2011 accomplishment report

U.S. FOREST SERVICE REGION 2 BARK BEETLE INCIDENT
ARAPAHO-ROOSEVELT, WHITE RIVER & MEDICINE BOW-ROUTT NFs

www.fs.fed.us/r2/bark-beetle **2011**

Progress in cleaning up the bark beetle mess

Members of France5, France's public television network, videotape a portion of a documentary on climate change on the Arapaho-Roosevelt NF in July 2011.

The U.S. Forest Service's Rocky Mountain Region spent $32 million in 2011 to clean up, clear out, or burn dead trees left behind by the mountain pine beetle epidemic.

The epidemic has claimed billions of trees nationwide and in this region, and threatens the safety of people and infrastructure.

Given the extent of the outbreak, combined with limited funding, regional leadership has focused mitigation efforts on the Wildland-Urban Interface (WUI - near homes and communities), watersheds, important infrastructure (roads, trails, recreation sites), and other values like power lines and ski areas.

Of the $32 million identified for bark beetle mitigation efforts, the three forests most impacted received $20 million, while the remaining $12 million went to other forests within the region dealing with bark beetle infestations. In addition to bark beetle funding, much of the three main forests' base budgets also went towards bark beetle treatments.

Crews partnered with local electric companies, state departments of transportation, cities and counties, permittees, private landowners and many more to clean up and clear out beetle-killed trees. Thousands of acres were treated near homes, in recreation sites and along hundreds of miles of roads and trails.

Today, clean up efforts continue with a new, focused effort thanks in part to the Western Bark Beetle Strategy plan released by the Chief's Office in July 2011. The plan provides a "way ahead", focusing on human and infrastructure safety, as well as preparing for the recovery of our current forests and the resiliency of our future forests.

***FY 2011 Accomplishments**

WUI fuels	6,579 acres
Non-WUI fuels	6,187 acres
Roads	275 miles
Trails	162 miles
Recreation	210 sites

*Accomplishments include awarded contracts, project work in progress, and work completed on the ground.

Incident Management History

Although first recognized as an emerging issue in the 1990s, it was not until 2007 that the mountain pine beetle infestation reached epidemic proportions in north central Colorado and southern Wyoming. Because of its magnitude, regional leadership created a small incident management team (IMT) in conjunction with a steering group; and Incident Command System principles were applied to coordinate a cohesive response across the impacted forests. Through development of an action plan, the IMT identified over 31 critical multi-disciplinary tasks to help set a consistent management course for the epidemic.

In late 2009, the Regional Forester declared the epidemic a natural resource emergency. With the aid of a National Incident

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The Western Bark Beetle Strategy, released by the Chief's Office in July 2011, identifies how the U.S. Forest Service is responding to and will respond to the western bark beetle epidemic over the next five years. The extent of the epidemic requires prioritization of treatments. Those treatments are organized into three main goals: Human Safety, Recovery & Resiliency.

Note from the Incident Commander Cal Wettstein

Cal Wettstein
Incident Commander
Bark Beetle IMO
Rocky Mountain Region
U.S. Forest Service

We've come a long a way in the past decade, dealing with the effects of this bark beetle epidemic. From our initial futile attempts to stem the buildup, to the realization of the full magnitude of the effects.

We now understand we're going to be in a hazard mitigation mode long after the epidemic subsides. What we've experienced is an insect epidemic that's unprecedented in North American recorded history and appropriately, it has fostered an unprecedented response.

The collaboration and partnerships that have developed around this event include everyone from individual landowners, neighborhoods, towns, counties, conservation groups, private businesses, industries and numerous state and federal agencies; it's beyond anything most of us in the U.S. Forest Service have ever experienced.

Our success has been the result of hard work on the ground by forest and district employees and these strong partnerships. Interest and support from state and federal lawmakers and the U.S. Department of Agriculture have brought attention and supplemental funds to the epidemic.

The emergence of this epidemic with the downturn in the global economy and wood market, has added complexities to our efforts to accomplish critical hazard mitigation. It appears that the federal budget will continue to decline for several years. These crucial partnerships and collaboratives will be even more critical in focusing priority work on the ground.

While the infestation winds down in Colorado and Wyoming, the grueling work of hazard tree and fuels mitigation will continue for several more years. As we transition from our focus on safety to restoration, we look forward to the next phase of managing these lands, as well as your continued interest and support.

USFS responds quickly to woman hit by hazard tree

U.S. Forest Service employees helped rescue a hiker hit by a dead tree in the Arapaho-Roosevelt National Forests' Sulphur Ranger District.

The 65 year-old woman was hiking with a friend along the Knight Ridge Trail near Granby in June 2011 when she heard a crack and turned to find a beetle-killed tree, 9 inches in diameter, falling towards her. She tried to move but the tree had fallen on her leg, breaking it.

The fellow hiker went for help and the woman was rescued quickly. She was very complimentary of the U.S. Forest Service's response. Arapaho National Recreation Area Manager Dan Matthews, crew leader Lance Perrin and boat operator John Saye were responsible for the timely rescue.

Good snowpack and prime smoke dispersal conditions have enabled fire crews on the Sulphur Ranger District to burn more than 1,000 slash piles on some 100 acres in the past fall.

Partnerships pay off on the Medicine Bow NF

In the midst of the ongoing mountain pine beetle epidemic, the Wyoming Department of Transportation (WYDOT) and Carbon Power & Light (CP&L) successfully partnered with the Medicine Bow National Forest to clear dead and dying pine trees that threatened critical infrastructure.

- The Laramie and Brush Creek-Hayden Ranger Districts have worked with CP&L in completing the planning, contract preparation and implementation of hazard tree removal from approximately 34 miles of threatened power line. To date, some 70 percent of this work has been completed by CP&L's logging contractor.
- The Laramie and Brush Creek-Hayden Ranger Districts have worked with the WYDOT in planning and contract preparation for hazard tree removal within threatened sections of WY State Highways 70 (approx. 5 miles), 130 (approx. 9 miles on the Brush Creek side) and 230 (approx. 11 miles on the Laramie side). Implementation within the Highway 230 corridor by WYDOT's logging contractor began this winter.

Success stories from the theater

Logging operations wrap up on the Frisco Peninsula

The Dillon Ranger District completed a 500-acre project to clear thousands of dead trees on the Frisco peninsula killed by the mountain pine beetle.

The project is part of an ongoing effort by the U.S. Forest Service (USFS) to reduce the danger of falling trees and wildfire on the peninsula and to jumpstart the future forest.

More than 90 percent of the peninsula's trees, primarily lodgepole pine, were killed by beetles in the last decade. Taking into account the high recreation use in the area, USFS officials decided the best option was to remove the trees primarily with large clear cuts. Today the land is open, with patches of trees covered in tons of slash – and for good reason.

"I realize that a lot of these trees and the broken tops aren't very attractive scenically," said Brett Crary, USFS silviculturist, "but they're really important for stabilizing soil and nutrient cycling." Crary went on to say that the slash, along with the cleared area that allows sunshine in, is critical to creating new growth. "It does look bad at times, but it's a very short-term impact," said Crary.

This project and others like it on the Dillon Ranger District and around the western United States are part of a USFS strategy to restore millions of acres of national forest lands impacted by the bark beetle.

"(The entire epidemic) is the biggest insect epidemic in recorded American history so far. It's an eye-opener for a lot of us," said Cal Wettstein, incident commander of the Rocky Mountain Region's Bark Beetle IMO.

The peninsula is expected to see a jump in activity next month when the Frisco Nordic Center opens for business.

Photo of the Frisco Peninsula logging project, the trees left behind and the preparation being done for the health of the future forest.

Projects focus on forest health

A partnership between the White River National Forest and the Forest Health Task Force, a program of the Colorado nonprofit trust Greenlands Reserve, recently completed 60 acres of forest health treatments in a beetle-killed area in the Straight Creek Watershed, the primary water source for nearby communities.

The work was done to protect the creek, located near the Eisenhower Tunnel, from the effects of wildfire and to protect water quality. The project included bringing in crews from Xcel Energy, the Town of Dillon, Dillon Valley Water Authority, Colorado Department of Transportation and Summit County.

Greenlands Reserve is one of nine contractors selected by the USFS to perform treatments in the area over the next five years as part of a stewardship contract.

The Greenlands Reserve was also recently awarded a task order to complete a community protection zone treatment of 34 acres adjacent to the Town of Breckenridge.

"THE PROJECT INCLUDED BRINGING IN CREWS FROM XCEL ENERGY, THE TOWN OF DILLON, DILLON VALLEY WATER AUTHORITY, CDOT AND SUMMIT COUNTY."

Important partnership with Mountain Parks Electric

In September 2010, personnel on the Sulphur Ranger District of the Arapaho and Roosevelt National Forests facilitated a quick response to a request from Mountain Parks Electric Inc. (MPEI) to clear hazard trees along a power line near the towns of Winter Park and Fraser. Community concern escalated after a number of power outages were caused by trees that hit lines during that year's particularly windy spring. The District Range authorized MPEI to clear hazard trees outside of the permitted right-of-way along four miles of line.

In August 2011, the Arapaho -Roosevelt National Forests, with significant input from Sulphur Ranger District and MPEI, executed a 15-year special use permit resulting from the Emergency Power Line Clearing Environmental Assessment, Decision Notice and FONSI. This was the

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Hal Gibbs and Kevin McLaughlin inspect power line work done by MPEI on the Sulphur Ranger District. Crews completed the work in October 2011.

A helicopter logs wood at the Winter Park Ski Resort before the mountain opens for the 2011 ski season. The project was a joint effort between the U.S. Forest Service and Winter Park Resorts, focusing on safety for visitors.

Winter Park Resort resorts to helicopter logging

The mountain pine beetle epidemic has created a number of challenges for the National Forest's ski area permit holders, including the need to remove dead trees that have become dangerous to ski area visitors and threaten infrastructure like ski lifts.

Winter Park Resort is working as a partner with the U.S. Forest Service to manage these hazard trees and reduce fuels while improving watersheds and jump-starting regeneration. This summer, the ski area used a helicopter logging contractor to treat nearly 80 acres of steep terrain. The units are part of the Cooper Creek Settlement Sale, which includes more than 200 acres of beetle impacted terrain. Over the past few years, the ski area treated as many acres as possible with ground-based equipment.

Helicopter logging is an effective tool where slopes are too steep for ground-based equipment to operate safely and in a manner that minimizes resource impacts. In addition, helicopter logging minimizes soil erosion and sedimentation to creeks and wetlands.

Winter Park Resort, along with the Colorado Forest Restoration Pilot Grant Program, Town of Winter Park, Winter Park Water & Sanitation District and Grand County #1 Sanitation District helped fund the project.

Photos from Larry Sandoval, Medicine Bow-Routt NFs

A helicopter helps logging crews on the ground treat the Steamboat Springs Resort. The project was a proactive effort on the resort's part to make the area safer for visitors.

Steamboat Springs helicopter helps treat trees

The Steamboat Springs Ski Area, recognizing their responsibility to make their area safe for visitors, took a proactive approach by hiring a local logger to cut down trees killed by the mountain pine beetle in October.

The resort worked with the Hahns Peak Ranger District in planning the project. The ski area paid for the contract removal of timber because they are a permittee on public land.

A helicopter contractor from Montana was paired up with the local loggers to assist with the clean up efforts.

A delimber operator strips, cuts and stacks trees on the Sulphur Ranger District in September 2011. Removing dense fuels reduces wildfire threats along the Wildland Urban Interface.

Beetle-killed trees burn to clean up future fuels

Residents and visitors to Steamboat Springs saw several fires on the Routt National Forest near the ski resort in October 2011. Fire crews burned several piles of dead, beetle-killed wood on the Hahns Peak/Bears Ears Ranger District and Buffalo Pass Road (Forest Road 60), as well as several other locations on the forest. These piles were created from thinning treatments and are burned in an effort to reduce hazardous fuels.

Prescribed burns are highly coordinated events and involve long-term planning efforts. Weather conditions are closely monitored and burns are only initiated if conditions are within established parameters for safe, effective fires.

Photo from Reghan Cloudman, Arapaho-Roosevelt NF

This slash pile of beetle-killed trees was burned in February 2010 as part of Estes Valley Fuels Reduction Project on the Canyon Lakes Ranger District. Many homeowners in the area have been doing their own mitigation work and most are supportive of WUI fuels reduction work by the U.S. Forest Service.

White River NF uses explosives to take down dead trees

Photos from Jim McBreen, White River National Forest

The photos to the left show trees wired with explosives as part of a bark beetle mitigation project on the White River NF in Sept. 2011. The photo above is one of the many explosions that took down 661 hazard trees.

Blasting, a useful tool in the mitigation toolbox

Explosives successfully dropped hundreds of beetle-killed trees near a road on the White River's Eagle/Holy Cross Ranger District in September 2011.

A pre-work activity review of the project site showed it was too steep to log with machinery or chainsaws. Jim McBreen, Lead Blaster for the White River National Forest, coordinated a blasting team of district employees combined with a 4-person crew from the Idaho Panhandle NF. Sara Baughman was the bark beetle project coordinator. During seven days of blasting, 661 hazard trees were safely removed along the Frost Creek and Hardscrabble road systems. The largest single blast removed 75 trees. The most productive single day total was 143 trees. There was not a single misfire during this period.

Epidemic leads to employee and visitor safety changes

The mountain pine beetle epidemic not only brought changes to the landscape but necessitated behavioral changes from those who work in, recreate, or simply visit the affected forests. Hazards have always existed, but changes have increased forest susceptibility to: wildfire and elevated fire behavior, forest disease and pathogens, as well as loss of trees' wind throw resistance. These hazards created the need for new tools to increase awareness of the changing conditions as well as tools to assess one's exposure to risk.

In late 2009, steps were taken to develop awareness guidelines for firefighters working in pine beetle mortality areas. It was obvious that the risk of catastrophic fire declined as needles dropped from dead trees. But the risk of serious injury as a result of wind thrown trees increased. A set of basic work guidelines and a training video evolved into a 2011 Safety and Risk Management Resource Handbook for all to use. The use of these guidelines was set into motion with full support of agency leadership at all levels. These guidelines folded together existing health and safety work standards, new standards focused on communication and emergency response, as well as the introduction of risk assessment and management tools. Equally important was the need to improve the risk awareness of external forest users, which was accomplished through personal contacts, website links, signing, and public speaking presentations.

Seven Near-Miss reports pertinent to bark beetle operations were filed within the SHIPS database for FY11. With an improved sense of personal safety awareness and risk mitigation, there were no reportable serious injuries. Much of this is credited to field leadership involvement in evaluating risks associated with the work to be performed.

"IT WAS CRITICAL TO INCREASE AWARENESS OF THE GROWING HAZARDS AS WELL AS DEVELOP TOOLS TO ASSESS ONE'S EXPOSURE TO RISK."

A harvester and its operator work to clean up an area on the White River National Forest. This particular effort is part of a fuels reduction project in the Keystone Gulch area, Dillon Ranger District.

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Management Organization (NIMO), a "theater of operations" approach was agreed upon for the epidemic and the initial IMT staffing was expanded to an Incident Management Organization (IMO). Over the past two years the bark beetle IMO, in conjunction with a number of task groups, has provided leadership and development of strategic plans, annual operating plans, safety and risk management tools for employees as well as forest users, plus the coordination and accountability of work planning and project accomplishment. Employee and forest user safety remains the primary focus of the region's strategy to addressing the multi-faceted resource challenges on over 4.6 million acres of bark beetle impacted lands.

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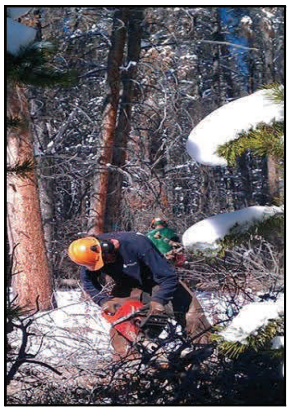
first permit issued under that Decision. The Phase One operating plan authorized power line hazard tree clearing for 11 segments on the Sulphur Ranger District, totaling approximately 4.4 miles. MPEI completed this work in October 2011.

This winter, the forest, with input from the ranger district, will evaluate MPEI's 2012 request. The 2012 request includes one segment on the district that is approximately 6.8 miles in length. An operating plan for the 2012 work will be developed, allowing MPEI to continue clearing operations.



A local contractor removes dying trees along the Peaks Trail in Summit County. Small businesses, like the contractor on this project, say they've benefited greatly from the money the federal government's spent to keep the public safer and ensure open access to public lands.

Tigiwon Road reopens after mitigation efforts end

On Sunday, October 16, Tigiwon Road (NFSR 707), located on the Eagle/Holy Cross Ranger District on the White River National Forest, reopened to public use. The entry, providing access to the Tigiwon Lodge, Cross Creek trailhead, Half Moon trailhead and the Holy Cross Wilderness Area, had been closed much of the summer to facilitate logging operations associated with bark beetle mitigation and hazard-tree removal.

According to District Ranger Dave Neely, "The Tigiwon timber sale is an example of our nation's forest at work and our efforts to enhance resiliency in our ecosystems. The project will help kick start the forest regeneration process in the wake of extensive pine beetle infestation while simultaneously supporting the struggling timber industry in western Colorado."

Neely continued, "Added benefits include reduced fuels available for wildfire and enhanced habitat for deer, elk and other wildlife. It's important to understand that due to the extent of mortality in these lodgepole forests, much of the timber would have naturally fallen in the next several years, creating public safety and potential wildfire management issues. Folks will be initially surprised by the contrast, but give the land a few years and the rebirth of those stands will be remarkable, with a diverse and resilient future forest as a result."

Neely added, "While we still have some work to do, we feel the work has progressed far enough for the public to safely use the road again."