
LANDOWNER GUIDES

to a

**Successful
Timber Harvest**

*Improving the quality of your
harvesting operations to support forest health
and protect your land.*

A yellow logging machine is positioned in a forest, surrounded by large logs. The machine is a skidder or log loader, with a large front-mounted grapple and a rear-mounted skidder. It is surrounded by a large pile of cut logs, which are stacked in neat rows. The forest is dense with tall, thin trees, and the ground is covered in snow. The lighting is bright, suggesting a sunny day.

Cut With Confidence

Your woods are important to you. It's your land. And you want to take care of it the best way possible. As part of a larger plan to protect everything you value about your woods, one option landowners have is a well-planned timber harvest. But it can be a complex process that, if not managed well, can end with less-than-ideal results. Thankfully, there's a lot of information about timber harvests. Unfortunately, it's either spread out across too many resources or, when pulled together, it is filled with information that doesn't pertain to your woods. Until now.

Although nothing replaces working with a licensed forester, this, and subsequent guides on specific topics, will give you tips, information and direction to complete a successful timber harvest and ensure the future of your woods for generations to come.

Taking care of *your woods*

YOUR WOODS ARE ALIVE. That seems obvious, they're filled with living things. But what we're really talking about may not be so obvious.

Woods evolve. They mature and grow over time. This changing landscape defines what grows there and what wildlife calls it home. It's a healthy, natural cycle that we sometimes intentionally manage to meet specific goals.

It's a practice called silviculture, and it's a good way to get what you need from your woods while maintaining and, in some cases, enhancing them from generation to generation.

In Vermont, that starts with a [Forest Management Plan](#) put together by you and a consulting forester.

An experienced forester can determine what kind of trees you have, assess their value, identify current or potential issues and help you define long-term goals to benefit your woods as a whole. As you plan for a harvest, they can also help put the impact of that harvest into perspective. You'll know not only that your harvest is meeting your goals while maintaining and supporting the health of your woods, but why.

For more on working with a forester, read the [Landowner Guides to a Successful Timber Harvest—Working with Professionals](#).

Harvest Goals



SAMPLE TIMBER HARVESTING GOALS

The goals you set for a timber harvest shape your woods, literally, so they should be carefully considered. List what you want from and for your woods. Talk to the people you share them with. Talk to other landowners. This is Vermont—there's a good chance someone at the local country store or coffee shop has been through this already and will be more than willing to share his or her insights.

Do you want recreational trails?

What kind of wildlife are you hoping to attract?

Do you want your woods to be a source of long-term added income?

With clear goals in mind, talk to a forester about the reality of and best path to meeting them. Make a plan. Then stick to it. That's important. Woods don't operate on human time lines, so even though you may not see exactly what you want immediately, if you stay the course, your woods will get there in their own time.

IMPROVE TIMBER quality

Stimulate growth and increase the quality of trees (and in turn their future value) by removing high-risk or less desirable trees that crowd more desirable trees.

IMPROVE WILDLIFE habitat

Although you can't expect to encourage all types of wildlife on a given piece of land, a variety of tree species and maturity levels is vital to supporting wildlife diversity in your woods. For more on wildlife and timber harvests, see the [Vermont Voluntary Harvesting Guidelines \(VHG\)](#) (pp 40-48) or the [Landowner Guides to a Successful Timber Harvest—Wildlife](#).

SUPPORT FOREST health

Retain a diversity of tree species and ages. Removal of some high-risk or diseased trees, regulation of light and moisture to trees that remain or other steps can increase the overall viability of your woods.



The Use Value Appraisal Program (UVA), also known as Current Use, reduces taxes by basing the appraisal on the property's value for production of wood rather than its residential or commercial development value. In other words, you'll pay less in property tax by having, and following, an approved Forest Management Plan on file with your county forester. A consulting forester can help you complete your ten-year long plan for the health of your woods—and your wallet.



Steps of a *successful harvest*

- 1 Planning a harvest
- 2 Understanding appraisals/contracts
- 3 Laying out your harvest
- 4 Monitoring the cut
- 5 Closing out the harvest

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Planning a harvest

PLAN FOR YOUR LAND

Once goals are in place, you, preferably with a licensed consulting forester, can start planning your harvest.

Prepare a map of your woods (your forester can help with this) clearly marking the property and harvest boundaries. Identify existing and plan for any new access routes to the harvest area, taking note of any natural barriers (rock outcroppings, water features, etc.) to avoid. Mark everything on your map, including access roads, skid trails, water crossings, a landing for processing wood and other important resources to avoid or areas to protect.

Meet with a logging contractor and your forester. Supply them with a map and walk the area to be harvested, pointing out boundaries and special features that need protection.

It's good to note what type of equipment the contractor will be using and what type of harvest will work best for your woods (see below). Discuss those decisions with your forester and make sure the contractor you've hired, their equipment ([VHG pp 21](#)) and their harvest plan is what's best for your goals before you sign and execute a contract.

During the planning, it's also good to talk about timing for the harvest. Here, most harvesting takes place in the summer or winter, when the ground is dry or frozen. Avoid wetter months to avoid affecting water quality, rutting and damage to the soil.



TYPES OF HARVESTS

These brief definitions give you a sense of the different types of harvests. Each has its own benefits, and your forester can help determine the best for your goals.

Tree length Trees are delimbed and topped at the stump and delivered to the landing as full-length stems only.

Cut to length Trees are delimbed, topped and cut into final product lengths, then delivered to the landing as pre-processed forest products.

Whole-tree Trees are severed from the stump, and whole tree is transported from the forest to the landing. The tops are then either turned into chips or returned to the harvest area.



Remember, your contractor doesn't know your woods or your goals, so this is a great time to open the lines of communication that will be the basis of a successful harvest.

WHAT'S IN YOUR WOODS?

Knowing your woods and working with foresters, you should have a good idea about both the physical makeup of your land and the community of plants and animals living on it.

Maintaining this biodiversity is important for the health of your woods long-term. It can be challenging during a harvest, but with proper planning, your woods will benefit.

NEXT STEPS

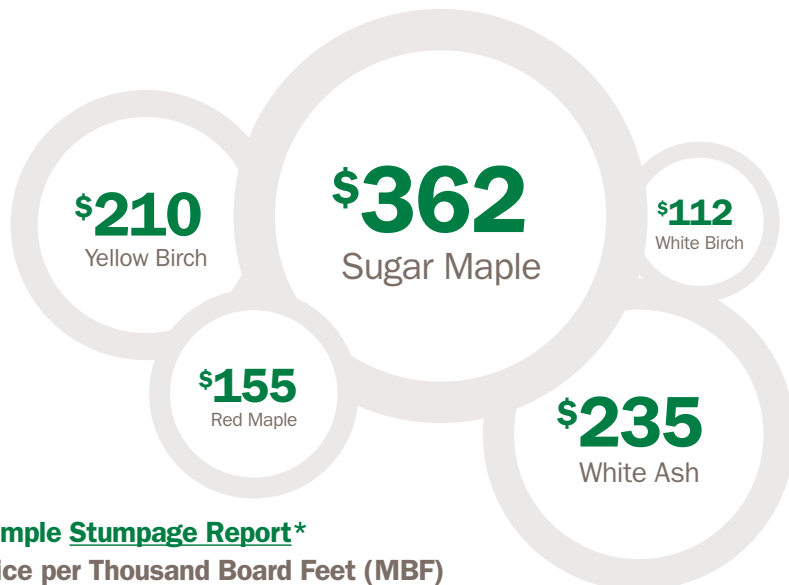
3. Laying out your harvest 4. Monitoring the cut 5. Closing out the harvest

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Understanding appraisals & contracts

THE BUSINESS END OF LOGS

Going into a timber harvest, it's important to understand that your relationship with the logging contractor is not employer to employee—it's seller to buyer. A logging contractor is purchasing an asset – standing trees – from you, then cutting, transporting and selling them. It's a business transaction carried out on your land, so a well-written contract that defines the responsibilities and conditions of the agreement is critically important in protecting you and your contractor and avoiding misunderstandings or surprises for both parties.



Sample Stumpage Report* Price per Thousand Board Feet (MBF)

* Figures above are a statewide average of voluntarily reported sales from Q1 2016 and are intended to be indicators of relative value and not a measure of market price for future sales.



Large trees are not always the most valuable for harvest. See our [Economic Guide](#) for more.



Appraisals Like anything you sell, it's important to know the value of your timber. Many factors, including types of trees, sizes, quality and potential products go into an appraisal of timber value. In addition, the ease or difficulty of accessibility and market conditions weigh into the final valuation. Your consulting forester should have experience in assessing the value of your trees so you have a strong baseline going into discussions with contractors.

Contracts Your contract should include obvious things like names and addresses of buyer and seller (logging contractor and you), harvest timing, liability, responsibilities and payment schedules. It should also include:

- ✓ Mapped location of the harvest area.
- ✓ A breakdown of prices to be paid to you.
- ✓ A requirement for the contractor to provide you a **cash or insurance bond, letter of credit** or other document to protect your interests for the duration of the harvest.
- ✓ **Transfer responsibility for adherence** to state and federal laws related to harvesting to contractors. Examples include: implementation of AMPs and securing necessary permits.
- ✓ **The ability to suspend operations** in the instance of adverse conditions.
- ✓ A requirement for the contractor to carry **insurance to cover liability, workers' compensation and equipment**.
- ✓ **Clearly defined close-out activities**.

For more see the [VHG](#) (pp 14-16), read [Landowner Guides to a Successful Timber Harvest-Economics](#) or visit us online to see a [sample timber harvest contract](#).

NEXT STEPS

4. Monitoring the cut 5. Closing out the harvest

3

Laying out your harvest

BEFORE THE FIRST CUT

In the planning stage, you and your forester identified where and what will be cut. You should have a map with boundaries, access routes and features to avoid. Now, it's time to make your harvest area match your map.

- ✓ Be sure property boundaries are clearly marked on the ground.
- ✓ Create harvest boundaries by marking the area with flags or paint.
- ✓ Flag access roads and trails.
- ✓ Highlight features to be protected.
- ✓ And finally, mark the trees to be cut with suitable tree-marking paint.

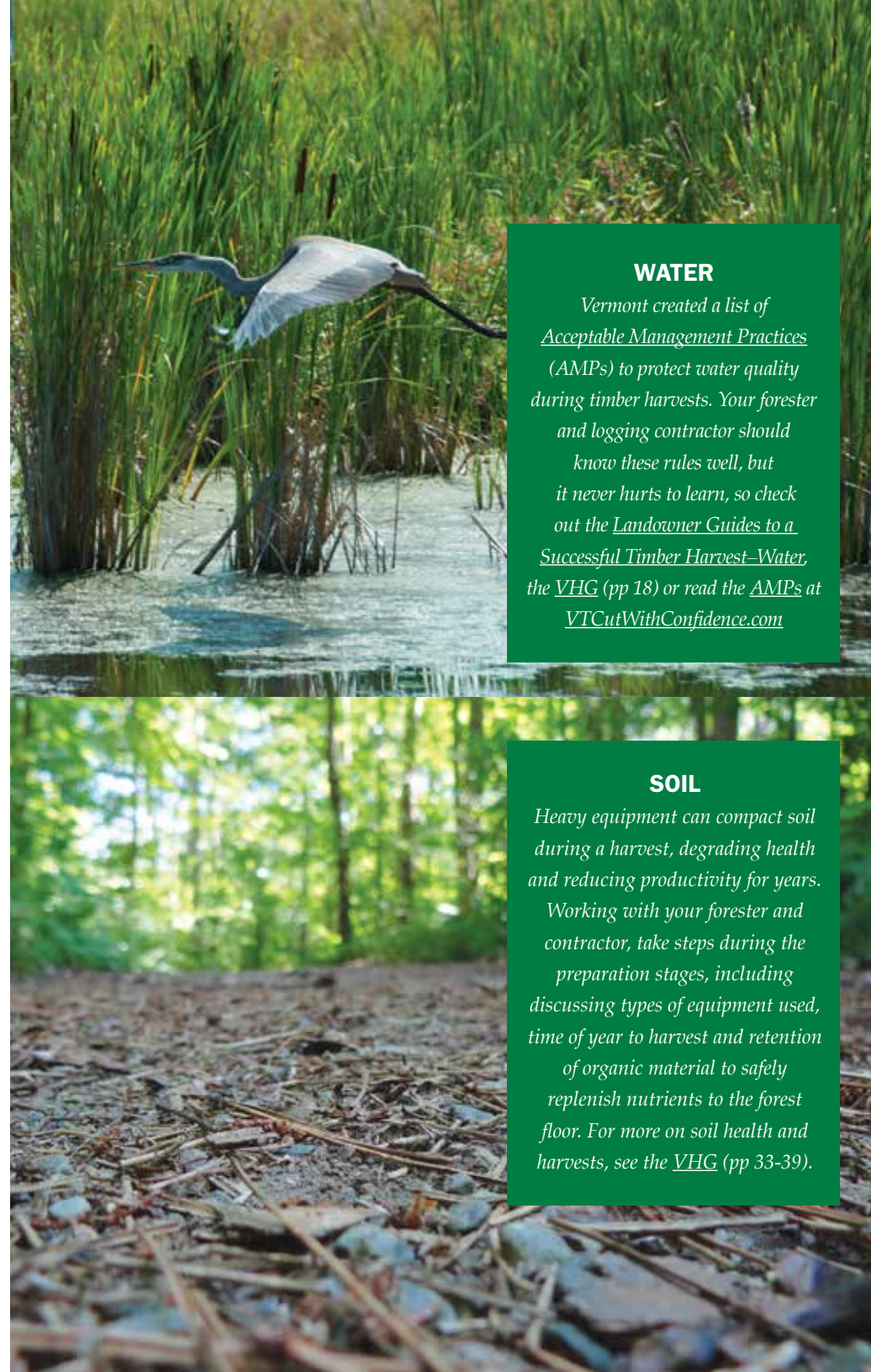
Obviously, access infrastructure (skid trails, landings and truck roads) will need to be in place before harvesting begins. Skid trails are used to bring harvested materials from the site to a landing. At the landing—a cleared, open, dry area—raw materials can be processed, sorted and loaded onto trucks for delivery to mills and other markets. And truck roads, constructed to a higher standard to bear the weight, give logging trucks access to landings from public roads or highways.



Make sure you and your logger know which roads, trails and water crossings will be temporary versus permanent and plan on their construction and placement accordingly.

Permanent changes could include the construction of truck roads used for future harvesting operations, trails used for recreational activities or structures built to cross streams. Keep in mind that permanent stream crossings may need special permitting—your forester or logger should understand when and where these additional permits are necessary.

With goals defined, your harvest clearly marked on a map and in the woods, and access infrastructure in place, you're set to begin a harvest and a healthy, more productive future for your woods.



WATER

Vermont created a list of *Acceptable Management Practices* (AMPs) to protect water quality during timber harvests. Your forester and logging contractor should know these rules well, but it never hurts to learn, so check out the *Landowner Guides to a Successful Timber Harvest—Water*, the *VHG* (pp 18) or read the AMPs at VTCutWithConfidence.com

SOIL

Heavy equipment can compact soil during a harvest, degrading health and reducing productivity for years. Working with your forester and contractor, take steps during the preparation stages, including discussing types of equipment used, time of year to harvest and retention of organic material to safely replenish nutrients to the forest floor. For more on soil health and harvests, see the *VHG* (pp 33-39).

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Monitoring *the cut*

WATCH YOUR WOODS

Even with careful planning, preparation and contracts, it's a good idea to keep an eye on your harvest with regular visits by you and your forester. Not to say that your logging contractor is up to no good, but a work site is a work site—there are a lot of moving pieces and a lot of people involved. Periodic check-ins to be sure of compliance with your contract can help avoid problems before they arise. Visiting the site is also an opportunity to keep the lines of communication open and address any questions or suggestions your contractor may have along the way. Your visits—which should always be made with safety precautions—begin the day the contractor's equipment is moved onto the site and end the day the equipment leaves after close-out activities are complete.

Some loggers may not love your visits, but keep in mind, you're going to be in the woods much longer than they are, so it's good for all involved to be sure things are going smoothly.

For more, see the [VHG](#) (pp. 34).



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Closing out *the harvest*

FINISHING UP

Well-defined close-out activities determine the final condition of your harvest site, so be sure these contract requirements have been met before equipment is removed and you release the performance bond. These activities include:

- ✓ Smoothing out ruts and shaping skid trails (as soon as the ground is dry enough).
- ✓ Preparation of predetermined recreation trails for future activity.
- ✓ Lopping slash (residual tree tops and branches from harvested trees) to an agreed-upon height, where appropriate.
- ✓ Moving slash (at least 50 ft from public roads or property lines and 100 ft from buildings).
- ✓ Removal of temporary water crossings and ensuring AMPs are in place.
- ✓ Smoothing, seeding and mulching landings and other areas where necessary.

Following this guide and the VHG, you'll know you've gotten the most from your woods while leaving them better for the next generation because you learned, planned and Cut with Confidence.



WHAT WILL IT LOOK LIKE?

To be completely frank—it's not gonna be pretty. But, with a well-managed harvest, this visual impact is only going to be short-lived.

Slash, stumps and dying trees don't look nice, but they provide habitat for wildlife and help restore the soil. Bare soil can be mulched or seeded.

Remember, it's part of the process. Your woods are still healthy and will come back in their own good time.

Pitfalls *to avoid*

- ✓ Not knowing your land and what's on it
 - ✓ Going into a harvest without clear goals and a plan
 - ✓ Not sticking to your plan
 - ✓ Leaving references unchecked
 - ✓ Unmarked boundaries, protected resources or trees to be cut
 - ✓ Not having a contract
 - ✓ Unmonitored harvests
 - ✓ Highgrading (a.k.a. Take the best, leave the rest.)
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