

# THE FRONT RANGE FUELS TREATMENT PARTNERSHIP

COLORADO STATE FOREST SERVICE • NATIONAL PARK SERVICE • USDA FOREST SERVICE

## 2008 ANNUAL REPORT



## **SUMMARY OF ACCOMPLISHMENTS**

The Front Range Fuels Treatment Partnership (FRFTP) has evolved into a dynamic partnership; from the Roundtable, to treatments on the ground, to the people who play a major role in making things happen in science, in communities and in politics. In 2008, Partnership agencies treated 31,023 acres, bringing our five-year total to 148,315 acres. We also continued working with communities to create and implement Community Wildfire Protection Plans and, through the Roundtable, continued to engage more people in our forest health efforts.

In addition to reducing wildland fire risk through sustained fuels treatment, we continue to face an increasing mountain pine beetle (MPB) issue on the Front Range. The 2008 forest health aerial survey results revealed that about 400,000 new acres were affected this year. Since the outbreak began in 1996, the beetle has infested more than 1.9 million forested acres in Colorado, and continues to spread to Front Range counties.

As Colorado's Front Range wildland-urban interface (WUI) continues to grow, more people, homes, communities, infrastructure, watersheds, and other natural resources in these areas are at significant risk from catastrophic wildfires.

# PROJECT ACCOMPLISHMENTS: FIVE-YEAR FUELS TREATMENT TOTAL REACHES 148,315 ACRES

In 2008, partnership agencies treated **31,023** acres, bringing our five-year total to 148,315 acres (30,777 acres were treated in 2007; 34,629 in 2006; 24,908 in 2005; and 26,978 in 2004). Following are the highlights of accomplishments from 2008.

# COLORADO STATE FOREST SERVICE

In 2008, The Colorado State Forest Service (CSFS) treated a total of 11,139 acres on private and government lands.

#### **BOULDER DISTRICT**

In 2008, the Boulder District treated a total of 1,320 acres in numerous projects throughout Boulder and Gilpin counties. Total acres treated included 606 acres on private lands, as well as acreage on local, state, and federal lands.

Since 2004, nine Community Wildfire Protection Plans (CWPPs) have been completed, which address wildfire protection for 94 communities in the wildland-urban interface. Four additional CWPPs will be finalized in 2009. One of these CWPPs will be a countywide plan for Gilpin County that addresses wildfire protection plans for numerous towns, subdivisions, and critical watersheds and associated infrastructure.

Two additional watersheds that benefit from FRFTP funding mechanisms include Denver Water's Gross Reservoir and the city of Longmont's Button Rock Reservoir. Boulder County Parks and Open Space one of 12 forest restoration projects that protect critical water supplies and address related forest health challenges — was awarded \$50,000 for the Heil Valley Ranch 2008 Fuels Reduction Project. Funding was made available through the passage of House Bill 07-1130. The Colorado Community Forest Restoration (CFR) grant program, established by the General Assembly through Senate Bill 071, awarded \$50,000 to the Boulder Mountain Fire Mitigation program and \$60,000 to the city of Longmont's Cook Mountain Fuels Reduction Program for Button Rock Reservoir. In November, Longmont also was awarded additional federal funding through a Community Watershed Initiative Grant, which targets the protection of certain elements of water storage and transportation infrastructure.

#### **BROOMFIELD OFFICE**

The Broomfield Office staff of the Colorado State Forest Service provides co-leadership in the operations of the FRFTP. As well, staff is involved in the emergent joint efforts to protect Front Range watersheds from severe wildfires (see page 15).

#### FORT COLLINS DISTRICT

In 2008, the Fort Collins District treated a total of 861 acres. Of these total acres, the district completed 458 acres on private lands and 403 acres on local government lands. In addition, three Community Wildfire Protection Plans were completed in 2008 and three additional plans were initiated or in development with expected completion in 2009.

With guidance from CWPPs, several communities worked on projects located on private lands. The Thunder Mountain Homes Association in the Estes Valley is one of these communities. The community has worked for several years to create and expand fuelbreaks on homeowners association-owned property around homes, and actively addresses mountain pine beetle (MPB) infestations.

Larimer County Parks and Open Lands and Larimer County Emergency Services utilized an HB-1130 grant to address forest health and fuels mitigation issues at Horsetooth Mountain Park, which also helps protect Fort Collins' water supply. The park includes the headwaters for Mill and Spring creeks, which flow into Horsetooth Reservoir, the primary water source for the city of Fort Collins.



Volunteers stack firewood and pile slash after fuels treatment at Horsetooth Mountain Park.

Other accomplishments included the project on the Colorado State University (CSU) Pingree Park Campus. The CSFS Fort Collins District and its engine crew, and CSU student volunteers worked together to remove

mountain pine beetle-infested brood trees and reduce wildfire risk around the campus buildings and facilities. A recent effort within the CSFS Outreach Division and Fort Collins District resulted in the initiation of a CWPP for the Pingree Park Campus and its surrounding neighbors.



Before treatment

View to the east from Horsetooth Mountain Park, before and after fuels treatment.



After treatment

#### FRANKTOWN DISTRICT

The Franktown District treated a total of 1,000 acres in 2008, including a 5-acre fuels mitigation and defensible space demonstration area at the Roxborough State Park Visitor Center. The goal — to reduce fire hazards around the visitor's center — also illustrates to visitors and residents the benefits of forest management.

Layout also was completed on a 25-acre fuels reduction project at Roxborough State Park to create an emergency evacuation route through the park for residents of the Roxborough community along Douglas County Road 5. The project will create a firebreak along the road and reduce fuels beyond the firebreak to provide a safe access route. Work will be completed in 2009.



Gambel oak prior to fuels treatment at Roxborough State Park.



Post-treatment of Gambel oak at Roxborough State Park.

The Franktown District also completed a 160-acre fuels treatment project west of Roxborough State Park on Denver Water lands. A CSFS forester in the Franktown District serves as Denver Water's forester on properties in Douglas, Jefferson, Boulder, and Grand counties.

A large portion of Denver Water lands in the Upper South Platte Watershed adjoin U.S. Forest Service lands, and the district looks for opportunities to do cross-boundary work that increases treatments across the watershed. In 2008, the district completed fuels treatment on 108 acres near Deckers as a Good Neighbor Authority (GNA) project. The GNA allows the CSFS to administer work on adjoining USFS lands. The district created a fuelbreak along a ridgeline above Deckers and thinned the remaining forest to improve forest health and decrease wildfire hazard.

The Franktown District also is in the process of laying out projects on approximately 50 acres on private lands. Four new CWPPs were developed for various communities in Douglas County.

In 2009, FRFTP funds will be used to treat approximately 100 acres that adjoin USFS land in the Jarre Canyon and Jackson Creek located in Douglas County.

#### **GOLDEN DISTRICT**

The Golden District treated 2,700 acres on public lands owned by Denver Mountain Parks, Colorado Division of Wildlife, Colorado State Land Board, Colorado State Parks, Jefferson County Open Space, and private lands. These forest treatments reduced wildfire hazard, and enhanced big game habitat, improved forest health, reduced insect and disease outbreak potential, and restored forest structure. Fuels treatment projects were completed through a combination of contracted services, seasonal field crews, local fire department personnel, and private landowners. Following are project accomplishments:

- 1,800 acres were treated by landowners in our Forest Ag Program
- 94 acres of prescribed fire were completed at White Ranch Open Space Park
- 205 acres of mechanical treatment were completed at Golden Gate Canyon State Park as part of a FEMA project
- 100 acres of fuels treatment were completed by the Golden District Seasonal Mitigation Crew at Cub Creek Park
- 126 acres of mechanical treatment were completed at Staunton State Park as part of a FEMA project
- 120 acres of prescribed fire were completed at Staunton State Park
- 97 acres of prescribed fire were completed at the Mount Evans State Wildlife Area
- 10 acres were completed at Genesee Park as part of the Holiday Tree Sale
- Treatment on nearly 7 acres was completed as part of a demo project on open space lands within the Ken-Caryl Ranch Master Association HOA
- 100 acres of treatment were completed by a local fire department within the Deer Creek Valley Ranchos HOA
- A 22-acre clearcut project continues at the Bergen Peak State Wildlife Area to create big game habitat and forage, and develop safety zones for the nearby community of Echo Hills HOA



Fuelbreak at Golden Gate Canyon State Park.

In 2009, several projects are planned for the Golden District. The district will continue to work with various agencies and landowners to accomplish cross-boundary fuels treatments.



Prescribed fire at the Mount Evans State Wildlife Area.



Clearcut at the Bergen Peak State Wildlife Area.

#### **GRANBY DISTRICT**

In 2008, the Granby District completed fuels treatment on a total of 2,816 acres in Grand and Summit counties. The acreage included 250 acres on Denver Water lands and 898 acres on private lands. Many of the fuels reduction acres occurred adjacent to and in conjunction with similar treatments on federal lands. The focus of these treatments is community protection within and surrounding the Fraser Valley in Grand County and portions of Summit County. Cooperation with key private landowners and the USFS allowed the district to link treatment areas surrounding the Fraser Valley and create fuelbreaks on approximately 2,500 acres. The treatments have the added benefit of watershed improvement. With the soon-to-be completed Granby Fire Protection District CWPP, a total of three CWPPs will encompass eastern Grand County.



Fuels treatment in the Granby District area.

### WOODLAND PARK DISTRICT

The Woodland Park District completed 2,442 acres of fuels mitigation through various programs on the district. Treatments occurred on private, county, and municipal lands, state parks, and state wildlife areas.

#### WOODLAND PARK HEALTHY FOREST INITIATIVE

The most significant event was the community of Woodland Park's selection as the Front Range Roundtable Community Demonstration Project. The project will provide for fuels treatment in high risk areas that will improve forest health and develop local biomass opportunities. The Woodland Park Healthy Forest Initiative (WPHFI) has brought together the expertise of a diverse group of partners. In the initial stages of the project, much of district staff's time was occupied with applying for grants to fund mitigation. To date, the project has received tremendous support.

Although in past years a great deal of mitigation work already was completed in the WPHFI area, December 11 was a milestone event when the initiative's first mitigation project got underway in Woodland Park. Six acres at the Meadow Wood Sports Complex will be thinned to create a highly visible demonstration area and fuelbreak. City crews will cut trees and the Coalition for the Upper South Platte (CUSP) will chip the slash.

#### OTHER PROJECTS ON THE DISTRICT

Meanwhile, mitigation efforts proceeded in other areas of the Woodland Park District, and CWPPs were completed for Black Forest, Palmer Lake, and Ridgewood.

With the district's partners at CUSP, the district has been able to extend mitigation efforts to address other forest health issues. Two of Teller County's most notorious mountain pine beetle "bug spots" have received much needed attention. With FRFTP and mountain pine beetle funding, the Old Wagon Road bug spot on the southeast edge of Woodland Park was cleaned up, and work is underway on the Wishing Well bug spot further east. Dead wood, salvaged from both projects, was donated to the *Help the Needy* organization to heat the homes of families in Teller County.

The majority of fuels treatment on the Woodland Park District lives up to the "urban" in wildland-urban interface. The district's partners at Colorado Springs City Forestry and the Colorado Springs Fire Department have active mitigation programs. City forestry mitigated 70 acres in one of the most famous and unique city parks in the world — Garden of the Gods. This project was partially funded with cost-share dollars from FRFTP and wildland-urban interface grants. The Colorado Springs Fire Department also received a FEMA grant to mitigate fire hazard in high risk areas, and to date, has treated 85 acres throughout the city.



Fuels mitigation at the Garden of the Gods.

Prominent fuels treatments occurred on state lands this year where 70 acres were completed on Cheyenne Mountain State Park and 85 acres on Mueller State Park. In addition, nearly 500 acres of state wildlife areas were treated through controlled burns. Timber harvests on State Trust Lands contributed another 290 acres.



Fuels mitigation at the Cheyenne Mountain Zoo using mastication equipment.

El Paso County completed a 7-acre fuelbreak in Black Forest Regional Park. Just north of the park, Shamrock Ranch completed 100 acres of fuelbreaks. The district is proud of a 4-acre fuelbreak and demonstration area on the Black Forest School Section adjacent to the slash and mulch site. The project, a community service project of the Pikes Peak Wildfire Prevention Partners, was underwritten by a \$1,500 grant from Mountain View Electric Association. The distinct characteristic of this project is that it is the second time in 30 years the area was thinned. The school section project demonstrates how a healthy forest can be maintained throughout the years.

On the south slope of the Pikes Peak Watershed, 276 acres were treated. The final draft of a new Watershed Stewardship Plan was completed, and final is publication scheduled for 2009.

Slash and mulch programs on the district continued to be successful this year. The Black Forest program and the Teller County site were busy the entire summer. In addition, a new site in the Southwestern Highway 115 Fire Protection District opened in the fall 2008. Area landowners responded enthusiastically, and the program will continue in 2009.



Fuels mitigation on the Black Forest School Section project.

# NATIONAL PARK SERVICE

#### ROCKY MOUNTAIN NATIONAL PARK

During 2008, the fire and fuels management crew completed several fuels reduction projects in the wildland-urban interface along the park boundary, including 800 acres of broadcast burning.

Approximately 1,200 acres were treated in 2008.

#### 2008 HAZARDOUS FUELS REDUCTION PROJECTS

- Beaver Meadows Broadcast Burn: 600 acres 600 acres were burned in the fall
- Deer Mountain South Slope Urban Interface: 165 acres

Park staff thinned and piled 165 acres on the south side of Deer Mountain

- Bear Meadows Broadcast Burn Prep: 100 acres
  Park staff thinned 100 acres in preparation for the
  Beaver Meadows broadcast burn
- Moraine Park Structure Defense: 112 acres
   62 acres of thinning, hauling, and pile burning were completed around Moraine Park Campground,
   Moraine Park Museum, Tuxedo Park housing area, and Kaley Cottages housing area; an additional 50 acres were treated and piles will be burned in 2009
- Emerald Mountain, Mill Creek, and Glacier Basin area: 40 acres
  Park staff thinned, piled, and burned 7 acres; an additional 33 acres were treated and piles will be burned in 2009
- Bear Lake Road Corridor Buffer: 50 acres 50 acres of piles were burned in the winter
- Deer Ridge Junction Corridor Buffer: 45 acres 45 acres of piles were burned in the winter
- Ashton Cabin Structure Defense: 6 acres 6 acres of piles were burned in the winter
- Deer Mountain Ridge: 5 acres
  5 acres of piles were burned in the winter







Beaver meadows ignitions and broadcast burn in Rocky Mountain National Park.

#### COMMUNITY FIRE ASSISTANCE GRANTS

#### Fiscal Year 2008 - \$20,000

- \$10,000 to the Community of Allenspark for development of a CWPP
- \$10,000 to the Estes Park Volunteer Fire Department for implementation of a CWPP and property risk assessments

#### **RURAL FIRE ASSISTANCE GRANTS**

**Fiscal Year 2008** - \$27,544 in grant funding was distributed to local volunteer fire departments for basic wildland fire safety equipment, tools, supplies, and training

- \$9,700 to the Allenspark Fire Protection District
- \$9,028 to the Estes Park Volunteer Fire Department
- \$5,000 to the Glen Haven Volunteer Fire Department
- \$3,816 to the Grand Lake Fire Protection District

#### **COMMUNITY OUTREACH AND EDUCATION**

The park conducts an active fire education program that seeks to raise awareness among the general public, and facilitate collaborative efforts with adjoining private landowners, local municipal, county, and state governments.

# **U.S. FOREST SERVICE**

## ARAPAHO AND ROOSEVELT NATIONAL FORESTS

The Arapaho and Roosevelt National Forests (ARNF) treated a total of 11,207 acres. Of the total, 7,955 acres were treated mechanically and 3,252 acres were treated with prescribed fire. Personnel from the ARNF, Pike National Forest, and Rocky Mountain Regional Office continued development of a 10-year Long-Term Stewardship Contract. The Request for Proposals was posted in September of 2008. The purpose of this contract will be to enhance efforts to reduce hazardous fuels. Forest personnel continued to assist local communities and the Colorado State Forest Service in developing Community Wildfire Protection Plans. Planning was completed for over 16,250 acres of hazardous fuels reduction treatments.

The ARNF, along with the White River and Routt National Forests and numerous other cooperators, continued efforts associated with the Colorado Bark Beetle Cooperative to address the mountain pine beetle epidemic occurring in north central Colorado. Treatments on the Sulphur Ranger District are planned in an integrated manner to support the goals and objectives of both the Front Range Fuels Treatment Partnership and the Colorado Bark Beetle Cooperative.

In 2008, the mountain pine beetles expanded substantially east of the Continental Divide. ARNF personnel are participating with personnel from Boulder, Clear Creek, Gilpin, Jefferson, and Larimer counties, the Colorado State Forest Service, and Rocky Mountain National Park on the Northern Front Range Mountain Pine Beetle (NFRMPB) Working Group to coordinate treatment efforts (see page 16).

# SOUTH ZONE FUELS PROGRAM (BOULDER & CLEAR CREEK RANGER DISTRICTS)

In 2008, hazardous fuels reduction treatment was accomplished on 1,995 acres within the wildland-urban interface. Of these acres, 1,377 were accomplished through mechanical thinning and 618 through prescribed fire.

Sugarloaf Fuels Reduction Project — The Sugarloaf Fuels Reduction project covers approximately 5,000 acres. The project decision notice was signed in January of 2004. Located just west of Boulder, the Peak-to-Peak Scenic Byway defines the western boundary of the project area. Crews continued operations in the project

area in 2008, and 661 acres were treated or are under contract to be treated. Treatments include forest thinning and piling, and prescribed burning.

James Creek Fuels Reduction Project — The decision notice for this project was signed in September 2004 and includes 6,402 acres of treatment. Treatment on approximately 420 acres was accomplished in 2008.

**St. Vrain Project** — This Healthy Forests Restoration Act (HFRA) project decision identified approximately 2,650 acres of proposed treatment. The project gives priority to community and neighborhood protection with some emphasis on wildlife habitat and forest restoration in specific areas. Treatment on approximately 140 acres was accomplished in 2008.

Yankee Hill Project — The project is an Integrated Landscape Design to Maximize Fuel Treatment Effectiveness Pilot project. The team formulated areas consisting of 1,000 to 3,000 acres for potential treatment that focused on neighborhood/community protection, with special attention given to watershed and recreation resource protection. The planning effort was completed in 2007 and identified almost 1,500 acres for treatment. Implementation has not yet begun due to funding limitations.

Evergreen Fuels Project — The project's decision notice was signed on the 1,000-acre project in 2004. The project is located in the Yankee Creek area within the Elk Creek Fire Protection District near Evergreen. Crews continued operations in the Evergreen project area in 2008, and approximately 270 acres were treated or are under contract to be treated.

#### CANYON LAKES RANGER DISTRICT

In 2008, hazardous fuels reduction treatment was completed on 5,202 acres, all within the wildland-urban interface. Of these acres, 3,419 were treated through mechanical thinning and 1,783 acres through prescribed fire. In addition, decisions were made to reduce hazardous fuels on more than 16,000 acres.

Crystal Lakes Fuels Reduction Project — Located north and west of the community of Red Feather Lakes, the Crystal Lakes subdivision has been recognized as a Firewise Community/USA. The decision document was signed in 2004, and treatment areas were completely laid out. Treatments include forest thinning, prescribed burning, and biomass removal. In 2008, 282 were treated to reduce hazardous fuels.

**Sheep Creek 2** — The project area plan decision notice was signed in 2004. The project includes mechanical treatment and prescribed fire on 4,200 acres. In 2008, 680 acres were treated.

Stringtown West Fuels Reduction Project — At approximately 4,062 acres, this project was analyzed with a categorical exclusion (CE). The project complements previous projects that were completed in the area on National Forest System land and extended work being done by the Colorado State Forest Service in conjunction with homeowners in the area. A decision on this project was made in 2006. Treatment on 90 acres was accomplished in 2008. A lawsuit in a California district court challenging the use of categorical exclusions on these types of projects has required that this project be re-analyzed in 2009.

Lone Tree Fuels Reduction Project — The project involves approximately 2,400 acres. A decision on this project was made in 2006. A lawsuit in a California district court challenging the use of categorical exclusions on these types of projects has required that this project be re-analyzed in 2009.

Pingree Hill Fuels Reduction Project — The project involves approximately 2,400 acres. This is a wildland-urban interface project that includes numerous acres of private land. A decision on this project was made in 2007. Treatment on 317 acres was accomplished in 2008. A lawsuit in a California district court challenging the use of categorical exclusions on these types of projects has required that this project be re-analyzed in 2009.

Estes Valley Fuels Reduction Project — The project, which surrounds the community of Estes Park, is a Healthy Forests Restoration Act (HFRA) project. A decision was made in 2005 to treat more than 7,500 acres to reduce hazardous fuels. The wildland-urban interface project includes numerous acres of private land; many private landowners currently are engaged in fuels reduction activities guided by the Colorado State Forest Service. Treatment on private land is being integrated into the planning of this project on National Forest System lands. Implementation continued in 2008 with treatment on approximately 2,760 acres.

**Dowdy Lake Prescribed Fire** — The Canyon Lakes Ranger District successfully completed a prescribed fire on approximately 440 acres near Dowdy Lake. These units were thinned by machine or hand to decrease hazardous fuels and open up ponderosa pine stands before the prescribed burn was conducted. Prior to burning, a firewood sale was open to the public to gather some of the slash product created from the thinning. The

prescribed burn was the final step to reduce slash and help restore natural vegetation to the area, including native grasses.

Red Feather Fuels Reduction Project — Planning was completed on this project in 2008. There are several approved CWPPs in the project area, including Red Feather Lakes, Magic Sky, Ben Delatour Scout Ranch, Livermore Fire District, Rustic, and Manhattan Creek. More than 23,000 acres of National Forest System lands were analyzed for treatment, and hazardous fuels reduction treatments were identified on more than 15,800 acres. Implementation will begin in 2010.

#### SULFUR RANGER DISTRICT

In 2008, hazardous fuels reduction treatments were accomplished on 4,010 acres, and a substantial portion was in the wildland-urban interface. Of these acres, 1,817 were accomplished through mechanical treatments, 1,342 acres through timber sales, and 851 through prescribed fire. The ongoing mountain pine beetle epidemic continues to increase the hazardous fuels workload.

Blue Ridge Salvage / Fuels Reduction Project — The project area, located west of Granby and south of Hot Sulphur Springs, will reduce hazardous fuels and treat the effects of an ongoing mountain pine beetle epidemic. The project, initiated in 2006, analyzed the need for treatment on 30,000 acres. A decision was signed in 2008 and implementation began. The Blue Ridge Salvage sale treated almost 1,000 acres and another 644 acres were treated through hazardous fuels reduction contracts and with forest service crews.

Arrow Salvage / Fuels Reduction Project — The project area is located east of the Town of Winter Park. A decision was completed in 2007 and implementation began in 2008. Almost 240 acres were treated for the Arrow Salvage Sale, and another 180 acres were treated through hazardous fuels reduction contracts and with forest service crews.

Developed Sites Hazard Mitigation — The ongoing mountain pine beetle epidemic has killed numerous trees in high-value recreation sites. In 2008, the number of dead trees created circumstances that increase wind-throw of green trees. This resulted in the need for large-scale hazard mitigation in a number of high-value recreation sites. More than 950 acres were treated to remove wildland fire and safety hazards created by the mountain pine beetle.

#### **PIKE NATIONAL FOREST**

The Pike National Forest collaborates with land managers, fire managers, emergency managers, community groups, and private landowners throughout the Front Range. The administrative unit encourages strategic planning to identify the most appropriate methods for reducing wildfire risk and engaging diverse stakeholders within the planning process.

This year, 7,477 acres were treated on the forest. Following is the breakdown by ranger district.

#### PIKES PEAK RANGER DISTRICT

In 2008, the Pikes Peak Ranger District treated 650 acres through prescribed burning and 1,600 acres through mechanical treatment for a total of 2,250 acres, up nearly 100 acres over 2007. The district completed most acres in the Teller County CWPP Priority Zone #1 and in the urban-interface/intermix; completed 400 acres of pile burning and 250 acres of broadcast burn acres on Trout Creek and Monument Fire Center; 500 acres of force-account thinning with the fire crews; and piled 150 acres of residual slash with dozer 10 and force-account crews.

The district completed three mastication contracts: 250 acres at Skelton Ridge, 330 acres at Ridgewood North, and 150 acres at Sunny Glenn.

Following is a summary of the percentage of acres treated on projects within Pikes Peak Ranger District:

**Trout Creek** 10 percent (down 75 percent from 2007) **Ridgewood** 20 percent (down 50 percent from 2007) **Long John** <10 percent (down 40 percent from 2007) **Ryan Quinlan** 15 percent (down 35 percent from 2007) **Skelton Ridge** 20 percent (down 50 percent from 2007) **Rampart** 25 percent (up 15 percent over 2007)

In 2009, the district will work on an Environmental Impact Statement (EIS) for Catamount (approximately 122,000 acres). Completion of the Landscape Assessment portion of this EIS occurred in the summer 2008.

In addition, an Environmental Assessment (EA) for Trout West Phase II (approximately 4,000 acres) has an estimated completion date of March 2009.

#### SOUTH PARK RANGER DISTRICT

The South Park Ranger District treated a total of 1,948 acres in 2008. Of the total, 1,428 acres were treated through prescribed fire (FS crews), 150 through mechanical treatment (FS crews), and 370 acres through a short-term stewardship contract. Another 370 acres was offered in a short-term stewardship contract; however, it was not awarded due to the fire transfer. All

work was completed in WUI areas of the Sledgehammer project area southwest of Lake George. The project includes a critical South Platte River watershed, one of only two remaining areas in the montane zone on the South Platte River that has not been burned in a wildfire. The heavily used Eleven Mile Canyon Recreation Area and numerous subdivisions are located throughout the area.

In addition, the district laid out more than 2,000 acres for treatment through future stewardship contracts in the Rocky Messenger project area just outside Lake George and on the South Platte and Pikes Peak Ranger districts. The district dozer completed numerous roller-chopping, crushing, and piling projects across the Pike and San Isabel National Forests.

District personnel also participated in all other broadcast burns on the Pike and San Isabel National Forests, as well as the Cimarron and Comanche National Grasslands.

#### SOUTH PLATTE RANGER DISTRICT

In 2008, the South Platte Ranger District accomplished 3,279 acres of hazardous fuels reduction treatments, primarily within the wildland-urban interface. Prescribed burning was completed on 973 acres and mechanical treatment was completed on 2,306 acres. Approximately 700 acres of contract administration continued throughout the year on contracts awarded during previous fiscal years. Work, such as road maintenance, continued within areas proposed for Long Term Stewardship contracts.

#### **Prescribed Fire**

Forest Service crews accomplished 973 acres of prescribed fire by igniting large "brush" piles or concentrations that remained after trees were cut. Broadcast area burns were safety accomplished in Miller Gulch and Jenny Gulch. The applications for smoke permits and implementation of approved permits continue to require a significant effort due to the proximity of these projects to the Denver air shed.

#### Mechanical Work

Contracts for mechanical treatments were awarded with fiscal year 2008 funds for mastication of 1,137 acres within the Upper South Platte Watershed Restoration and Protection project. Four contracts were awarded under the Bureau of Land Management Indefinite Delivery, Indefinite Quantities Contract. The prescription for mastication generally is thinning from below to reduce the average basal area of live tree at least 20 percent in diameter class 0-14 inches. This work requires completely severing mid-story and understory

vegetation from the stump and treating the downed vegetation, including pre-existing slash. In addition, forest crews hand-thinned 296 acres of the FDR 550 shaded fuelbreak.

The Pike National Forest dozer mechanically rearranged — crushed, piled, and scattered — fuel on 787 acres within the Dell Gulch, Molly Gulch, and Kelsey areas. Fuel wood was removed by permit on 50 acres on the Wigwam fuel wood area, and 36 acres from the Platte River Fuels Reduction project.



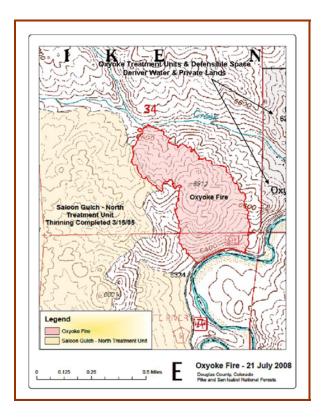
U.S. Forest Service crews hand-thinned 296 acres of the FDR 550 shaded fuelbreak.

# Do Hazardous Fuels Treatments Affect Fire Behavior, Suppression, and Fire Costs?

On July 20, 2008, south-southeast winds blew a fire up Gun Barrel Creek and into the North Saloon Gulch Fuels Treatment Unit. This fire became the 110-acre "Oxyoke Incident," which the Pueblo Zone Type III Incident Management Team managed between July 20 and 22.

A review of the Oxyoke Fire showed it was bordered by the North Saloon Gulch Treatment Unit to the south, the Oxyoke Treatment Unit approximately ½ mile to the north, and various hazardous fuels treatments on Denver Water and private lands approximately one-tenth mile to the east. The fire burned with greater intensity in the *untreated* area than in the treated area. It is important to note that the fire did not reach the tree canopy in the treated area.

When the North Saloon Gulch was mechanically masticated in 2004, the restoration and hazardous fuels reduction treatment opened the crown closure in the tree canopy to 20 to 30 percent. Air tanker drops between the Oxyoke Fire and this treatment unit impeded the fire spread. Retardant dropped on the edge of the treatment



The Oxyoke Fire map on July 21, 2008.

easily penetrated the tree canopy, and much of the retardant ended up on the ground. Hand crews were able to safely and quickly follow-up and construct a line on a ridge top. Hand crews stated that building fire line along this section of the fire was "simple and easy."

The only potential for the Oxyoke Fire was to continue up Gunbarrel Creek toward Long Scraggy Peak. If the fire had crossed Gunbarrel Creek and burned into the Long Scraggy Peak area, it would most likely have required an additional eight to 10 days to control. The additional time would have tripled the cost of the incident and likely required the services of a Type II Incident Management Team.

When looking at the fire suppression costs for the Oxyoke Fire and the fuels treatment cost on North Saloon Gulch, approximately 13 acres of watershed restoration and hazardous fuels reduction treatment were accomplished compared to the cost to suppress a single acre of the Oxyoke Fire (13:1 ratio). More so, because this fire was controlled at a smaller size, less soil erosion occurred in the South Platte River. There also were fewer impacts to fish and other aquatic habitat, and there was little or no damage to the South Platte Watershed and Metro Denver's water supply.

## ROCKY MOUNTAIN RESEARCH STATION

### 2008 RMRS Science Update

# PRELIMINARY RESULTS OF A SURVEY OF HOMEOWNERS IN BOULDER COUNTY

Patty Champ, USDA Forest Service, RMRS Nick Flores, University of Colorado, Economics Department Hannah Brenkert-Smith, National Center for Atmospheric Research

survey funded by Boulder County was administered by the University of Colorado to a random sample of county residents who live in the wildland-urban interface. The purpose of the survey was to better understand what actions homeowners had taken to reduce the risk of losing their home to a wildfire. The survey data also provide insight into what motivates homeowners to take or not take action. The following results were found:

Survey respondents were middle-aged (55 years) on average, mostly male (59 percent), white (96 percent), married (72 percent), and well-educated (41 percent with advanced degrees) with relatively high incomes (57 percent earned more than \$100,000 per year). Survey respondents were largely (96 percent) full-time residents who own their homes (97 percent).

The survey included a list of 12 actions that homeowners could take to reduce the risk of losing their home due to a wildfire. The list was developed using Firewise recommendations for reducing wildfire risk along with consultation with the Boulder County wildfire specialist. Only 3 percent of the respondents had not done anything on the list. The three actions most often taken by the respondents were to:

- Remove dead or overhanging branches 30 feet around the home (73 percent)
- Install a house number in a visible place (69 percent)
- Mow tall grasses around the home (65 percent)

The actions taken by the fewest number of survey respondents were to: install fire resistant siding (22 percent); install a screen over roof vents (22 percent); and prune limbs 30-100 feet from the house (42 percent).

We compared "high" mitigators to "low" mitigators, where we define "high" mitigators as homeowners who said they completed nine or more of the mitigation activities listed in the survey. The remaining survey respondents were classified as "low" mitigators. We then compared high and low mitigators with respect to demographics, experience with wildfire,

source of wildfire information, and factors they considered when making decisions about mitigating the risk of wildfire.

The comparisons were interesting. High mitigators had higher education levels and higher incomes compared to low mitigators. With respect to wildfire experience, high mitigators were more likely than low mitigators to have personal experience with wildfire. Although few survey respondents' homes had been damaged by wildfire, high mitigators were more likely than low mitigators to have had their home damaged by wildfire. Likewise, high mitigators were more likely than low mitigators to have been evacuated or prepared to evacuate due to a wildfire.

One interesting result was that no significant difference existed between high and low mitigators in wildfire risk awareness at the time respondents purchased their homes. Most of the survey respondents were somewhat aware or very aware of wildfire when they purchased their homes (92 percent of the high mitigators and 85 percent of the low mitigators).

There were differences in where high and low mitigators obtain information about wildfire. High mitigators were more likely to obtain wildfire information from the local fire department, a neighborhood group, the Boulder County wildfire specialist, or the Colorado State Forest Service compared to low mitigators.

The survey also included a question about factors (i.e., financial expense, time, physical difficulty, lack of specific information about how to reduce risk, likelihood of a wildfire on their property) considered when making wildfire mitigation decisions. The high and low mitigators considered all the factors similarly. This result is somewhat surprising. For example, one might think that the cost of mitigation is an issue as high mitigators earned higher incomes than low mitigators. However, the results of this survey do not support such a conclusion.

Further analyses of the survey data will allow for modeling of the mitigation decisions and investigation into the informal social networks and wildfire risk mitigation decisions.

This survey effort evolved from a qualitative study funded by the FRFTP and leveraged with funds from the Environmental Protection Agency, the University of Colorado, the Rocky Mountain Research Station, Boulder County, and Larimer County. Currently, Hannah Brenkert-Smith is a postdoctoral candidate in the Advanced Study Program at the National Center for

Atmospheric Research. She will analyze the Boulder County data described here, as well as data collected in Larimer County, as part of her postdoctoral duties.

# CLIMATE CHANGE ADAPTATION OPTIONS FOR NATIONAL FORESTS

he Climate Change Science Program (CCSP, www.climatescience.gov) released the Synthesis and Assessment Report 4.4 Preliminary Review of Adaptation Options for Climate Sensitive Resources and Ecosystems. Linda Joyce of RMRS was part of the lead author team for this report and was the lead author for the National Forest chapter. This chapter will help resource managers address the impacts of climate change on sensitive ecosystems and natural resources, and identify what options are available for adaptation. Conceptual frameworks for planning and management are offered, as well as specific management approaches to address climate change impacts in both the near and longer term. And while the chapter will be informative, the process of developing the information has allowed the authors to engage national forest managers in ways that are unprecedented in research-management partnerships. In addition to several workshops, the three case studies associated with this chapter taught both managers and scientists many lessons about adaptation opportunities and barriers. Additionally, it has provided the basis for numerous research-management workshops in the western United States where state-of-the-art scientific information is provided in a setting designed to engage in dialogue with managers.

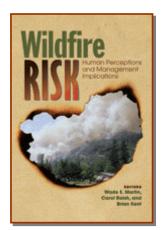
#### The citation for the full report is:

CCSP, 2008: <u>Preliminary review of adaptation options</u> for climate-sensitive ecosystems and resources. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. [Julius, SH, JM West (eds.), JS Baron, B Griffith, LA Joyce, P Kareiva, BD Keller, MA Palmer, CH Peterson, and JM Scott (Authors)]. U.S. Environmental Protection Agency, Washington, DC, USA, 873 pp.

# WILDFIRE RISK: HUMAN PERCEPTIONS AND MANAGEMENT IMPLICATIONS

2007 book, Wildfire Risk: Human Perceptions and Management Implications, was edited by Wade Martin of California State University at Long Beach, and Carol Raish and Brian Kent of RMRS. As the title suggests, the central theme is wildfire risk with consideration given to different perspectives. The book has three sections — Community Perspectives, Individual Perspectives, and Risk-Modeling Perspectives.

A quote from the introduction of the book:



"The objective of this book is to add to the accumulating social science knowledge about wildfire risks and human response to those risks. Chapters acknowledge the variety of risks presented by fire events, such as to resources, human life, property, and community well-being, and examine the actions that individuals, communities, land managers, and policymakers currently

take or do not take, and those they could potentially take, to deal with those risks. They cover a wide range of topics including economics, institutions, individual attitudes and perceptions, community actions, collaboration, cultural and ethnic variations, and quantitative decision tools; advance theoretical development in the social science disciplines; and provide applied lessons. In doing so, the authors draw from several bodies of literature in addition to the general risk literature..."

The book is available from the publisher, Resources for the Future, at: www.rffpress.org.

# ECOLOGICAL EFFECTS OF MULCHING TREATMENTS IN CONIFEROUS FORESTS ALONG THE COLORADO FRONT RANGE

Mike Battaglia, USDA Forest Service, RMRS Chuck Rhoades, USDA Forest Service, RMRS Monique Rocca, Colorado State University, Forest, Rangeland, and Watershed Stewardship Michael G. Ryan, USDA Forest Service

This ongoing study examines the ecological impacts of fuels reduction treatments that chip, shred, or masticate unmerchantable trees and distribute the biomass on site. Along the Colorado Front Range and Western Slope, we established several study sites in four separate ecosystems to determine how treatments alter the distribution of woody biomass and how these changes affect the understory, fuels and fire behavior, and soil nutrients 2-4 years after mechanical treatment. The four ecosystems are:

- 1. **Lodgepole pine** (*Pinus contorta*)
- 2. Mixed conifer
- 3. **Ponderosa pine/Douglas-fir** (*Pinus ponderosa/ Pseudotsuga menziesii*)
- 4. **Pinyon pine-juniper** (Pinus edulis /Juniperus spp.)

As expected, total woody fuel loads increased in the treated areas of each ecosystem. However, the magnitude of the total increase differed among the ecosystems (lodgepole pine > mixed conifer > ponderosa pine > pinyon-juniper). Average total woody fuel loads in the untreated areas ranged between 3 to 4 tons/acre, but increased to 13 to 22 tons/acre in treated areas. Large diameter fuels (>3 inches) represent approximately 33 to 65 percent of the total woody fuel load in the untreated areas, but only about 11 percent of the total fuel load in the treated areas. The majority of woody fuels in treated areas were <1 inch in diameter. Mulch depths ranged from 0 to 5 inches, but the distribution of mulch depth differed among ecosystems. Needle litter mass was similar among treatments, indicating that needles are still a component of the forest floor complex, but are mixed with other fuel types or buried. The increased surface woody fuel component in treated areas corresponds to a shift from a needle fuel bed to a compact woody/needle fuel bed. This change in the fuel bed composition and orientation likely will influence fire behavior and effects.

Forest herbaceous layer productivity increased in some of the ecosystems in spite of the increase in total woody fuel cover and load. Treated pinyon-juniper and ponderosa pine forests had twice the graminoid cover and forb cover of untreated stands. Lodgepole pine and mixed-conifer forests supported similar covers of graminoids and forbs in treated and untreated stands.

Within treated ponderosa and pinyon-juniper stands, herbaceous cover was negatively correlated with mulch depth, while in lodgepole and mixed-conifer forests there was no relationship between mulch depth and herbaceous cover.

Several factors may explain the differences observed between the ecosystems. Average mulch depths tended to be higher in lodgepole (1.7 inches) and mixed-conifer (2.4 inches) treatments relative to ponderosa (1.5 inches) or pinyon-juniper (0.7 inches) treatments. Mulch depths in lodgepole and mixed-conifer may exceed the threshold where understory vegetation can grow, despite increases in light availability due to overstory thinning. Alternately, the overstory of lodgepole and mixed-conifer forests are naturally dense compared to ponderosa and pinyon-juniper, and may lack sufficient understory flora to respond to canopy reduction.

The shredded woody residue created by fuel reduction operations forms a mulch layer upon the forest floor that can change the biogeochemical processes that regulate nutrient availability and ecosystem productivity. Mulch layers affect both soil microclimate and inputs of water, nutrients, and carbon. Plant demand for soil resources and the consequences of mulch application likely differ between ecosystems and fuels reduction treatments. We used ion exchange resin (IER) bags installed beneath mulch beds to assay the movement of inorganic forms of nitrogen (ammonium and nitrate) in the upper 5 centimeters of mineral soil. Nitrate, a highly mobile anion, comprises 50 to 90 percent of IER-N. In general, both ammonium and nitrate declined with mulching. IER-N was 50 to 63 percent lower in mulched compared to untreated plots, regardless of mulch depth, although deeper layers reduced IER-N 36 to 95 percent, whereas the reduction beneath thinner layers was somewhat less (20 to 85 percent). When mulch treatments were assessed across forest landscapes. spatial variability of mulch deposition and variability in soil characteristics and plant populations complicate the biogeochemical signals created by mulch applied at the plot scale. We continue to monitor soil nutrients and plan to initiate more detailed studies in the near future.

The data collection and analysis of this research project are ongoing.

Our hope is to provide resource managers with Best Management Practices for mulch depths and distribution in these fuel reduction projects for the major forest ecosystems of the Colorado Front Range.

# **EMERGING ISSUES**

# PROTECTING FRONT RANGE FOREST WATERSHEDS FROM WILDFIRES

The seven major Front Range water providers — Aurora, Boulder, Colorado Springs, Denver Water, Fort Collins, Northern Colorado, and Westminster — draw their water supplies from 10 source watersheds in Colorado's forested mountains, which collectively provide more than two-thirds of the state's population with drinking water. Many cities and towns in the mountains also depend on the 10 source watersheds.

Severe wildfires can significantly impact watershed function due to loss of tree and vegetative cover, and soil heating that creates water-repellent slopes exhibiting rapid runoff, severe soil erosion, sediment movement, and organic debris flows in post-fire storms. Water infrastructures such as ditches, pipelines, and reservoirs also are directly threatened by fire, and even more so by post-fire flood events. The probability of severe wildfires is increasing. The average annual number of Colorado wildfires has risen from 457 in the 1960s to more than 2,700 today, and the average cumulative acres burned has risen from 8,170 to more than 97,400.

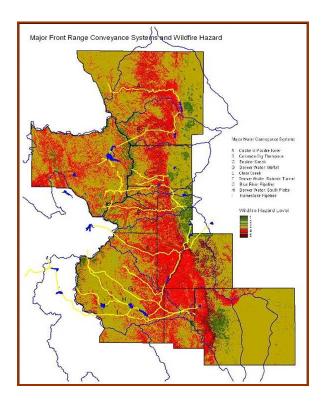
Colorado's population also is increasing, growing by 31 percent in the 1990s — the third fastest in the United States. The current population now numbers 4.7 million and is projected to reach 8 million by 2050. More than 80 percent of the state's population resides in Colorado's 10 contiguous Front Range counties.

In July 2007, the Pinchot Institute for Conservation released an assessment report titled Protecting Front Range Forest Watersheds from High-Severity Wildfires. which was funded by the Front Range Fuels Treatment Partnership. The report noted that the number, size, and severity of forest fires have steadily increased as the population of Colorado continues to explode and place higher demands on clean water supplies derived from source watersheds in the forest headwaters. The study concluded that climate factors and forest conditions place Front Range source watersheds at high risk from severe wildfires that threaten water supplies and the integrity of reservoirs with erosion and flood damage. The report urged land management agencies to consider working with communities — including cities along the Front Range that depend on water from the Front Range watersheds — to develop and implement critical watershed-wildfire protection plans to reduce these hazards.

The Pinchot Institute assessed risks and potential impacts of severe wildfires to source watersheds in

Boulder, Clear Creek, Douglas, El Paso, Gilpin, Grand, Jefferson, Larimer, Park, and Teller counties. They found that a buildup of forest fuels, combined with increasingly flammable forest conditions caused by drought, aging trees, and beetle kill, have created unprecedented hazards to Front Range water supplies in terms of severe wildfires. The analysis focused on:

- Forest wildfire hazards
- Fire regimes of the various forest types
- Land ownership patterns
- Soil erodibility and erosion hazards
- Water infrastructure in source watersheds



Major conveyance systems and wildfire hazard in the 10 Front Range counties. Source: 2007 Pinchot Institute for Conservation report.

In August 2007, the Colorado State Forest Service and U.S. Forest Service met with Front Range water providers to discuss the report's findings and explore ideas for joint action. All parties made a commitment to develop a strategic action plan for Front Range watersheds. In September 2007, the agencies and water providers met again and crafted the structural outlines of a partnership effort to protect these source watersheds from severe wildfire.

The organizational structure of the watershed wildfire protection efforts took shape through a series of meetings in the winter of 2007-2008. The oversight

group, the Front Range Watershed Wildfire Protection Working Group — composed of members from 21 participating organizations, including forest and land management agencies, water providers, and other interests — worked cooperatively with the Front Range Fuels Treatment Partnership Roundtable, while focusing on development of a strategic action plan for Front Range watersheds that included the following major actions:

- Improving watershed data for GIS analysis and creating a model for conducting watershed assessments that identify and prioritize sixth-level watersheds for potential treatment
- Developing guidelines for Critical Community
  Watershed Wildfire Protection Plans to promote
  prompt and effective forest treatments that reduce
  wildfire hazards in critical source watersheds
- Developing a strategy for public education that will help build broad support and promote investments in actions that fortify forests against severe wildfires in source watersheds

In August 2008, the working group started a pilot project in the Upper South Platte Watershed to test the effectiveness and applicability of the watershed assessment model referenced above. The objective of this test was to finalize a model that could be used in any major Colorado watershed or other watersheds throughout the western U.S. Findings from the pilot project will be released in early 2009 and will be available on the Front Range Fuels Treatment Partnership website at: <a href="www.frftp.org/research.htm">www.frftp.org/research.htm</a>.

## AGENCIES COORDINATE EFFORTS TO ADDRESS IMPACTS OF MOUNTAIN PINE BEETLE INFESTATION

any agencies coordinated efforts and formed a partnership called the Northern Front Range Mountain Pine Beetle Working Group to address mountain pine beetle that are moving into the area's counties. The partnership consists of Boulder, Clear Creek, Gilpin, Jefferson, and Larimer counties; the Arapaho and Roosevelt National Forests; the Colorado State Forest Service and Colorado State University Extension; Rocky Mountain National Park; and the USFS R2 Bark Beetle Incident Management Team.

One of the primary purposes of the working group is to provide reliable information regarding mountain pine beetle-related information. In 2008, the working group's accomplishments included:

- Internal and external communications that keep all involved agencies informed about what each is doing to mitigate beetle impacts
- A public website that provides a centralized source for mountain pine beetle-related information across agencies (www.frontrangepinebeetle.org)
- Educational workshops in the northern counties and at Colorado State University and the University of Colorado

Key to the working group's success are the public wood collection sites located in Boulder, Gilpin, and Larimer counties. The sites are operated in cooperation with Peak to Peak Wood, a program that helps move wood generated from forest management projects on public and private land into private markets where it can be utilized.



Adult mountain pine beetles under the bark of pine.

The NFRMPB Working Group and the Front Range Fuels Treatment Partnership worked closely together, and many members attended the Front Range Roundtable quarterly meetings.

In 2009, the Northern Front Range Mountain Pine Beetle Working Group will take steps to engage policymakers in their efforts.

# FRONT RANGE ROUNDTABLE



In 2008, the Front Range Roundtable continued to

implement recommendations from *Living with Fire: Protecting Communities and Restoring Forests*, with reinforcement provided by numerous Colorado House and Senate bills aimed at Forest Health. These bills deal with bark beetle infestations, wildfire costs, wildland-urban interface training, forest restoration, and watershed bonding for Forest Health, and are testament to the visionary recommendations made by the Roundtable in 2006.

The Roundtable convened for three full meetings in 2008 and focused on the research conducted by the Ecology Working Group.

The Roundtable also provided support and guidance for Woodland Park's efforts to obtain a Community Demonstration Project Award, and started the discussion of the Roundtable's future.

As the Roundtable's efforts move from planning and consulting to implementation and research, our membership shifted slightly. Yet, membership remains strong with more than 40 participants, and stronger in commitment, as we face 2009 and the challenges that continue to define the group.

The Roundtable continues to serve as a clearinghouse for fire risk reduction efforts throughout the region. Following are notable highlights of the Roundtable's efforts in 2008.

#### **COMMUNITY DEMONSTRATION PROJECT**

Torking with the Roundtable, and especially through the efforts of Roundtable Coordinator Lisa Dale, Woodland Park was the recipient of the Community Demonstration Project Award. The project already has attracted \$100,000 to help treat fuels in highrisk areas. Funding from the Governor's Energy Office, the Colorado Forest Restoration Institute, and the Office of Smart Growth will be matched with funding from national foundations and local organizations to make the Woodland Park Healthy Forest Initiative a reality. This collaborative project of various federal, state, local government, nonprofit, and individual partners is dedicated to the improvement of the resiliency and health of forests in and around the Woodland Park area. and the implementation of the Teller County Community Wildfire Protection Plan. Current funding for this project from the grant and from other partners exceeds \$350,000.

#### FOREST HEALTH ADVISORY COUNCIL

In March 2008, Gov. Bill Ritter launched a new state level Forest Health Advisory Council (FHAC). Because of the work that has been done by the Roundtable, and in the interest of our complementary efforts, the Roundtable will continue to work closely with the FHAC. State level coordination will help link the Front Range Roundtable with similar efforts throughout the state. Furthermore, the council's goals can be enhanced by coordinating with working groups established by the Roundtable.

#### **COUNTY WORKSHOPS**

The Biomass Utilization and Bio-heating Workshop in March 2008 was held at the award-winning Gilpin County Road and Bridge Building, and sponsored by the Governor's Energy Office. This successful event will encourage other such efforts on the Front Range. Participants attended a full day of presentations by local experts, a tour of the facility, and an open problemsolving workshop.

The Grant Writing Workshop in May also was wellattended and productive. Attendees, many of whom were county staff, now are better equipped to seek funding for forest health projects in their communities.

In June, the Roundtable offered a Planning and Zoning Workshop, which helped counties learn to better refine planning regulations aimed at limiting growth in the WUI.

#### ROUNDTABLE AWARD

n May 1, 2008, the Roundtable was presented with a Silver Award from the Denver Regional Council of Governments for its work as a "cooperating partner" on Gilpin County's Road and Bridge Building. The award was for community outreach and education as part of the Local Government Innovation Award Program. Gilpin County's Road and Bridge Building has become a regional model for its use of local wood products to provide heat and renewable energy.

#### **ECOLOGY WORKING GROUP**

The original recommendations from Living with Fire:

Protecting Communities and Restoring Forests were founded by information developed and agreed upon by the Roundtable for work in the lower montane forests. Although the Roundtable continues to focus on forest health and community protection in the lower montane, the impacts of bark beetles, efforts like those of the Front Range Watershed Wildfire Protection Working Group, and climate change make it necessary to take a critical look at the upper montane. Thus, there

is a need to answer the question, "What does the latest science tell us about appropriate management in lodgepole pine and other higher-elevation vegetation types?" The Ecology Working Group is working to establish zones of agreement in treating the upper montane.

In 2008, the group developed fact sheets and summaries on the science and appropriate treatment of lodgepole pine. The Ecology Working Group will continue these efforts in 2009 with assistance from the Colorado Forest Restoration Institute.

#### **ROUNDTABLE 2009**

The Roundtable has made progress on its original 10 recommendations. In 2009, Roundtable members will revisit and evaluate these initiatives to determine if they are still valid. This is being done for two reasons:

• The Roundtable has changed membership. Only about 50 percent of the current members were part of the original Roundtable.

• Along with the continued decline of forest health and the expansion of the WUI, the Roundtable also faces a bark beetle epidemic on the Front Range.

In the coming year, the Roundtable will continue to focus on implementation by asking cooperators for input to determine how to collectively address projects. In the long term, the Roundtable will refocus its efforts on specific recommendations from the original report; decide how to collectively address treatment of hazardous fuels, bark beetle impacts, and watershed wildfire protection priorities; and continue efforts on the disposal and use of biomass produced through fuels treatment.

Finally, the Roundtable will continue to inform communities and elected officials along the Front Range about its work. The Front Range Fuels Treatment Partnership Roundtable remains committed to community protection and forest restoration, and this foundation will guide its actions in 2009.

### **LOOKING AHEAD**

Challenges related to forest health; the current mountain pine beetle epidemic; wildfire risk reduction; and watershed, community, and infrastructure protection will continue well into 2009 and beyond — as will the Partnership's endeavor to find solutions. Front Range Fuels Treatment Partnership agencies will continue to tackle current and emerging issues, and successfully implement projects that will help protect communities and restore forest health on Colorado's Front Range.



THE FRONT RANGE FUELS TREATMENT PARTNERSHIP HAS GAINED A REPUTATION — AND RECOGNITION — FOR ITS COLLABORATIVE SUCCESSES.

FOR MORE INFORMATION, PLEASE VISIT THE WEBSITE AT: www.frftp.org

### **ACKNOWLEDGEMENTS**

The 2008 FRFTP Annual Report was developed by the Front Range Fuels Treatment Partnership. Special thanks to the staff of these agencies for their contributions to this report.



COLORADO STATE FOREST SERVICE

NATIONAL PARK SERVICE

ROCKY MOUNTAIN RESEARCH STATION

USDA FOREST SERVICE







