



Forest Health Protection Pacific Southwest Region



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To: District Ranger, Feather River Ranger District, Plumas National Forest

Subject: Hazard Trees in Paradise Lake Rec Area and Milsap Bar Campground
(FHP Evaluation # NE05-05)

On May 10, Forest Health Protection (FHP) visited two sites on the Feather River Ranger District, Plumas National Forest, to assess management needs and provide recommendations regarding hazard trees. Danny Cluck (Entomologist) and Bill Woodruff (Plant Pathologist) were accompanied by District personnel Tricia Christofferson, Gary Rogers, Chad Courtright, Brian Brady and Sara Ashkannehjad to the Paradise Lake Recreation Area and Milsap Bar Campground.

PARADISE LAKE RECREATION AREA

At the Paradise Lake Recreation Area, the condition of the trees is essentially unchanged from when FHP visited the site in March 2004. Please refer to FHP Evaluation # NE04-04, *Tree Hazards in Paradise Lake Recreation Area*, dated April 5, 2004. However, one minor change in tree health was observed: the foliage on the sugar pine shown in Figure 2 of the 2004 report appears to have recovered slightly from defoliation caused by needle disease.

Tree hazards still remain in the Paradise Lake Recreation Area as noted in the 2004 report. These hazards can threaten life and property, and need to be addressed. Even though it is impossible to precisely predict failure of the defective trees or branches present in the area, the observed defects generally do not appear to present an immediate danger to the public. However, there are many large dead branches and other defects present high in the crowns of many old trees, especially Douglas fir. Defective branches or tree sections could dislodge during or after high wind events and cause serious personal injury or property damage. An intensive hazard tree evaluation should be performed and trees with

NORTHEASTERN CALIFORNIA SHARED SERVICE AREA
2550 RIVERSIDE DRIVE
SUSANVILLE, CA 96130
530-257-2151

Sheri Lee Smith
Supervisory Entomologist
ssmith@fs.fed.us

Daniel Cluck
Entomologist
dcluck@fs.fed.us

Bill Woodruff
Plant Pathologist
woodruff@fs.fed.us

hazardous defects should be removed or mitigated as soon as practical. High risk hazards which have targets, such as the play ground, picnic tables, parking, or locations where people congregate or linger, should have the highest priority for hazard removal or mitigation.

The amount of decay in the Douglas fir trees with *Phelinus pini* conks is not known. It is suspected that the trees with numerous large conks have advanced decay, but it is not possible to know the extent of the decay in the infected trees without intensively sampling their boles for soundness. A couple of spots near the ground on 2 or 3 large Douglas fir boles with many *P. pini* conks were sampled in 2004. Large volumes of advanced decay were not located, but this does not confirm the safety of these trees. Tree sections weakened by decay could be present at locations in the boles which were not sampled. For this reason, as suggested in the 2004 report, trees with the largest and most numerous *P. pini* conks could be felled and sectioned to assess the amount of decay at various points along their boles. If excessive decay exists, then trees with fewer and smaller conks would be progressively felled, sectioned and evaluated until it is determined that only sound trees remain. If this felling and sectioning evaluation process is implemented, Bill Woodruff would like to participate.

MILSAP CAMPGROUND

At Milsap Bar Campground, many of the oak trees have dead branches and/or decaying boles. These defects make the trees hazardous if: 1) the branch or tree is weakened to the point of failure; and, 2) the branch or tree has a high probability of striking a target (ie. person or property) and causing injury or damage. As discussed with the group, it is recommended that the trees in Milsap Bar Campground be thoroughly evaluated for defects and targets as soon as possible, to identify tree hazards. Once identified, tree hazards should be mitigated. Mitigation includes anything that will reduce or eliminate a hazard. It could mean removing the defective tree, or part of a tree, or moving a target (eg. picnic table, fire place, tent pad, parking spot, or whole camp site). Mitigation could also mean identifying the hazardous conditions with signs, flagging, barricades or closing the campground until the hazards are mitigated.

It is important to know, that in developed recreation areas, identifying hazards by signing does not relieve the Forest Service from liability for injury or damage caused by known tree hazards. Liability can only be eliminated by removing the tree hazards or closing hazardous areas. Liability can be minimized by implementing an on-going tree hazard identification and treatment program for recreation areas. This program would entail periodically examining trees in recreation areas, removing or mitigating those hazards, and monitoring questionable hazards into the future. An additional copy of USDA Forest Service publication: *Long-Range Planning for Developed Sites in the Pacific Northwest: The Context of Hazard Tree Management* is included to help guide District personnel in improving the hazard tree program at Milsap Bar and other campgrounds on the Feather River Ranger District.

The Northeast FHP California Service Area has access to an instrument which probes trees to locate internal decay or other hidden defects. This instrument is called a Resistograph.

As discussed in the field, the Resistograph is able to detect decay in trees by probing discrete points on the bole. Since advanced decay can exist anywhere in a tree (including locations near the ground where probing with a Resistograph is normally performed) it could be necessary to probe numerous suspected areas of decay at many locations up, down and around the bole in order to be reasonably sure that a tree is sound. The Resistograph is most useful in determining the amount of sound wood in trees where advanced decay is suspected to occur at a limited number of places in their boles or branches after completing thorough visual examinations. It is also useful in locating the size and extent of internal defects, such as cracks. The resistograph has limited use in trees, such as the Douglas fir infected with *P. pini* at Paradise Lake, which could have advanced decay in their boles at locations which would require ladders, mechanical lifts or tree climbers to access. Sampling these trees could be expensive and is best performed by professional arborists.

Please review the information in *Long-Range Planning for Developed Sites in the Pacific Northwest: The Context of Hazard Tree Management*. We hope the information will be useful in improving the hazard tree management program for the recreation and administrative sites managed by the Feather River Ranger District. If you want to schedule an Resistograph evaluation otherwise need further assistance, please contact Bill Woodruff at 252-6680.

WILLIAM C. WOODRUFF
Plant Pathologist

DANNY CLUCK
Entomologist

cc: Brian Brady, Mike Mateyka

Enclosure: *Long-Range Planning for Developed Sites in the Pacific Northwest:
The Context of Hazard Tree Management*