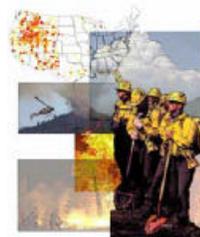


# National Fire Plan

Sequoia National Forest  
Pacific Southwest Region  
California



---

## Interim Fuels Reduction Treatments in Dry-Eshom Sub-watersheds Hume Lake Ranger District

The Dry and Eshom sub-watersheds (13,000 acres) are found in the transition zone of mixed conifer and mixed chaparral on the western slope of the southern Sierra Nevada Mountains. The project area is approximately 5,500 acres of which 1,685 acres will be treated and broken out into 25 units.

The project objectives were to reduce the threat of stand replacing fire and improve forest health. The Hume Lake Ranger District identified private property and structures, giant sequoia groves, spotted owl protected activity centers and plantations as existing resources susceptible to high intensity wildfire. Treatments prescribed to reduce fuels and return the forest structure to an ecosystem more resilient to wildfire consisted of thinning from below, sanitation cuts and prescribed underburning.



*Untreated Fuels in Dry-Eshom*

Once thinning was completed, the Silviculturist grew concerned about the effects of prescribed fire on the residual stand because of remaining ladder fuels within the project area. The main concern was a need to maintain a density of large trees within 10% of the predicted post harvest stocking level. Typically, as in this instance, prescribed burning was tied to the reduction of surface fuels in the forest vegetation instead of reducing larger trees and ladder fuels. Therefore, the loss of additional trees burning understory burning could have a negative effect on the forested stand.

### **In preparation of burning**

In 2002, National Fire Plan money was used to pay for mastication of the vegetation. This treatment removed small trees that act as ladder fuels while the desired leave trees remain undamaged.



*Mastication after harvest, prior to burning*

An understory burn was completed to eliminate the fuels from harvest and the mastication. District staff discussed the possibility of leaving the fuels on the ground to insure the survival of the residual stand; however, flammable fuel loading characteristics were present outside of the project area as well, prompting the understory burn.



*After mastication and prescribed burn.*

After the understory burn, results from monitoring showed that the stand remained within 10 percent of predicted post stocking levels, an outcome that ensures no negative effects on the forest after treatments.



*Looking out over Pierce Pond to a unit that has been harvested, masticated and prescribed burned.*

**Accomplishments:** Approximately 622 acres have been underburned, and approximately 20 percent of the project area has been masticated prior to burning.

**Contact:** Diane Travis, Sequoia National Forest Fire Planner, 559-784-1500 ext. 1122