



SUCCESS STORIES



Western Bark Beetle Initiative Region 5

STRIVING FOR HEALTHY FORESTS

A Partnership Between Forest Health Protection and the Tahoe National Forest



Figure 1. Initial tree density.

In 2005, the American River Ranger District, Tahoe National Forest, utilized Forest Health Protection funds and authorities under the Healthy Forest Restoration Act to thin over 300 acres of overcrowded conifer plantations in the Greek Store area. The plantations were created in the late 1980's and were densely stocked with ponderosa pine and evergreen shrubs. Tree density exceeded 450 trees per acre and the shrubs were over topping the trees (Figure 1). Western pine beetle activity was increasing in the area; overcrowding and shrub competition was weakening the plantation trees.

The contract cost was \$436 per acre and the contractor used a low ground pressure machine with a masticating cutting head to cut and shred the shrubs and excess trees (Figure 2). The largest, healthiest tree was left every 20 feet and the surplus trees and shrubs were shredded and left in place. Residual tree density was 120 trees per acre.

In addition to improving the health of the plantation trees, the surface fuels were reduced, the crowns density was reduced and the largest healthiest trees were left on site. This area is managed for an old forest emphasis. Several California spotted owl and Northern goshawk Protected Activity Centers (PACs) are adjacent to these plantations. The plantations are also adjacent to the most northern stand of the Giant Sequoia, the Placer County Big Trees Grove. Prior to this treatment, the scattered plantations were full of weakened trees and pockets of dead adding to the fuel buildup. Healthy forests with fast growing trees free of insects, disease, shrub competition, and surface and crown fuels is emphasized in this old forest area.

The thinning operation was developed with an interdisciplinary approach with involvement from the wildlife biologist, fire and fuels specialist, silviculturist and Forest Health Protection staff.



Figure 2. Low ground pressure machine masticating shrubs and excess trees.



Figure 3. Post-treatment residual stand.

The treatment compliments other thinning and fuels reduction work that was previously completed in the area to further protect the PACs and giant sequoia grove. The plantation trees are free to grow and their susceptibility to insects is greatly reduced. The plantations have well spaced, healthy trees, free of overcrowding and insect activity that are more likely to be protected if a catastrophic wildfire was to move through the area (figure 3).

The mastication treatment altered the ladder fuels and shrub cover resulting in a well spaced plantation with open crowns. Slash was chipped/shredded and matted on the ground. During September 2006, the Ralston Fire was moving toward the Placer County Big Trees Grove and contingency lines to protect the Big Trees were planned. The Fire Team determined that the 2005 mastication work funded by FHP located between the advancing fire and the Big Trees grove modified the fuel enough in the area to provide an effective break between the advancing fire and the grove of trees. The masticated plantations were complemented by dozer lines to create a "fuelbreak".

