Quick Tips for Harvesting

This guide presents a wealth of information on sustainable harvesting and maintaining healthy forests. We realize that not all landowners want this level of detail. For those of you who want a quick guide, here is a checklist of steps to take and actions to avoid during your harvesting operation. These are the major points and not a comprehensive list. They will keep you on track for a successful and sustainable harvest. Use this as a handy checklist before, during, and after harvesting operations.

Preparing for Your Harvest

Steps to take

- Consult a forester from the Department of Forests, Parks and Recreation or a biologist from the Vermont Fish & Wildlife Department.
- Develop a forest management plan by working with a consulting forester.
- Conduct a pre-operation survey to determine the presence of invasive plant species.
- Clearly communicate your harvesting objectives to your logging contractor.

Make sure you avoid

- Harvesting without a written contract.
- Harvesting without understanding the laws and regulations that may apply to your harvest area.
- Harvesting without accounting for existing regeneration or taking steps to stimulate new regeneration.

Conducting a Harvest

Steps to take

- Have an on-site meeting with your logger and forester prior to the harvest.
- Follow your forest management plan. A plan is only good if you implement it.
- Ensure property boundaries and the harvest area are clearly marked on the ground.
- Mark with paint the trees that will be removed.
- Select the harvest system that best meets your management objectives and is suited to your site conditions.

Make sure you avoid

- Cutting the best trees and leaving only defective, deformed trees and undesirable species. The trees you leave behind will make up the next forest.
- Leaving safety hazards near recreational-use areas (snags, large dead limbs, etc.).
- Skidding on public roads and under utility lines.
- Compacting a large percentage of your forest's soil. Soil compaction can reduce site productivity for many years after logging, particularly on clay or silt soils. Moist soils are more prone to compaction than dry soils.

- Harvesting during excessively wet conditions.
- Harvesting on steep areas such as gullies, ravines, outcroppings, and cliffs; and in wet areas, springs, wetlands (including vernal pools), and streams when possible.

Protecting Water Resources

Steps to take

- Familiarize yourself with and follow the regulations entitled *Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont*. Ensure that acceptable management practices (AMPs) are implemented both during and immediately after harvests to protect water quality.
- Make sure your written contract includes measures to protect forest buffers along streams and other bodies of water.
- Follow the Vermont Wetland Rules as they pertain to logging in and adjacent to wetlands.
- At the close of the job, remove all temporary stream crossing structures as soon as possible.
- Construct stream crossings during periods of no or low flow and perpendicular to the stream's direction.
- Remove any tree tops cut in the harvest from streams or other water bodies.
- Place your log landing away from streams and other bodies of water and on a site that will drain well and stay dry.
- Locate and design skid trails and truck roads so they do not drain into the landing site.
- Stabilize exposed soil adjacent to streams by seeding and mulching.

Make sure you avoid

- Making bridges and culverts too small for high water. Avoid the temptation to undersize to save money. High water is a common event in Vermont.
- Causing ruts on roads and skid trails. Ruts disrupt the natural flow of water through the soil and cause soil erosion.
- Crossing streams more than necessary to bring forest products to the landing.
- Draining water carrying sediment and pollutants directly into streams or intermittent drainages. A discharge of sediment to waters of the state is a violation of state statute and regulations. Instead, divert it off into the surrounding vegetation to filter out sediment and allow it to soak into the soil.
- Driving a skidder into or through a wetland without implementing AMPs.
- Dredging, filling, or altering the natural hydrology of wetlands.
- Allowing oil, hydraulic fluid, gas, diesel fuel, or other chemicals to soak into soil or enter water bodies. Maintaining equipment will prevent leaks and save money. Using soil for fill, either alone or in combination with slash, for stream crossings.
- Using forest roads when they are wet, soft, and easily damaged.

Protecting Soil Health and Productivity

Steps to take

- Minimize exposure of mineral soil and maintain organic material during harvesting operations.
- Make a plan to retain some dead trees, fallen logs, and tree tops and branches for nutrient replacement.
- Minimize or avoid locating truck roads and skid trails on steep slopes when possible.

Make sure you avoid

- Skidding on shallow soils, unless under frozen ground conditions, and on steep slopes that are greater than 20% or when soils are wet.
- Removing tops or branches with leaves on them if the harvest is taking place on soils with low-fertility sensitive sites or have recently been harvested, or if utilizing shorter harvest intervals in your management plan.
- Harvesting on steep slopes.
- Safety issues. According the Natural Resources Conservation Service (NRCS), operators may begin to experience equipment limitations on slopes between 25% and 35% grade. They may be unable to operate equipment safely on slopes greater than 35%.

Biodiversity and Wildlife Habitats

Steps to take

- Become familiar with the natural communities on your land and the wildlife habitat your land provides.
- Contact the Vermont Fish & Wildlife Department if you have rare, threatened, or endangered species present on your property.
- When seeding and mulching exposed soil, be sure you are not spreading invasive plants.
- Tell your logger about special places where he/she should avoid harvesting or skidding. These include vernal pools and other unusual habitats.
- Plan your harvest to maintain or expand diversity in the trees that you leave including different sizes, ages, and species.
- Retain and create future snags, cavity trees, and legacy trees for their wildlife values.

Make sure you avoid

- Harvesting areas above 2,500 feet. You need a permit from your Act 250 District Environmental Commission to do so. We recommend reducing harvest intensity at higher elevations and on steep slopes.
  Compromising unique wildlife habitats including deer wintering areas, nesting sites, or areas with mast trees.
- Harvesting in or within 100 feet of vernal pools. Maintain a closed canopy when harvesting adjacent to this zone.

Planning for Change

Steps to take

- Plan to respond to invasive plants on your land that could spread following the harvest.
- Be aware of invasive insects and be ready to respond if you find any during the harvest.
- Improve forest resiliency by maintaining or increasing tree species diversity and forest structure elements.
- Cease operations in extreme weather events.
- Consider the future forest. Regeneration, whether already present or stimulated by the harvesting operation, should be your number-one priority. Protect what you have and harvest in a manner to encourage more of it.

Make sure you avoid

- Harvesting during or immediately following an insect or other pest outbreak. Wait to harvest a stand until at least 3 years after the last major year of defoliation.
- Responding prematurely to a forest disturbance like an ice storm or windthrow. Sometimes the best thing is to leave things alone as part of the natural process.
- Pre-emptively eliminating ash or hemlock from your forest mix if the emerald ash borer or hemlock wooly adelgid is not yet present in your area.