

12. Timber harvesting as a stewardship tool - opportunities and pitfalls.

By Peter Smallidge

As a forest owner, the time may come when you need to know some basic guidelines pertaining to the sale of timber from your property. Many people acquire woodland with no intention of selling any timber, but eventually someone will knock on your door and offer to buy some of your trees. In the event you decide that cutting some trees might be useful, how do you know the best action to take and the best sequence of events? As a forest owner, you will want to have some basic knowledge of the timber sale process and those who have an interest in your woodland.

Apprehension about a timber sale often results because most owners (1) don't know the value of their timber and don't want to sell too cheaply; (2) fear their woodlot or forest will be ruined as a result of timber harvesting; or (3) think that timber



Forest owners enjoy their woods, but may be confused by opportunities and risks associated with cutting trees.

harvesting causes environmental damages. While all these fears can be true, you can avoid them through careful planning and selecting competent professionals as service providers. Ultimately, you or your agent needs to control the timber harvest. Sales that are “logger's choice” are rarely in the best interest of the forest owner. Think about it this way, if you have a yard sale or a garage sale and someone offers you \$4000 to pick and chose from throughout your house you would (or should) say no, then why give someone unrestricted access to your timber.

Why should you cut trees?

People who want to cut your trees will have an arm-length list of reasons why you should cut your trees. Ultimately, because you own them, you get to decide if, when, and which trees to cut. Timber harvesting, or cutting trees, is best considered as a tool to help a forest owner move closer to their



Cutting trees can reduce competition for sunlight. Leave the trees that have the most vigorous crowns.

long-term ownership objective. Harvesting is a means to an end.



Select a logger who is trained and who carries about the quality of their work.

Many people think of timber harvesting as something that forest owners do to make money. You can make money from cutting trees, but before you agree to cut trees you should have a management plan that describes why you own the forest and what you want from the forest. One thing you might want is money, but maybe also a place to hunt, a place for solitude, or a place to bird watch. With your management plan in hand, you and your forester can decide if a timber sale will move your forest and you towards your desired goal. Timber harvesting can be used to create certain types of wildlife habitat, to establish a trail for hiking or skiing, to regenerate a forest, to improve forest health, or to create a certain aesthetic quality. Often, as a result of these goals, revenue is generated. Harvesting with the sole purpose of making money is usually a shortsighted and unsustainable practice.

Forest owners often say “I have some 14” diameter maple (or cherry or whatever)...is it time to cut them?” Again, cutting trees is a means to an end. Those trees can be cut, they are of marketable size, but they should be cut only if it brings the forest owner closer to their personal goals of ownership.

Who’s a forester and who’s a logger?

The three groups of people involved in a timber sale are the landowner, the forester, and the logger. The sale works best, from the landowner’s perspective, if each of these people are involved and if each knows their appropriate role.

The landowner needs to have a clear understanding of why they want to sell the trees, what they want the forest to look like after the sale, and what tax or legal constraints they need to address. A good forester, one who represents all the interests of landowner, can help the landowner by discussing the options associated with these considerations. The landowner should be in charge of the whole process, but may delegate some of the details to the forester.

A forester is someone trained professionally to grow trees and healthy forests in a way that meets the landowner’s goals. That said, there is no legal definition of a forester in New York. Other states define foresters through licensing and certification. The profession of forestry recognizes foresters from 2- and 4-year schools of forestry. Foresters who can help with various aspects of a timber harvest include public foresters with the NYS DEC and private foresters who are consultants or who work for a wood-using industry like a sawmill or a paper mill. Another group of people are timber brokers who buy and resell. Timber brokers focus on their own profitability and not on the landowner goals. Avoid timber brokers. Credentials for foresters might include Certified Forester® through the Society of American Foresters, membership in the Society of American Foresters, membership in the Association of Consulting Foresters, or inclusion on the NYS DEC list of Cooperating Foresters. Foresters should annually participate in professional

development training. Beyond the credentials, ask for a resume, references, and visit with some recent clients. A good forester is vital to guide you through the management of your forest. A bad forester will leave you feeling devastated.

The logger is the person who cuts the trees and transports them from the forest to the mill for processing into boards or pulp. You should expect a high level of professionalism from your logger. Loggers achieve and demonstrate professionalism through personal experience and various training programs offered throughout the state. Loggers have the opportunity to take training classes through NY Logger Training, Inc., a group that strives to help loggers work safely, efficiently, and with sensitivity to ecological aspects of forests. Your forester will know loggers in the area, and should have a long list that can be solicited for services. Forest owners should visit some recent harvest sites and see the types of work that the loggers have done. A good logger can ensure that the forest left behind after the harvest is healthy and with minimal damage to soils and trees. A bad logger can cost you more money that you make.

How are trees sold?

Trees are sold typically as a specific number of stems for a certain sale. Because all trees aren't created equally, a forester will tally the trees to be cut by species and diameter so a buyer will know what they are buying. With diameter and species information, the forester can estimate the number of board feet for each species. A board foot is a volume of wood defined as 1" x 12" x 12", or an equivalent volume in different shape. Different assumptions are used to estimate the actual number of board feet that can be cut from a tree or log. These assumptions result in different measuring

"scales", such as *Doyle* or the *International 1/4*".



The actual value of trees or logs depends on many factors, such as the species, their size, the total volume, difficulty of access, and amount of defect in the wood.

The value of standing timber, or stumpage, is typically reported in MBF or "thousand board feet" (M is from the Latin *milli* or thousand). A tree that is 16 feet long and 16" in diameter has an estimated 75 bd. feet (.075 MBF) by Doyle scale and 106 bd. feet (.106 MBF) by International scale. The difference between scales doesn't matter if you compare sale bids as dollars from one prospective buyer versus dollars from another prospective buyer. The scale used does matter if you pay for services by the board foot or are paid for timber by the board foot. Your forester can help you understand the differences if you use sale methods.

What's in a timber sale contract?

The timber sale contract is a necessity and a good contract will protect both the seller and the buyer. All timber sale contracts have many similar features but no two contracts should be the same. Because most forest owners infrequently sell timber, they should have their attorney review their sale contract. The small investment is worth the cost.

A timber sale contract will have four basic parts:

1. The opening section identifies the buyer (logger or sawmill) and seller (forest owner) by name and address. It should include the name and address of anyone who is acting as an agent of either party, such as a forester who might represent the seller. The opening section should also specify the relationship between buyer and seller, specifically whether the logger is a subcontractor or employee of the forest owner. Check with your attorney for liability and tax implications, but often the contract should specify the logger as a subcontractor who carries their own liability and workers compensation insurance.
2. The section on property description should describe the location of the property and the area of the property that is included within the sale. This section would document how the property boundaries are marked, how the sale boundary is marked, and assure the buyer that the seller has authority to sell the timber. The actual timber being sold is described here in general terms, such as number of trees and total board feet, and reference can be made to an addendum that gives more detailed data of the trees marked for sale. Finally, this section should include the terms of payment, the schedule for payments, and how long the sale is active.
3. The next section defines the constraints or expectations of both parties. From a forest owner's perspective, this section might include details for the number and types of BMPs (water bars for example) to use, any penalty for damage to residual trees, whether marked non-merchantable trees should be cut (they should be!), the amount of

the performance bond, and the transferability of the contract to others.

4. The final section might include maps of the sale area, detailed data on the trees to be cut, a glossary of terms, or other defining information that will make the contract more clearly understood by both parties.

Samples of timber sale contracts are available through the DEC and from the Cornell Forestry Extension web page. Other sale contract language may include the condition of the road and landing following the harvest, the payment style and schedule, penalties for harvesting unmarked trees, the height of trees tops left in the woods, and the amount of the performance bond. Remember also that the stipulations you add to the timber sale will reduce the amount of money you receive. Require the stipulations that are appropriate, but discuss the consequence of each one with your forester. For example, tree tops left in the woods are unsightly to many people, yet lopping tops so they can't be seen is time consuming, dangerous, and costly. By not lopping tops you reduce risk to the loggers, save time and money, provide habitat for some wildlife species, and may protect some tree regeneration from deer browsing.

Knowing What You Have

A current inventory of timber by species, volume, and value is indispensable. Timber harvesting involves making a decision, which trees to cut and which to leave, that will affect the woods for many decades to come. Timber values vary immensely by species, size and location of trees, time of year, and many other factors. A black birch tree may be worth \$5 while the same size black cherry nearby perhaps \$300.



An inventory will tell a landowner what they have and whether their forest can provide the products and amenities they desire.

You will need to have your forester conduct an inventory of your woods to know what you have. The forester will need this information to develop a timber sale contract that protects and advances your interests. Knowing what you have gives you a starting point and your ownership objective or goal is the ending point. Whether or not to cut trees depends on whether cutting will move you towards your goal.

The inventory is important even if you don't plan to sell trees. A maple syrup producer needs to know how many sugar maple trees are present and their diameter. A song bird enthusiast will want to know the variety of tree species and sizes, plus the abundance of cavities and snags. Deer and turkey hunters will be interested in the abundance of mast, seeds such as acorns, beech nuts, and cheery pits. In all case, the rate of growth of the trees will be important to understand the health of the forest. The inventory provides knowledge and this gives the forest owner the power to make informed decisions. Either leave the forest alone because it's doing fine by itself, or cut some trees to provide a combination of

products and improved conditions for the forest.

Types of Timber Sales

The common types of timber sales include the lump sum sale, the scaled sale, and the percentage sale. In a lump sum sale, all trees sold are paid for prior to being harvested. The scaled sale and percentage sale depend upon measuring the logs during harvest or after logs are delivered to the sawmill. The logs are usually 'scaled' or measured on the landing in a scaled sale and at the sawmill for a percentage timber sale where the landowner is paid a percentage of the mill tally.

The lump sum sale, or a variation of it, has distinct advantages for many forest owners. The variant is that the total value is estimated, but the actual value depends on the volume delivered. The owner is paid the estimated value before any cutting occurs, but settles the exact value after the harvest is over based on the scale of the logs. The variant will allow a forest owner who qualifies as being in the trade or business to use the more favorable capital gains treatment for IRS purposes and thus give additional tax advantages over passive owners or investors. Check with a tax consultant on the details of being a "material participant" and the distinctions between 631(a) and 631(b) capital gains treatments.

Having payment before cutting helps the forest owner ensure they will be paid. Advance payment also gives the forest owner the ability to stop the harvest activity during mud season or for other reasons without concerns about cash flow. The good reasons for a landowner to sell on percentage are few and far between. Loggers should be paid fairly for the important, difficult, and often dangerous

job they perform. This doesn't mean though that the forest owner should share the profit of their property. Service providers, whether logger or forester, will offer many reasons why a percentage or commission relationship is good, but the typical basis for their logic is that it gives them more money.

Taking Some Initial Steps

The first step before you consider selling timber is to make sure a timber sale is consistent with your written forest management plan. This is especially true if you are approached by a logger, timber buyer, or procurement foresters to sell your timber. Selling timber too soon may not allow you to achieve your management objectives. Your management plan should describe the timing, location, and intensity for a timber harvest.



Many people are available from various organizations and agencies to help forest owners understand their options for management. An unbiased but professional source should help you decide if a harvest is appropriate.

Once you decide to sell timber, the next step is to locate competent help from the key players. An initial contact might be a Master Forest Owner (MFO) volunteer through your county association of Cornell Cooperative Extension or a Department of

Environmental Conservation professional forester. A MFO volunteer can give you information and help you contact reputable people, while a DEC professional forester can provide the same information and give you technical advice. You will also likely need to make contact with a consulting or industrial professional forester who will help you find a logger. A forester who puts your timber out to bid will make sure you get a fair price for your timber. Find a forester who will represent your ownership interests in addition to making you money. Ask for references, and check them, before you begin working with a forester and a logger. Many forest owners find it to their advantage to have their forester mark their timber and then put it out for bids from several reputable loggers. When you select the logger consider both the value of the bid and the reputation of the logger to do good work. One indicator of a conscientious logger is whether they've participated in the New York State "Trained Logger Certification" program.



Water quality, scenic vistas, and any special place need special attention during a harvest.

A primary issue to discuss with your forester before any trees are marked, is how the timber sale meshes with your management objectives. If you are

interested in wildlife then discuss leaving large mast trees for wild turkey, making small patch cuts and leaving large downed logs for ruffed grouse, or leaving or creating snags for cavity nesting birds. If you are interested in recreation and property access, discuss ways to route the skid and haul roads so you can use them for skiing, hiking, or bird watching. These are a few of the options you can explore to get more than cash from your timber sale.

Additional topics to discuss with your forester and logger are environmental and stewardship concerns. These are important to maintain the health and productivity of your forest and woodlot. If you have "classified wetlands" or streams special precautions must be taken before harvesting trees in and adjacent to these areas. (Note - legal restrictions may apply in some situations, consult your DEC forester) Make certain your forester and logger consider the need to encourage the regeneration of desirable tree species. Too often poorly planned timber sales take only the best trees or biggest trees and leave behind the poor quality trees to provide seed. Discuss the time of year that harvesting will occur and the need to avoid skidding trees during the mud season to minimize damage to soils and to control erosion. Be certain your property boundaries and the harvest area boundaries are marked.

Summary

Having a timber sale on your forested property can be an exciting and profitable event that, if done correctly, can increase your ownership enjoyment without reducing the environmental quality of the land and waters. However, a timber sale is not an activity you should hastily pursue. The actions you take in your forest will be evident for decades and will determine the

future benefits you and others receive from your forest. A timber sale will be your signature on the land. Several good brochures and sample timber sale contracts are available through your local office of the DEC and several good publications through your county association of Cornell Cooperative Extension. For more information on timber sales and forest management, visit www.dnr.cornell.edu/ext/forestrypage

Additional Reading

A guide to logging aesthetics: practical tips for loggers, foresters, and landowners. GT Jones. 1993. Natural Resources Agricultural Engineering Service (NRAES, formerly Northeast Regional Agricultural Engineering Service). www.nraes.org PO Box 4557, Ithaca, New York 14852-4557 Purchase price \$7.00 plus S&H. (607) 255-7645.

Conducting a successful timber sale. MG Richenback. 2003. University of Wisconsin-Madison, UW Extension, Department of Forest Ecology and Management. <http://clean-water.uwex.edu/pubs/timbersale/> available on-line as a 1.6 MB .pdf

Timber management for small woodlands. Goff, G.R., J. P. Lassoie, and K. M. Layer. 1994. IB #180. Cornell Cooperative Extension Information Bulletin. Cornell Cooperative Extension, Distribution Center, Ithaca, NY 14850. (607) 255-2080.