

A six million dollar jury verdict was rendered in favor of a plaintiff severely injured on a logging job in Pennsylvania.

The jury found against the landowner, road builder and mill in early 2003. The road builder had undercut and left a standing tree that later fell during logging operations severely injuring a worker. Mark Gordon and Tim Smith, attorneys representing the plaintiff gave the following advice at an October risk symposium and printed in the Winter 2003 SFI of PA newsletter.

- Despite contractual language, landowners, foresters and loggers must be aware that they each hold responsibility.
- Safety responsibilities should be the subject of on-going communications between landowner, forester and harvester.
- Certain hazards are more readily recognizable by a forester than a cutter.
- Landowners must make some reasonable effort to know and inspect their premises periodically.
- While there are some duties that are not delegable, safety obligations must be addressed in contracts between landowners and foresters, and between landowners and timber harvesters.
- A contract will not protect a landowner, forester or logger from being sued.
- A properly prepared contract is the best manner to shift financial responsibility. Every contract should include an indemnity provision and a provision requiring adequate insurance to support the promise to indemnify.



The following article by Chris LeDoux addresses proper road and trail clearing procedures that were an issue in this trial.

DETERMINING SAFE CLEARING LIMITS FOR SKID ROAD/TRAIL CONSTRUCTION

Chris LeDoux, USDA Forest Service

Most of the timber harvested in the United States is extracted by ground-based skidders and crawler/dozer systems. Ground-based systems require a primary transportation network (skid trails/roads) throughout the area being harvested. Following cutting, logs are skidded or dragged along these surfaces to the landing, where they are loaded onto trucks and transported to processing plants. The degree of excavation/construction on these skid roads/trails varies with the steepness of the terrain and the size of logs/logging vehicles. Excavation/construction creates certain hazards that could damage property and threaten human lives. In one incident that led to a court case

(Melvin Willard White vs. Wenturine Brothers Lumber, Inc., ICI Explosives, U.S.A., and American Forestry Consultants, vs. John Bouch Logging, In the Court of Common Pleas of Westmoreland County, Pennsylvania, Civil Division No. G.D. 382-2000, 2003), excavation undercut the lateral support of a tree that was left on a vertical (vs. backsloped) cutbank. The tree later fell, severely injuring a logger.

The construction of trails on flat or gentle terrain requires little excavation. Trees, vegetation, or other obstacles are simply pushed out of the way with a bulldozer to create a trail that can be negotiated with a skidder, crawler tractor, farm tractor, or forwarder. Construction on steep terrain requires considerable excavation and movement of earth. On such terrain, the trail must be carved out of the hillside, which moves or otherwise displaces obstacles such as soil, rocks, and trees.

The following should be considered in judging whether to remove a tree or other obstacle from a cutbank during or following trail excavation:

- Sideslope (%). Steep slopes (= 25%) are unstable and require more excavation on the uphill side and more fill on the downhill side. Very steep slopes require full bench roads.
- Soil, solid/loose. Loose rock, etc. moves easily.
- Distance from cutbank edge. The closer the tree/obstacle is to the cut edge, the more likely it will fall.
- Moisture/aspect. Once soils reach the plastic limit, they are nearly liquid in consistency.
- Size of tree/obstacle. The larger the tree/obstacle, the greater amount of mass is on the cutbank.
- Undercut roots/soil. These remove a tree's attachment to the ground, undermining stability.
- Species of tree. Certain species are shallow rooted while others have deep taproots.
- Tree health/vigor. A sound, healthy tree with a full crown always has a strong anchoring mechanism (root system).
- Clearing limits. Should be set and maintained where applicable.

Safety guidelines were developed that can be used to minimize or eliminate hazards.

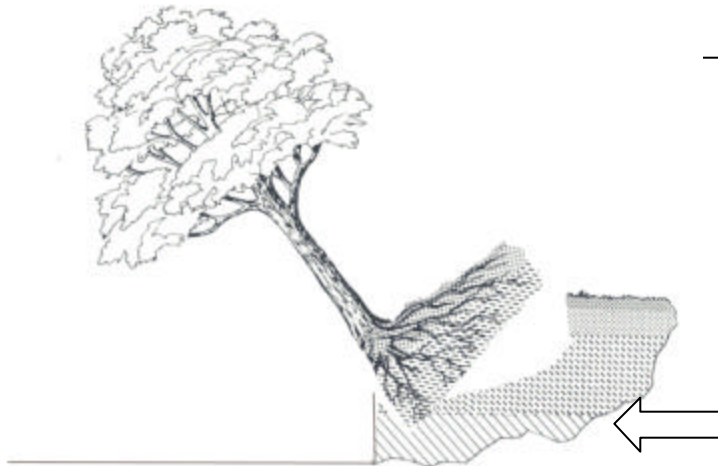
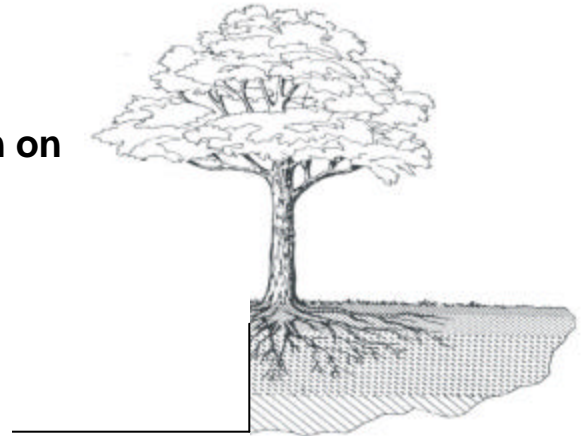
Considerations for Managers

The construction/excavation of skid roads/trails creates certain safety hazards that can be eliminated and/or mitigated by observing practical and safe clearing limits during and after trail construction/excavation. The decision rules developed from this research should be helpful in determining guidelines that will result in a safer workplace. On a practical level, if there are doubts about a tree's stability, that tree should be removed.

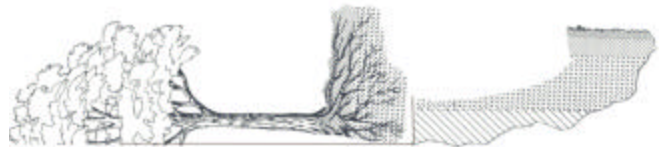
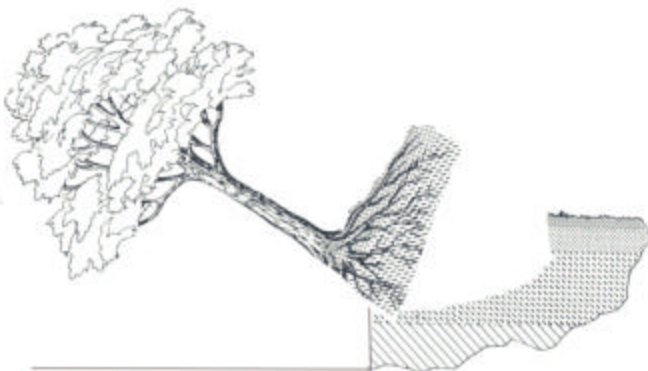
Exercise caution when building roads!

Pay attention to the effects of excavation on steep slopes.

Follow recommended practices.



During excavation of a skid road, if a portion of soil and roots near a tree are removed, the tree will become unbalanced and unstable, and could fall over, creating a hazard.



For more information or to obtain a copy of the report contact Dr. Chris B. LeDoux; USDA Forest Service, 180 Canfield Street, Morgantown, WV 26505; telephone: 304-285-1572; email: cledoux@fs.fed.us.