



**Kern River Ranger District  
Community Fuel Reduction Projects  
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The large wildfires in the summer of 2000 and 2002 have sharpened our focus on fuel accumulation on national forests and other public lands. During the summer of 2000, wildfires burned 8.4 million acres in the United States, and during the summer of 2002, wildfires burned 6.9 million acres.

The ever-increasing number of structures and people in California wild lands and the growing importance of the forest's natural resources create an ever-growing need for fire prevention and planning for inevitable fires that will occur in and around our National Forests and Wild land Urban Interface (WUI).

WUI is defined by the National Wildfire Coordinating Group (NWCG) as "the line, area, or zone where structures and other human development meet or intermingle with undeveloped wild land or vegetative fuels". This interface includes all areas where developed lands, such as homes, businesses or agricultural lands, meet undeveloped lands, such as naturally appearing ecosystems like grasslands, woodlands or forests.

Community fuels reduction efforts have focused on the creation of defensible space and shaded fuel breaks, reducing structural ignitability, as well as implementation of forest stewardship. Treatment usually includes one or more methods including the use of prescribed fire, mechanical treatments and/or thinning.

Mechanical thinning, as the term implies utilizes machinery such as chippers for small trees, limbs and branches. Prescribed fire is the use of fire under specific environmental conditions to achieve forest management objectives.

Today, prescribed fire is applied to millions of acres in the United States. A single prescribed burn can achieve multiple benefits. A prescribed burn that consumes more dead fuel than it creates will reduce the fire hazard and may also be used for wildlife habitat, manage competing vegetation, control insects, improve forage for grazing, perpetuate fire dependent species, prepare sites for seeding and/or

improve appearance or access. In the wild land-urban interface, prescribed burns are often constrained not only by weather conditions, fuel and soil moisture, and other demands, but also by the impacts of smoke.

Implementation of these projects, beneficial to both the public and private lands, are conducted by local Forest Service prescribed fire managers who assess the community landscapes following standard criteria: fuels hazard, ignition risk, historical fire ignition, fire return interval, values and protection capabilities.

### **Riverkern Hazardous Fuels Reduction Project**

The Riverkern hazardous fuels reduction project is one such project within the small rural community of Riverkern within Tulare and Kern Counties on the Sequoia National Forest. The project size covers a total of 75 acres.

The community is home to approximately 300 residents, some with homes and property lines within 20 feet of National Forest land. The project was well accepted by the majority of residents. Initially, scoping was performed and public education was achieved through community meetings and flyers inserted into their local water bills.

The primary objectives for the project are:

- 1) To create a defensible space around the community of Riverkern.
- 2) To reduce the amount of natural fuels.
- 3) To reduce the threat of wild land fire from entering or leaving the community of Riverkern.

A shaded fuel break was constructed 300 feet wide on the north, east and south sides of the community. A shaded fuel break is a linear path through a forested area in which surface and **canopy fuel** has been altered but where significant overstory is retained to shade surface fuel.

The fuel break was constructed in two phases. Stage 1 consisted of the construction of the first 150 feet adjacent to the property boundary to provide some initial protection for the community. To minimize impacts to visual quality jackpot burning (the burning of pockets of heavy fuel concentrations) was not conducted on this project. Vegetation was cut and piled at least 75 feet from the forest boundary and burned in accordance with an approved burn plan.

Today, the Riverkern project has been successful and is in “maintenance” mode. Approximately 25 acres of piles (brush and limb) are planned to be burned this winter. Regrowth work and fuel break maintenance are repeated annually.

## **Kernville Hazardous Fuels Reduction Project**

The Kernville Hazardous Fuels reduction project consists of two separate units of Forest lands – the Burma segment and the Bowman/Luxton unit. A need existed to reduce the continuity and density of fuels on Forest land adjacent to privately owned homes in Kernville.

The need for a network of shaded fuel-breaks as well as the continued practice of defensible space was identified in, and has been endorsed by, the Kern River Valley Community Wildfire Protection Plan that was issued by the Kern River Valley Fire Safe Council in 2002, and by the Forest analysis of fire hazard conditions in the area. The reduction work was accomplished by reducing the continuity and density of the brushy fuels, limbing up larger trees, and disposing of dead vegetation. Chain saws and other hand tools were used to perform the thinning.

The **Burma** unit is approximately 33 acres at the west end of Burma Road (northwest corner of the community of Kernville) adjacent to about 8 private homes. The fuel reduction work spans a 400 foot wide buffer on forest land adjacent to private homes. Local fire suppression crews and organized crews, from Porterville, accomplished this work by cutting thick, potentially hazardous fuels, using chainsaws, and “limbing up” trees. The cut brush was piled for chipping and/or burning in the winter when it is safer to burn.

The **Bowman/Luxton** unit is approximately 24 acres located on the west side of Bowman Road (South end the community of Kernville) and adjacent to 25 private homes. The treatment area extends from private property boundaries onto Forest lands about 100 feet in width.

The purpose of the treatments are to increase defensible space on Forest land in order to reasonably protect houses located on private property close to the Forest land and associated wildlife habitat resiliency. The piles were stacked six to eight feet in diameter and were left in place for wildlife habitat purposes. Habitat is a combination of food, water, shelter, and space arranged to meet the needs of wildlife; treating fuel in ways that optimize conditions for wildlife.

Retention of a certain amount of fuel will provide cover for small game wildlife in general and they integrate ecosystems within the community. Cover is generally plant material that shelters animals from the weather, provides escape for small animals fleeing predators, or gives concealment to predators when hunting.

The projects have significantly reduced the threat of wildfires burning from Forest land on to private property and damaging or destroying houses and associated structures, improve fire fighter and public safety, and improve protection of adjacent wildlife habitat.



The Rincon Fire Crew cut and pile brush adjacent to a home during the fall of 2006. The brush piles near roads were shredded in a chipper. Piles too far away to be reached by a chipper will be prescribed burned this winter.



Aerial view of the Burma unit. Reduced brush can be seen on the hillside above, and three sides surrounding, the Burma Road development.



Aerial view of Bowman/Luxton unit showing reduced brush and wildlife piles on the right center portion of the photograph. Fire crews cut and removed dead plant material in willow and cottonwood adjacent to homes in the center and upper left portion of the photograph.

The Kern River Valley Fire Safe Council, the US Forest Service, Kern County Fire Department and the Bureau of Land Management have a total of 27 such projects planned, completed, or in various stages of completion in the Kern River Valley.