



# Crossing Boundaries

Residents and agencies working together to mitigate hazardous fuels, protect communities from wildfire and restore forest health on Colorado's Front Range

## STATE AGENCIES AND LOCAL RESIDENTS COLLABORATE TO SAFEGUARD LORY STATE PARK, VISITORS AND NEIGHBORS AND RESTORE FOREST HEALTH

### You Can See for Miles

Kathy Seiple, Lory State Park manager, looks over a ridge from the west border of the park. The area where she stands once was dense forest infected with dwarf mistletoe. "It was a wildfire hazard waiting to happen," she remarks.

Now, this location offers a magnificent panoramic view of the foothills, canyons and distant mountains outside of the park.

Seiple pauses briefly, then smiles with certainty. "Our forest treatment project is off to a great start."

"Here, a detrimental fuel hazard — mistletoe-infected ponderosa pine — had existed between the park and adjacent private lands," Seiple says.

Clearing the dead and diseased trees helps reduce wildfire risk by providing a break in the link between ground fuels and tree crowns. This fuels treatment method also helps limit the spread of dwarf mistletoe to healthy trees.

"Along with providing wildfire mitigation to safeguard the park, our visitors and neighboring property owners, the aesthetics and enhancement of our park's natural landscapes within and around it are of utmost importance to our partners and state parks."

The spectacular vista helps make Seiple's points clear.



*This fuels treatment helps reduce wildfire risk and provides a panoramic view from the west ridge of the park.*

### Doing the Job Together

Colorado State Parks and the Colorado State Forest Service are partnering on a forest management plan to thin the dense forests in Lory State Park. The team will help defuse future wildfires in the park and alleviate the spread of fire to or from nearby residential properties.

The project also helps eradicate dwarf mistletoe. Prevalent in much of the park's ponderosa pine forests, this parasitic plant has weakened the trees making them susceptible to insects and

diseases. The goal of both partners is to restore the park's forests to a more historically healthy profile where ponderosa stands of varying ages grow in clumps surrounded by open meadows.

The two state agencies began coordination efforts in 2004. "Colorado State Parks and the Colorado State Forest Service will continue to work together on this project and others into the future to reduce wildfire risk and restore forest health," says Denise White, forester, Colorado State Forest Service – Fort Collins District.

## A Glimpse of the Park

Lory State Park, a popular recreation area, is located only a few miles northwest of Fort Collins, Colo. The park is adjacent to Horsetooth Reservoir and Horsetooth Mountain Park in Larimer County.

"Many neighbors with homes in the forested wildland-urban interface share Lory State Park's northern and western borders," Seiple comments.

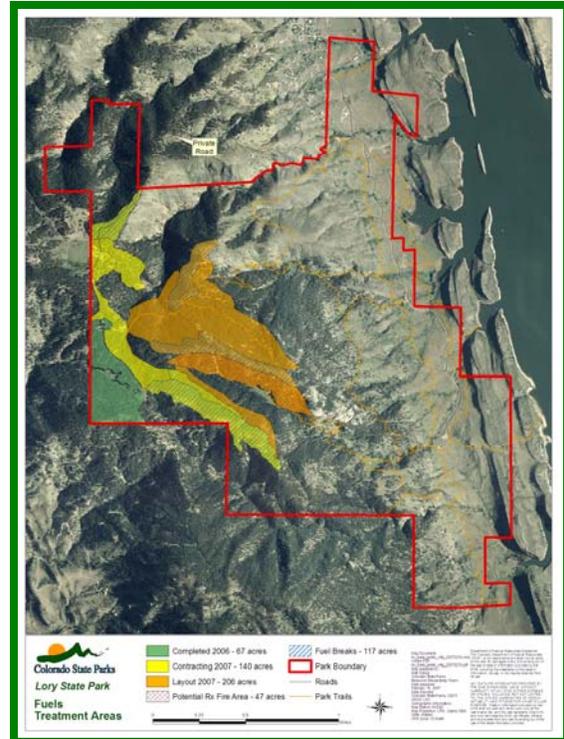
The park manager is proud of this pristine natural resource that consists of nearly 2,500 acres of diverse terrain including ponderosa pine and Douglas-fir forests, meadows and rock-outcroppings, as well as many species of wildflowers and wildlife, waterfalls and spectacular views of the Front Range. A 20-mile trail system is host to hikers, mountain-bikers, horseback riders and other recreationists and nature-lovers.

## The Park Plan

Land Stewardship Associates wrote the Lory State Park Wildfire Hazard and Mitigation Plan and describe the park's vulnerability to wildfire events as "...a buildup in ground fuels and a dramatic increase in forest density."

"Ninety percent of its forests have larger trees with crowns close enough to support intense fires with the potential to spread, unconstrained, along the western sections of the park."

The project map illustrates the Lory State Park boundary, outlined in red. The private roads used to access the project are north of the park.



*A map of Lory State Park shows its boundary outlined in red and shaded project areas.*

Last year, a 67-acre fuels treatment area – shaded in green on the map – was completed. This summer, the second phase, approximately 130 acres (of the 140-acre project area), also was treated. This area is shaded in yellow on the map.

"Following recommendations in the plan, at least 153 acres will be treated in 2008," said White. This section is highlighted in orange on the map.

The plan helped Colorado State Parks and the Colorado State Forest Service launch the project with the first phase of fuels treatment.

## Forest Thinning 101

In May 2006, the first 67-acre section of dense forest was thinned in order to reduce the park's wildfire hazards, remove dwarf mistletoe and restore the

forest to a more resilient condition. Bordered on two sides by private property, the project is located on the west side of the park, the direction of prevailing winds.

“Reducing forest fuels will help diminish the likelihood of fires spreading from private lands to the interior of the park, and will help contain fires within the park, minimizing the spread of fire to private lands,” White explains.

Dyce Gayton, a U.S. Forest Service employee and a resident of the Red Cedar Drive neighborhood that borders the park on the north, comments about the project.

“Most properties on our road are downwind from the prevailing westerly winds. Fuels reduction treatments along the ridge in Lory State Park would likely reduce the potential for wildfire to spread from the park to private property.”

Prior to treatment, the area consisted of many stunted, yet mature ponderosa pine infected with mistletoe.

“In stands where mistletoe was either not as extensive or non-existent, individual trees, or groups of trees, were removed to reduce fuels. This method of thinning left all sizes of trees in random clumps, which is how ponderosa pine stands grew before the era of fire suppression,” said White. “We now have more diversity in the treated forest stand structure, which is desirable because it will be more resistant to insect and disease epidemics and catastrophic wildfire.”

To control dwarf mistletoe in areas where all trees were infected, small clearcuts – the removal of all trees in a stand – were created.

White says that these areas have excellent grass and forb growth, and that some are next to natural meadows where sun-loving ponderosa pines were encroaching.

Forestry experts expect to see healthy ponderosa pine regeneration in areas treated in this manner.

Most ponderosa pine and Douglas-fir trees were mechanically masticated – or chewed.

A Hydro-Ax – a large articulated tractor with an eight-foot wide mower-mulching head mounted on the front – was used to masticate the first 67 acres.



*The Hydro-Ax is hard at work masticating trees on the first 67 acres in Lory State Park.*

The mulching head is like a huge, powerful lawnmower that can mulch trees as large as 10 inches in diameter.

The Hydro-Ax distributes the woody debris relatively evenly over the ground, which helps mulch the area. “Decay of the masticated chunks returns nutrients to the soil, allowing for new vegetative growth to thrive later,” White says.

The Hydro-Ax often is used on projects of this nature because it has rubber flotation-type tires that cause little disturbance to the ground’s surface.

White said wildlife also will benefit from the treatments. “Two to five large-diameter mistletoe-infected trees per acre were girdled – a method that kills the tree but leaves it standing – so insect food, nesting and perching sites will continue to be provided for them. Some dead standing trees, too large to masticate, also were left for wildlife to use.”

Other infected trees were cut, de-limbed and left on the forest floor to provide natural woody material for organisms and animals.

“These techniques simulate a natural tree-killing event,” White said.



*The contractor girdles a dwarf mistletoe-infected ponderosa pine.*

## Collaboration Equals Success

To visit the fuels treatment area, Seiple drives by private properties located just north of the park. She takes a four-wheel drive vehicle on about three miles of steep residential road through the Red Cedar Drive Road Association neighborhood, and then continues up rugged terrain on another winding private road.

“We are very grateful to our neighbors for giving permission so our forestry contractor can use their roads to access this remote site in the park,” says Seiple. “This project wouldn’t have been possible without the wonderful relationship that has developed between our neighbors, the Colorado State Forest Service, the forestry contractor and Colorado State Parks.”

White agrees. “The interaction between our partners in this project has allowed us to complete the fuels reduction treatment areas more proficiently.”

Gayton adds that “short-term impacts to property owners, such as additional use of the road by contractors during fuels reduction treatments, are offset by

the long-term benefits of hazardous fuels reduction.”

## From Woody Debris to Lush Flora

When Seiple arrives at the first completed fuels treatment site, she walks through chunks of decomposing pine trees that now serve as mulch for young vegetation. Seiple reaches down to display a delicate wildflower between her fingertips and expresses satisfaction with the new look of this section of the forest.

Now, grasses, wildflowers and young sprouting pine poke through the natural debris and are surrounded by healthy trees that were left to thrive. “This area came alive this year. I wouldn’t have believed it after seeing the large pieces of wood left scattered on the ground last year.” Seiple also noticed signs of more wildlife coming to the newly rejuvenated forest.



*Seiple displays a delicate wildflower growing amongst the woody debris.*

“Nature is taking care of its own now,” she says.

It’s obvious that this park manager is pleased with the results of the project.

Lory State Park visitors and wildlife will enjoy the change, and what was done will help keep the park, its neighbors and visitors safer from wildfire.

“Our partners each brought unique expertise to the table. We worked through any concerns and shared common goals

— to preserve the health of the forest and its wildlife, and to protect people from wildfire as best we can through mitigation. We have a win-win situation. Just look at the landscape now,” Seiple said.

After touring the park’s completed fuels reduction areas this summer, Gayton remarks, “It was encouraging to see how quickly the visual impacts from the treatments completed last year have recovered.”



*Vegetation recovery is seen in Lory State Park where fuels treatments were completed in 2006.*

A hike up Westridge Trail in Lory State Park will take you along the western border where this project is beginning to change the appearance and sustainability of Lory State Park’s forests — for the better. Take time to look around and you might be pleasantly surprised at what you’ll discover while you’re there.

For more information about this project, contact:  
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October 21, 2007

Photos by: GayLene Rossiter  
& courtesy of  
Colorado State Forest Service