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Subject: Evaluation of Tree Hazard and Pest Conditions At Burnt Ranch and Hayden Flat Campgrounds (FHP Rept. No. N06-03)

To: Joyce Andersen, TRMU Ranger

On March 13, 2006, Dave Schultz (entomologist) and I accompanied Larry McLean, Lindsay Large and Marti Parachini to Burnt Ranch and Hayden Flat Campgrounds. The purpose of the visit was to assess the condition of the trees in the campgrounds and to make recommendations to reduce hazard tree conditions and improve the overall tree health. Dave and I have visited both of these campgrounds and others in the area on several occasions. During one visit to Hayden Flat Campground with Marti Parachini in May, 2004, we pointed out many dead and highly decayed trees, and recommended their removal. During this visit, we saw that many of the same hazardous trees that were identified in 2004 had not been removed, and several have fallen over. While no one was hurt by these tree failures, immediate action is needed to address this situation.

The overstory of both campgrounds consists primarily of Douglas-fir, with scattered incense cedar, ponderosa pine and oaks. Hayden Flat Campground contains several sugar pines as well. Conks of *Phellinus pini*, which causes red ring rot (a heart rot decay), were again noted on many of the Douglas-firs and some of the ponderosa pine. Cores taken with an increment borer confirmed that the decay was extensive in many of the trees. They also revealed a reduction in growth that started about 75 years ago, which supported the general observation that the trees in the two campgrounds are overcrowded and have poor vigor. In addition to the trunk rot caused by *Phellinus pini*, fruiting bodies of *Phaeolus schweinitzii*, which causes a root and butt rot, were also found near the base of several Douglas-fir in Hayden Flat Campground. This decay fungus is commonly associated with older fire-scarred Douglas-fir and the decay in the roots and butt of infected trees can easily cause them to fall over.

In summary, the tree hazard levels in the two campgrounds are high, the stands are overly dense, and the trees have poor vigor and many of the decay problems that are common in older stands. We recommend the immediate removal of the most highly hazardous trees, followed by a general thin to open up the stands and promote the overall health and vigor of the remaining trees.

To help implement this recommendation, the five of us inspected all of the trees in the two campgrounds and marked the most highly hazardous trees for removal. Douglas-fir and pine with numerous *Phellinus pini* conks were cored with an increment borer, and those with less than one-third of their diameter in sound wood were marked for removal. Many Douglas-fir



with extensive *Phaeolus schweinitzii* root and butt rot were also marked. Additional trees were also marked for removal as part of a general thin. In all, 39 Douglas-fir and 7 incense cedar were marked at Burnt Ranch Campground, 57 Douglas-fir and 3 ponderosa pine were marked at upper Hayden Flat Campground, and 8 Douglas-fir and 2 ponderosa pine were marked at lower Hayden Flat Campground.

The marking that was done on March 13 represents a good start to the vegetation management that would help improve conditions in the campgrounds. While the most hazardous trees have now been marked, additional trees remain to be marked and removed as part of a recommended general thin. During this additional marking, trees with the best form and least decay should be chosen to remain. As much as possible, pine, cedar and oak that are in relatively good condition should be kept to enhance vegetative diversity. Throughout this effort, the selection of leave and take trees should strive to maintain the visual and aesthetic quality of the campgrounds. While marking trees in the two campgrounds, Dave and I demonstrated the decision-making processes that take place in weighing all of these considerations.

During our visit, Lindsay Large indicated that once the marking is completed, removal of the trees can be done as part of a timber sale. Several additional campgrounds and recreation sites, including Big Flat, Pigeon Point and Big Bar Campgrounds, as well as Big French Creek Dispersed Campsites and Big French Trailhead, will also be inspected, marked and treated using this approach. In the dispersed sites and trailheads, the highly hazardous trees will be removed, but there will likely be less thinning. While we did not have the time to visit all of the sites on this visit, we are available to assist in the future as needed.

In conclusion, the hazard tree situation at Burnt Ranch and Hayden Flat Campgrounds requires immediate action, and the need for vegetation management in Burnt Ranch and Hayden Flat is great. The treatments that are recommended above, if implemented, will reduce disease and hazard levels, promote the vigor of the remaining trees, and provide greater resilience against future insect and disease attacks. Although many of the trees in these recreation sites are beyond the age when we would expect a large response from thinning, there is reason to anticipate this treatment will help prolong the life of the remaining overstory trees.

If you have any questions regarding the observations or recommendations in this report, please feel free to contact Dave Schultz or me. As always, we are available to assist in any way that is needed.

Pete Angwin
Plant Pathologist

cc: Larry McLean
Lindsay Large
Marti Parachini