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# TIMBER HARVESTING GUIDELINES FOR NEW JERSEY



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## FORESTS ARE RENEWABLE

Forests supply people with products they need. Forests provide wood, water, paper, wild-life habitat, recreation, and much more. Without each, life would change greatly. People would suffer.

Forests are renewable. New crops follow each harvest. But harvesting must be planned properly to give continuing abundance of trees and animals. Soils must be protected to keep lands stable. And streams should remain natural and free flowing.

Members of the New Jersey Forestry Association and New Jersey Chapter, Society of American Foresters recognize the importance of natural resources and their use to satisfy people's needs. Foresters urge care in logging and continued use of methods that keep forests stable and productive. To help, the New Jersey Forestry Association and New Jersey Chapter, Society of American Foresters has adopted timber harvesting guidelines for use in New Jersey. The guidelines list ways to prevent problems and safely harvest products from the land.

Timber harvesting is watched closely in New Jersey. The guidelines must be coupled with good judgment, plus a determination to protect land and resources against careless acts. When applied with the proper spirit, they can be helpful to persons planning a timber harvest.





## WHAT IS INVOLVED

Good logging begins with good planning. First, identify potential problems. Work out solutions. Then use suitable methods.

Here are some things to look for and do in logging.

## STREAMS AND WATER

Siltation comes from erosion when soil washes into streams and lakes. With properly planned logging, accelerated erosion never starts. Streams can be protected from careless disturbance and water quality kept natural.

What practices will protect streams, lakes, ponds and marshes and maintain water quality?

**RECOMMENDATION:** *If there is a way to avoid crossing a stream, include it in your plan.*

- Keep stream crossings to a minimum and plan them carefully.
- Check with owner for old crossing made hard by rocks for farm machinery roads.
- Find crossing sites that have low stable banks, a firm stream bottom, and gentle slopes along the approaches.
- Cross at a few carefully chosen places, rather than any place that seems convenient.
- Use temporary culverts, bridges or runways where stream bottoms or banks would be otherwise damaged and remove them after use.

**RECOMMENDATION:** *Protect stream banks by controlling skidding and felling close to the stream.*

- Avoid cutting trees growing on stream banks that keep the banks in place and maintain shade over the water.
- Do not skid up and down the active stream channels or intermittent streams.
- Keep skidders back from the water and stream banks and winch off any logs that lie close to the bank.
- Directionally fell trees so the tops land away from stream, keeping debris out of the water and the skidders farther away from the banks.
- Design cutting blocks to leave a buffer strip along both sides of flowing streams, ponds and marshes. This keeps the water shaded and prevents heating up by direct exposure to the sun. Cut selectively in this strip.

## ROADS AND SKID TRAILS

Soil uncovered by skidding and truck traffic can erode if water runs over it. Conscious thought should be given to skid trail location and approved by the landowner, his agent, or forester. The location of skid trails should not be based solely on the loggers discretion. Good design and proper maintenance provide the best prevention.

Poor drainage leads to mud holes. Erosion occurs if water is not diverted off the road surface. The steeper the slope, the greater the danger.

How can erosion be prevented from landings, logging roads, skid trails and off steep slopes?

**RECOMMENDATION:** *Plan carefully for the protection of slopes exceeding 30 percent.*

- Winch logs off steep slopes where possible and minimize the number of skid trails and the amount of skidder traffic.
- Log steep slopes during dry weather when soils are dry, or log when the ground is frozen and snow covered.
- After logging, regrade roads and primary skid trails and install diversion devices as needed.

**RECOMMENDATION:** *Properly locate, design, and build all roads and skid trails.*

- Keep roads and skid trails out of wet and poorly drained spots. Locate roads away from tops and toes of banks and slopes. This should keep machines from getting stuck,

and make skidding and hauling more economical.

- Avoid sharp curves which can cause bank scraping and tree damage.
- Provide ways to divert running water off roads and primary skid trails when slopes exceed 10 percent.
- Keep roads back from streams, ponds and marshes (set them back 100 feet on slope less than 30 percent, and 150 feet from steeper ones.)
- Do not run ditch water directly into a stream (stop roadside ditches before a stream crossing and divert the water away from the stream.)

**RECOMMENDATION:** *Select landing locations that avoid erosion problems.*

- Keep landings out of low spots and poorly drained places.
- Put landings on gently sloping ground that will give good drainage.
- Set back landings at least 200 feet from streams, ponds, lakes, and marshes (that will reduce chances of siltation from erosion off the landing.)
- Grade level landings after use and reseed if needed.

## ROADSIDES ALONG MAJOR TRAVEL CORRIDORS

Most people object to logging slash, hung-up trees, poor utilization, deeply rutted roads, and scarred landings. Plan ahead and be aware of the landscape. Logging just a little differently usually keeps the roadside area looking good.

What will help to make jobs look better along travel corridors?

**RECOMMENDATION:** *Comply with New Jersey's Forest Fire Laws.*

- Keep logging debris back from roadways and forest access ways.
- Do not allow tree tops to accumulate to such an extent or in such a manner as to facilitate either the origin or spread of forest fires.
- Prescribed burning for hazard reduction requires a permit.

**RECOMMENDATION:** *If logging along major travel corridors isn't screened by a hill, bank, or other topography, maintain a scenic buffer strip along the roadside.*

- Directionally fell trees so the tops land away from the road (that puts the slash further

out of sight and reduces needs for top lopping.)

- Use all merchantable products in each tree (people don't like to see unused logs and bolts left lying in the woods, and if you cut them out, it automatically lops off many of the large branches.)
- Pull down hung-up or partly fallen trees, fell bent over and broken off trees and use merchantable material.
- Use care in skidding to protect understory vegetation (shrubs and saplings make a good natural screen.)
- Keep skidders back in the woods and off the right-of-way (that keeps the road banks from getting rutted and helps keep skid trails out of sight.)
- Cut lightly within 100 feet of the forest edge by keeping at least 50 square feet per acre of basal area in residual trees, including some big ones (that keeps a forest-like appearance along the road.)
- Keep in mind that trees standing directly at the edge of the woods provide the best screening.
- Keep stumps low.

**RECOMMENDATION:** *Wherever possible, keep landings out-of-sight, dress-up landings and access roads after use.*

- Put landings behind a hill, bank or land form that hides them from the road, or set landings back into the woods as far as practical (use a set-back of at least 200 feet whenever possible.)
- Build access roads somewhat curved (it is harder to see around a curve than a straight road.)
- Lay out landings so the long axis lies perpendicular to the road.
- Keep entrances from the road narrow to reduce visibility from the roadside (widen the road once back in the woods but keep the entrance narrow to restrict visibility.)
- Clear landings after use by burying debris or dragging waste material back into the forest (actually, if you skid out only useable parts of the tree, there won't be much waste at the landing.)
- Back blade landings and access roads so they are smooth, level and free of ruts and mud holes (then they look better and should rapidly seed into new vegetation.)
- Put in diversion devices at places where water might run down the road and wash off soil into roadside ditches.

- Regrade and clean ditches along roadside and close temporary roads.
- Where needed, seed access roads, landings, and ditches (especially where they come close to the highway.)
- Pick up oil cans, lunch wrappers, broken cable and other junk daily.

## CEDAR AND HARDWOOD SWAMPS

In both Atlantic white-cedar swamps and hardwood swamps, the site is very fragile and can be destroyed if good logging practices are not adhered to. Most of the swampland is suitable only for growing good quality lumber. Harvesting wood from these swamps is important to the landowner and wood-using industries in the state.

How can the high productivity of these swamps be maintained?

*RECOMMENDATION: Maintain high professional planning and harvesting standards by skilled foresters and woodsmen in Atlantic white-cedar swamps.*

- Where cedar swamps are bisected by an active stream, consider using the stream as a cutting boundary.
- Cutting boundary along stream should be as short as possible.
- Cedar should be clear-cut.
- Active streams should be kept free of debris.
- Take special care to keep petroleum products from swamps.
- Use a winch and corduroy road system as much as possible.
- Keep scouring of the transition zone between swamp and upland to a minimum by limiting swamp entrance and exit roads.

*RECOMMENDATION: Maintain high professional planning and harvesting standards by skilled foresters and woodsmen in Hardwood swamps.*

- Select appropriate silvicultural systems.
- Select proper skid trail routes.
- Keep planned stream crossings at a minimum.
- If possible, cut one side of the stream at a time.
- Schedule logging in driest periods of the year.
- Locate loading areas in upland portion.
- Use winch as much as possible.
- Follow shortest distance to upland.
- Skid as little as possible in the swamp.
- Give crews proper supervision.

## TRY THEM . . . THEY WORK

Good stewardship of natural resources means wise use and provides a proper inheritance for future generations while caring for our needs today.

The N.J. Forestry Association and the New Jersey Chapter, Society of American Foresters calls upon landowners, timber harvesting contractors, forest managers and forest industries to harvest carefully. Everyone must work to keep our forests productive through safe and well planned logging. These guidelines list practices that prevent problems.

Use them. They are easy. Do your part. Help in wisely using our forest resources.

These timber harvesting guidelines for New Jersey are adapted from those developed by the New York Section, SAF and Empire State Forest Products Association.

For more information contact:

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