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UNITED STATES DEPARTMENT OF AGRICULTURE**

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**BEFORE THE
SENATE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON INTERIOR, ENVIRONMENT AND RELATED AGENCIES
CONCERNING IMPACTS OF THE BARK BEETLE INFESTATION ON FOREST HEALTH, FIRE,
AND RECREATION ON COLORADO'S NATIONAL FORESTS**

**EAGLE, COLORADO
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Thank you for inviting me here today to discuss the impacts of bark beetles on Colorado's national forests. I am accompanied by Regional Forester Rick Cables, Rocky Mountain Research Station Research Entomologist Barbara Bentz, Bark Beetle Incident Commander Clint Kyhl, Arapaho-Roosevelt National Forest Supervisor Glenn Casamassa, and White River National Forest Acting Deputy Supervisor Cal Wettstein.

Overview

As is clearly evident in the mountains surrounding Eagle, the mountain pine beetle is having wide-spread effects on the forests of Colorado. We first observed an increase in mountain pine beetle activity in northern Colorado in 1997. This coincided with a number of factors, including drought stress and warmer than normal winter temperatures. Mountain pine beetle populations grew dramatically across a landscape of primarily mature, dense lodgepole pine forests.

The aerial survey of 2003 showed that mountain pine beetles had infested 227,000 acres. The 2007 aerial survey revealed that the mountain pine beetle epidemic had infested 1.1 million acres, an increase of 500,000 acres in just one year. This represents a mountain pine beetle infestation of about 50% of the available host trees in Colorado. Overall, 1.5 million acres of forest land in Colorado has been infested by all types of bark beetles.

Insect epidemics resulting in acreages of dead trees are natural, cyclic events. However, what we see today in northern Colorado is beyond the scope of recent outbreaks and compromises the safety of people. The primary difference between previous beetle outbreaks and the current epidemic is people now live, work and recreate throughout the

lodgepole pine ecosystem. In addition, the forest products industry infrastructure needed to help address the potential public health and safety impacts is nearly nonexistent within Colorado. These profound differences, along with the scale of the epidemic, requires approaches to reduce the effects of the beetle epidemic on people while ensuring the forest that replaces these dying trees is diverse and resilient to change across the landscape.

Mountain Pine Beetle Ecology

Mountain pine beetles have long been a regular force of change in western North American forest ecosystems. The mountain pine beetle occupies a diverse array of habitats, attacking and reproducing in many pine species throughout the western United States and Canada.

Mountain pine beetle has affected more than 3.5 million acres in Colorado during the past 10 years, including forests dominated by lodgepole pine, limber pine and ponderosa pine. Several of the current outbreaks are the largest and most severe in recorded history. A panel of experts at a recent symposium focused on “Bark Beetle Outbreaks in Western North America: Causes and Consequences” suggest that two major factors appear to be driving the current outbreaks: 1) forest history and host susceptibility, and; 2) changing climatic conditions, especially elevated temperatures and drought.

Over the past century, natural disturbances such as stand-replacing crown fires and blowdowns and human activities such as wildfire suppression and vegetation management have contributed to the existence of large areas of trees that are very similar in size and age. Thus, in many areas there is an absence of a mosaic of stand ages and types which helps to slow an epidemic. The size and age of these old trees make them an ideal food source for the bark beetles. Mild winters have allowed the bark beetle larva to survive the winter and warm temperatures have extended their growing season.

These factors have contributed to the spread of the bark beetle epidemic over the last few years. Because of the extent of the outbreak, we soon realized that we could not stop the beetles or protect the forests from infestation, so we changed our focus from the forest to the people in it. In balancing the efficacy and efficiency of treatments here with other places in the Nation impacted by pests and disease, we are now focused on mitigating the effects of the epidemic on the things that people value, from their homes and livelihoods to their drinking water and recreational pursuits.

The Wildland/Urban Interface

More and more people are moving into homes in the mountains. Over the last several decades, thousands of people in Colorado have built homes in the rural and backcountry areas adjoining national forest lands – what we now call the wildland/urban interface.

One consequence of the extensive tree mortality is increased risk of catastrophic wildfires. The threat to life and property is of deep concern to us, and we’re working

with communities and other partners to reduce fuels and promote concepts that help protect property such as the FireWise program. The top priority areas for treatment are in the wildland/urban interface, where wildfires would be devastating to communities, resorts and infrastructure.

Should fires occur, watersheds would also be threatened. Wildfires can cause severe erosion, dump sediment in streams and reservoirs, and damage water quality. This directly affects the availability of clean drinking water for the two million people in the Denver metropolitan area, as well as another 750,000 residents of northern Colorado cities.

An even more immediate public health and safety concern is the hazard of falling trees. The roots of dead lodgepole pine trees start to decay within three to five years, and eventually the trees fall down. Many trees in northern Colorado and southeastern Wyoming are ready to fall on campsites, picnic areas, roads, trails, power lines, microwave tower sites, water developments and improvements, ski areas, cabins, administrative sites, and livestock fences.

For example, about 20 percent or 911 miles of the trail corridors on the Medicine Bow-Routt, White River and Arapaho-Roosevelt National Forests contain dead trees ready to fall. In addition, 40 percent or 3,467 miles of the road corridors on these forests are threatened by dead trees. Nineteen percent of the recreation sites contain significant numbers of hazard trees. Recently, these three national forests closed or had to delay opening 38 recreation sites until hazard trees are removed.

Dead trees also threaten 100 miles of transmission lines, five microwave sites, and numerous miles of water ditches, diversion structures, and water storage reservoirs. Ski areas are dealing with thousands of dead trees. We have been working with them to address safety concerns by removing dead trees that could fall on lifts, power lines, structures, and trails; treating high-value trees; and replanting some areas.

Partnerships and Collaboration

The scope of the epidemic in northern Colorado is dramatic. The effects are being felt directly on the White River, Arapaho-Roosevelt, and Medicine Bow-Routt National Forests. No one agency or community could begin to address it alone. As a result, many stakeholders, including the three national forests, have been forming collaborative groups.

In 2005, as the infestation spread, people representing many interests formed the Colorado Bark Beetle Cooperative. The Cooperative, led by the Colorado State Forest Service, is comprised of federal, state and local agencies, counties and communities, timber industry representatives, and environmental organizations. While five counties initially joined the Cooperative, this has since expanded to ten affected counties.

The purpose of the Cooperative is to develop and implement a comprehensive strategy to address ongoing and projected forest mortality and the resulting impacts. Assessments were conducted that identified key values at risk: communities that face increased wildfire threat; ski areas that are losing aesthetic and practical values provided by tree cover; developed recreation areas, where hazard trees threaten public safety; utility and transportation corridors that can suffer damage and interruption of service from fires and falling dead trees; watersheds that can suffer damage from erosion and stream sedimentation; habitat that is damaged by loss of trees that support many species; and commercial timber harvest.

Recently, the Cooperative has expanded to include nonprofit organizations, recreational interests, wildlife groups, scientists, and more state and federal agencies. A Core Team composed of elected officials, state and federal agency leaders, and representatives of environmental, timber industry, and utility groups, works to implement the strategy developed by the Cooperative.

The Core Team recently updated the objectives of the Cooperative, and will convene here in Eagle on May 20 to further define actions to implement the objectives: 1) protect homes and communities; 2) protect watersheds and water supplies; 3) protect infrastructure, and; 4) develop communities' resilience to adapt to disturbance-driven ecosystems. To date, this group has developed programs to encourage cooperative fuel reduction projects; present workshops on topics such as FireWise practices and community wildfire protection plans; encourage emergency management planning; and identify high priority treatment areas and projects.

The Colorado Forest Health Advisory Council is also quite concerned with the mountain pine beetle. Regional Forester Rick Cables serves on the Council, along with the Colorado State Forester, the Colorado State Director of the Bureau of Land Management, heads of state agencies, and a number of key stakeholders. The Council was established by Governor Bill Ritter this year to identify short-term actions to improve forest health, and develop a long-term strategy to sustain the state's forests.

A legislative proposal by the Administration, the Healthy Forests Partnership Act, would greatly improve our ability to collaborate with partners to improve forest health. The proposal would facilitate partnerships between Federal, State, Tribal and local governments to perform scientifically based forest, rangeland and watershed restoration projects or wildland fire risk reduction projects on Federal lands. It would also promote a reduction of risks on adjacent non-Federal lands and promote investment in local industry capacity and public infrastructure. A copy of the proposed legislation is attached.

Forest Service Action

Responding to the bark beetle infestation is a top priority for the Rocky Mountain Region. In 2004, the region developed an accelerated watershed and vegetation restoration plan that is used to identify funding opportunities within the region to accelerate treatments in high risk watersheds and wildland/urban interface areas.

In early 2007, the White River, Arapaho-Roosevelt, Medicine Bow-Routt National Forests and the Rocky Mountain Regional Office chartered the Bark Beetle Incident Management Team to increase communications, coordination, and efficiencies within the agency, with the public, and with our partners. The team worked with partners to develop a six-year implementation plan, with over 240 projects planned that will treat more than 100,000 acres through 2012.

The team is helping these three forests accomplish on-the-ground activities that will mitigate impacts from the bark beetle through: 1) vegetation treatments including timber salvage and fuel reduction projects near communities and critical watersheds; 2) reducing the hazard of falling trees to recreation and public infrastructure; and; 3) ensuring that the forest which grows up to replace these dead and dying lodgepole pine forests – the “next forest” – is composed of diverse species of varying ages to increase forest health and resiliency.

In FY 2007, the Region treated nearly 15,000 acres, including over 9,000 acres of timber harvest, almost 14,000 acres of fuels treatment, over 1,000 acres of forest health treatment, and 130 acres of hazard tree reduction along roads and trails, and in recreation areas. This represents more than a doubling of accomplishments from FY 2006.

This spring, the team is focusing on addressing the critical public safety hazard of dead falling trees. The team is also working to streamline processes for timber sale preparation and other activities to treat more acres and is pursuing cost-saving options including the use of prison crews, youth crews, and hotshot crews between fire assignments to fall hazard trees and pile slash. We are mobilizing resources from other forests and regions to assist in these efforts.

The region is using Healthy Forest Restoration Act authorities to expedite environmental analysis with the help of local collaborative groups. The forests plan to increase treatments using this authority in 2008. The region is also using the Colorado Good Neighbor Authority with the state to expedite work in the wildland/urban interface, including timber sales, fuel reduction, treatment and salvage of beetle-infested trees, and thinning. In Grand County, the Colorado State Forest Service is conducting projects under a statewide agreement for which the US Forest Service is providing funding through reimbursement.

Conclusion

As you can see, the Forest Service, Colorado State Forest Service, Bureau of Land Management, and other partners are working to reduce the impact of the mountain pine beetle epidemic on people by reducing fire hazards near communities, identifying and treating areas with hazardous trees that pose a public health and safety risk, and working to increase the health and resiliency of the next forest.

This concludes my remarks. I would be happy to answer any questions you may have.