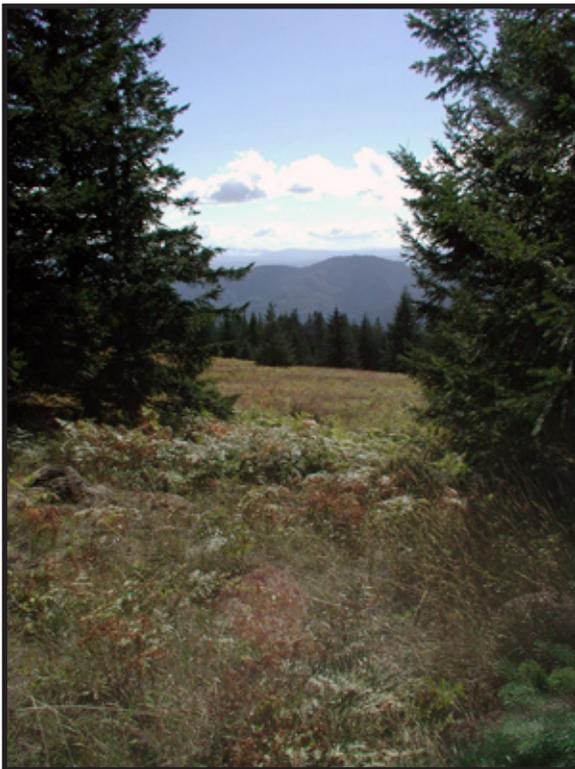
Members of a Northwest Youth Corps crew pile cut fir for burning later this fall.



Preparing for Prescribed Burning: Meadow Restoration Improves Fish Habitat

Meadow habitats in Oregon's Coast Range and the foothills of the Willamette Valley have dwindled in size and distribution from historic levels due to fire suppression, past grazing impacts, and fluctuating weather patterns. Successful restoration and maintenance of these diminished habitats brings together elements of ecosystem management, fuels treatment, and prescribed fire. Two projects, one accomplished in 2004, and one planned in 2007, by the Salem District BLM, combine these elements.

In 2002, employees of the Marys Peak Resource Area of the Salem District inventoried meadow habitat, using aerial photos, habitat maps and a 1969 research thesis on Coast Range meadows. They found that over the past several decades, habitat had decreased greatly as conifer trees established in the meadow edges. As the conifers grew and closed ranks, the meadow grasses and forbs were shaded out, converting this unique habitat to the more common closed conifer habitat abundant in the Coast Range. In 2003, an environmental assessment was completed to restore more than 200 acres of meadow sites by removing conifer, treating fuels, increasing native grasses and forbs, and by using prescribed burning.



View from the Bald Mountain summit.

One of the most outstanding meadow sites is found on Bald Mountain, named for the large grassy bald on its summit. Over the years, the meadow has shrunk to the point that the mountain is now better known as Monmouth Peak. Limby 'wolf' conifer trees, most of them younger than 50 years, shade the western edge of the meadow. Their large size and spreading crowns presented a major fuels problem if cut and left on site, yet they had little commercial value.

Marys Peak personnel saw an opportunity and approached adjacent land owners, Oregon Department of Fish and Wildlife and Boise Cascade Corporation, to develop a joint project to remove the unwanted trees and place them in the Luckiamute River as fish habitat. The Luckiamute River, an anadromous fishery, forms on the north flank of Monmouth Peak and curls around it as it flows east, through Boise Cascade lands, to the Willamette River. The large, limby trees could be removed intact from the meadow to make excellent in-stream debris for fish habitat.



"Wolfy" trees invaded the edges of the meadow.

They collaborated with a technical consultant, Boise Cascade Corporation and the Luckiamute Watershed Council, to apply for an Oregon Watershed Enhancement Board grant to fund helicopter flight time to remove and place the trees.

The \$80,000 grant was awarded to the Luckiamute Watershed Council; the Polk Soil and Water Conservation District acted as fiscal/contracting agent; the BLM felled the large trees, and a technical consultant worked with a helicopter logging company to remove and place about 175 large trees in the Luckiamute River on Boise Cascade lands. Multiple ecosystem management objectives have been met: The Watershed Council has improved conditions in the Luckiamute,



Boise Cascade has improved habitat on their lands, and the meadow on Monmouth Peak is restored nearly to its 1950's extent, with just a few limbs and trees left behind, "Bald Mountain" once again.

A second project has been developed that teams the Luckiamute Watershed Council with the Salem District. The Council was awarded a large grant for helicopter placement of fish habitat logs in Maxfield Creek, another tributary of the Luckiamute River. The dry upland meadows above Maxfield Creek are a legacy of the past fire regime and are excellent candidates for restoration through prescribed burn. To start, large trees that have encroached on the meadows will be removed where they can fulfill a habitat need as large woody debris in the stream channel. Other trees will be removed through a timber sale, and the 320 acre area is slated for prescribed broadcast burning in 2009 or 2010.

In Maxfield Creek meadows, Douglas-fir has encroached on meadows and overtopped Oregon white oak that grow there. Tree removal and prescribed fire will be used to restore this important habitat.



In Maxfield Creek meadows, Douglas-fir has encroached on meadows and overtopped Oregon white oak that grow there. Tree removal and prescribed fire will be used to restore this important habitat.



After tree felling and helicopter removal, formerly shaded areas are now returned to meadow habitat.



Helicopter equipped with a grapple flew 1-3 trees per turn from meadow to the placement sites on the Luckiamute.

