



News from the Forest

Autumn 2004

VFF *LUMP SUM PLUS SYSTEM WORKS* FOR FOREST AND STEWARDS IN STARKSBORO

By David Brynn

The 288-acre Starksboro Town Forest is located south and east of the village of Starksboro, sandwiched between 1,515-foot East Mountain to the north and Lewis Creek to the south. A timber harvest employing the Vermont Family Forests *Lump Sum Plus System* has recently been successfully completed there. Both forest and forest stewards benefited from this and all of the other important preparations that the community has made.

I visited the site in mid-October, as the commercial timber sale neared completion. The leaves were at peak color and only a few had started to fall. A pair of red-tail hawks swooped through the red oak and northern hardwood forest to check out the activity. On the area's east side sat a large quartz rock, a glacial erratic deposited by a retreating glacier more than 12,000 years ago. Behind the rock a flock of 20 turkeys clawed through the leaves looking for beechnuts, red oak acorns, and hophornbeam nuts. They didn't find many. Maidenhair fern and blue cohosh blanketed the ground in some places, suggesting that there was limestone close by.

The site is quite exposed and the forest floor has many "hummocks and hollows," remnants of the trees blown over by strong winds and hurricanes. It appears this area was never stumped or

otherwise improved for agriculture, though it was undoubtedly cleared and heavily grazed.

Scattered around the woods are rotten old metal sugaring buckets. Further south and west—down in a hollow just east of Janet and David Russell's line—one can make out foundation stones, pieces of sugaring pans, arches, and roofing. There is a point when *junk* from past land uses becomes an *artifact*. The Starksboro Town Forest has reached that point.

The commercial forest management operation had been going for about a month and it was just coming to a close. One could smell the sweet, rich soil of the access trails. There were a few small patches where several trees had been removed to open a hole in the canopy so that seedlings could get established and grow. Tops were scattered here and there to help

protect the seedlings from browsing deer. Many large legacy trees – including perfectly straight red oaks and gnarly old beech trees – had been left to provide seed, shade, and continuity. Several snag and den trees on each acre provided habitat for countless species of birds, amphibians, insects, and mammals. And there were large down logs too. Perhaps one day a ruffed grouse will drum there. Few if any of the residual trees had been damaged by the logging.

This type of forestry—where water quality, site productivity, and native biological diversity are conserved and protected—doesn't just happen. It is the result of careful and thoughtful planning and design. Many people contributed to that design in the Starksboro Town Forest.

Several years back, the Starksboro Town Forest Board and Starksboro Conservation Commission—under the leadership of involved residents such as Alan Noble, Robert Turner, Len Schmidt, Mike Moriarty, Vicky Backus, and many others, and with the support of the Board of Selectmen—began planning for the future of the town's forest.

They conducted hikes and involved school groups. They funded a detailed inventory conducted by Upland Forestry of Bristol. And they developed a comprehensive plan and map of the property to

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David Brynn and Robinson Elementary students explore Starksboro's Town Forest.

Vermont Family Forests

Vermont Family Forests is a non-profit education organization whose mission is to conserve the health of the forest community and, when appropriate, to promote the careful cultivation of local family forests for community benefit. We accomplish this mission through public education, forest certification, and research and demonstration projects.

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guide future management. They set aside some fragile and unique areas and identified other areas for timber management. Aesthetics, recreation, and scenic beauty drove many of the decisions.

The timber harvesting operation was prescribed for the area in the northwest corner. The idea was to improve the timber quality of the residual stand, to mimic natural processes to the maximum practical extent, to stabilize the access network, and to generate some revenue for the Town.

Trees were marked and access routes carefully flagged. Lists of activities to be completed before, during, and after the operation were created. This step of identifying very specific activities and standards and then incorporating them into a harvesting contract is a critical step that benefits the forest, the landowner, and the logger.

In a typical timber harvesting operation, timber is sold either "mill scale" or "lump sum." In a mill scale sale, timber is harvested, trucked to the mill, and scaled and graded by the mill. The check is typically split in some fashion between the landowner and the logger depending upon the quality of the timber and the difficulty of the logging.

In a lump sum sale, several buyers bid on the marked standing trees so the landowner knows how much he or she will receive before any trees are cut. The downside of this arrangement is that the logger commonly ends up working for the purchaser rather than the landowner. The entity "buttering the bread" can have a pretty significant impact on the quality of the logging and the health of the forest.

In the VFF *Lump Sum Plus System* the logger—actually more correctly described as a *forest management contractor*—is shown the marked trees and all of the associated specifications for operating the sale. The logger agrees to some type of a payment system. In the case of the Starksboro timber sale,

the logger was paid an hourly rate to accomplish some pre- and post-sale road and non-commercial forestry work. He was also paid an hourly rate not to exceed a limit per thousand board feet to fell, limb, buck, sort, and otherwise prepare the logs for shipping. The buyers were responsible for trucking costs. This method completely changes the dynamics among the forest, the owner, and the logger. All are working together, for, and with each other.

In the case of the recent harvest at Starksboro Town Forest, the logging work was completed by John Anderson of Canopy Logging in East Middlebury. John is a horse logger at heart who is now becoming more mechanized. Horse logging is much harder on the logger. There are also many times when a small machine can do less damage and more good than a horse. John operates a small bulldozer that is perfect for fixing up access roads. When skidding logs, he attaches an arch to the back of the dozer in order to get the butts of the logs well off the ground to minimize ground disturbance. He uses a Bobcat for managing the landing.

The care that John takes in all of this is exceptional, to say the least. But every timber harvest involves some bare mineral soil, freshly cut stumps, and some tops. These unsightly elements are unavoidable but their impacts can be minimized in space and time. It is also important to recognize that what strikes humans as a bit unsightly actually helps conserve the ecological health of the forest. Leaving tops in place and installing deep waterbars are prime examples of this important point.

VFF will hold a workshop on the *Lump Sum Plus System* for timber sales in the near future. Watch for it and plan to attend. In the mean time take a hike in the Starksboro Town Forest to check out the recent forestry operation for yourself. May the Forest Be With You! ♦

David Brynn is VFF's founder and advisor and the Addison County Forester.

CERTIFICATION NEWS



Vermont Family Forests welcomes Chris Johnson's 448-acre Bristol/Lincoln forest into the certified forest pool. Though only recently certified, Chris has long been actively involved with VFF. He has hosted several Game of Logging workshops at his forest and has attended many VFF workshops, including Natural Community Mapping, The Art of Maple Sugaring, and Game of Logging. He has attended meetings to explore value-adding and licensing of the Family Forest brand and is currently taking part in the Artisan Flooring Project (described below).

Explaining his desire to certify his forest, Chris says, "The opportunities for learning and the synergy that comes from working with individuals committed to sustainable community-based forestry are boundless. I'm particularly excited about developing local markets for lower quality logs that heretofore ended up in the firewood pile... Certification will help me attain my goals of restoring and leaving our family forest in better shape than we found it." ♦

VFF certified landowner Chris Johnson (right) gets sugaring tips from Ben Shepard during VFF's sugaring workshop last winter.

VFF Landowners Initiate Artisan Flooring Project

In late May, 2004, Middlebury College economist Michael Claudon contacted Vermont Family Forests. He'd been hired by the state of Vermont to explore why so much of Vermont's hardwood harvest leaves the state as raw, unprocessed logs and to suggest ways to stem this outflow of manufacturing potential by encouraging more value-adding within the state.

In subsequent conversations with Michael, questions emerged: Is it possible to produce hardwood flooring that is Vermont-grown and processed, FSC certified, VFF-checklist-compliant? What would the marketing look like? How large a landbase would be needed to support production? Who might be interested in taking part?

Thus began the Artisan Flooring Project, initiated by a group of VFF landowners interested in exploring the possibilities for producing beautifully crafted flooring from ecologically managed forests. Looking to expand the certified landbase that could contribute trees to the project, these landowners met with stewards of large FSC-certified forest parcels around the state to see if they'd be interested in joining the project.

It seems clear to the involved landowners at this point that the project will be small in scale, motivated by the desire to build community, collaborate, and have fun while exploring the value-adding process. We'll keep you posted as their project unfolds. ♦

Chain of Custody and Licensing Update

During the past year, a small group of landowners participated in conversations regarding licensing of the Family Forest® brand, and those conversations have helped inform VFF's licensing process. VFF currently has a system in place for tracking certified logs from the forest, through milling and kiln drying. This paper trail is known as chain of custody (COC), or what VFF refers to as Proven Provenance, and it's an essential part of verifying that products sold as green-certified are indeed from green-certified forests.

Several VFF landowners and area woodworkers also produce finished products—from firewood to musical instruments and gazebos—with wood that originated on VFF lands. They want to be able to sell the wood as FSC-certified and to additionally market the wood under VFF's Family Forest® brand.

Because accessing COC certification individually is prohibitively expensive, several of you have asked VFF to provide COC services in-house. We have initiated the process to make this happen, and hope to be approved to oversee COC certification at our next FSC audit in the spring.

Once this is accomplished, we will then formulate ecological, financial, and other guidelines reflecting both our previous licensing conversations and the audit feedback from FSC. At that point, it will be possible for landowners and woodworkers to apply to a VFF committee for licensure for specific products. FSC certification and Family Forest® branding are complex and involved. VFF appreciates your continued input and patience as we weave our way through the questions and challenges. ♦

A Look at Local Value-Adding

JIM CUNNINGHAM, WOODWORKER

Though Jim Cunningham’s woodworking portfolio showcases the breadth and variety of his work—from chairs, stools, benches, and tables to mirrors, decorative shelves, and clocks—he is, for the time being, a one-product man. “Pens,” he says. “I make what sells, and that’s what’s selling.” Hardwood pens, that is. Jim has made thousands of them in the past few years, selling them at craft sales, through stores, and to customers, like Vermont Family Forests.

Figured wood makes the most beautiful pens, Jim says, so he’s always on the lookout for burlled wood. A burl is a wartlike growth on a tree often caused by infection or injury, causing tree cells to divide and grow excessively and unevenly. This chaotic growth produces spectacularly varied wood, which Jim highlights in his pens. Much of his burlled wood has come to him from via firewood piles. “I’ve had people bring me a burl with a wedge stuck in it, and I’ve had to use a sledgehammer to knock the wedge out before I can use it,” he says. Because pens are so small, Jim can utilize wood pieces that most other woodworkers would put in the scrap pile. Finding beautifully figured wood scraps isn’t easy though, and Jim’s always on the lookout for burlled wood, particularly FSC-certified burls.

Jim’s made plenty of pens from FSC-certified wood. When Middlebury College completed LaForce Hall, in



which they used a variety of hardwoods from Vermont Family Forests certified forests, VFF gave Jim beech, maple, and birch remnants from the project’s paneling and flooring, which Jim crafted into pens for the College. With each pen was a tag that told the wood’s story—how it came from a local forest where management practices protected water quality, site productivity, and native biological diversity. “I’d love to sell only FSC-certified wood pens,” says Jim, “but it’s hard to find certified burls.” So VFF certified landowners take note—Jim will gladly take those hard-to-chop burls off your hands. You can visit Jim’s website at www.moosemaple.com. ♦

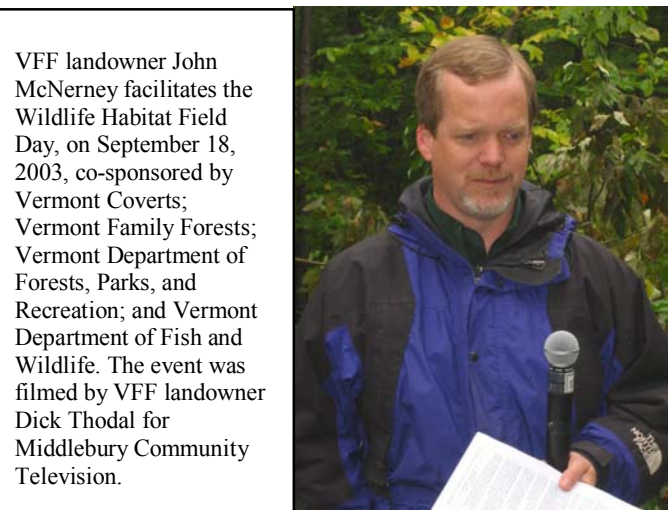
Meet a VFF Landowner

John McNerney, New Haven

When John and Kim McNerney purchased their 82-acre Monkton forest in early 2001, it was, in John’s words, partly an act of faith. That winter brought the deepest snow in years, and when John and Kim first discovered the property, a good three feet of it covered the ground. They snowshoed the property, liked what they saw—a mixture of open and forested area, wetlands, and rolling hills—and closed on the land without ever actually laying eyes on the forest floor. “When the snow melted off and we walked around,” John recalls with a grin, “the trees seemed a lot taller than before!”

John’s core forest management objective is to maintain the long-term health of the forest’s natural communities. In 2002, John participated in Vermont Covert’s three-day cooperators training course, acting on his interest in maintaining wildlife habitat and in working with neighbors to coordinate management to benefit wildlife.

Around that time, John learned about Vermont Family Forests and attended several VFF workshops. VFF’s



VFF landowner John McNerney facilitates the Wildlife Habitat Field Day, on September 18, 2003, co-sponsored by Vermont Coverts; Vermont Family Forests; Vermont Department of Forests, Parks, and Recreation; and Vermont Department of Fish and Wildlife. The event was filmed by VFF landowner Dick Thodal for Middlebury Community Television.

mission—to conserve forest health and, when appropriate, to promote the careful cultivation of family forests—appealed to John. “I’m interested,” he says, “in balancing human use with wildlife use, in trying to find a win/win solution to managing land.”

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When John walked through the forest with consulting forester Randy Wilcox, it became apparent that the forest was at least ten years away from commercial activity. So, in September, 2003, John enrolled his forest in Vermont Family Forests' newly created non-certified forest pool (see sidebar, right, for an explanation of this program). "It's a nice first step to take, allowing me to stay involved with the organization."

John laughs as he describes his current forest management. "Right now, my biggest pastime is managing my buckthorn plantation." He's also been releasing apple trees and has begun to educate himself on crop tree management. He imagines certifying his forest when the trees are more mature. "At some point we'll do a timber harvest, and I want to make sure we do it right." ♦

VFF's Non-Certified Forest Pool

Many landowners certify their forests with Vermont Family Forests because they wish to market their forest products—from maple syrup to timber—as green-certified. But some landowners simply want to manage their land in an ecologically sustainable manner and to be part of the VFF network of private landowners similarly managing their forestlands.

These landowners can enroll their forests in **VFF's non-certified forest pool**. In doing so, they agree to manage their lands in accordance with VFF's forest management checklist to the maximum practical extent. They receive VFF's newsletters and reports and have access to VFF's lending library, workshops, landowner gatherings, ecological forestry products, and one-on-one guidance in achieving their forest management objectives.

SPOTLIGHT ON VFF'S FOREST MANAGEMENT CHECKLIST

At the heart of VFF's vision of ecological forest management is its Forest Management Checklist. If landowners adhere to these 36 management practices, they will protect water quality, conserve or enhance site productivity, and maintain or improve native biological diversity on their forest lands. Below, we highlight one of the 36 practices, explaining what it's about and how you can achieve it. For a complete listing of the 36 practices, visit our website, www.familyforests.org, under "Public Education/Publications," or give us a call (453-7728) and we'll mail you a copy.

VFF Forest Management Practice:

Streams should be crossed with bridges or culverts which are properly sized according to Table 2 in the Vermont AMPs and installed at right angles.

Damage from recent floods in central Vermont has made us very aware of the need to properly size and install culverts. Little intermittent streams can become raging torrents during storm events and culverts must be able to handle them.

Ideally culverts are placed parallel to the stream and at right angles to the road.

Culverts are sized based upon the acreage of the watershed being drained. Also, the types of soils are very important. Culverts can be much smaller in watersheds with well drained soils. Vermont's "Acceptable Management Practices for Maintaining Water Quality on Logging Jobs" gives excellent advice in sizing and placement of culverts.

The roadwork pictured here was completed recently at the VFF certified Waterworks Property in Bristol. An old culvert had rotted, collapsed, and was in need of

replacement. The AMPs suggested installing a 24-inch culvert in a stream that literally had no water in it at the time of construction. Land managers followed the AMPs, and the shiny new culvert easily handled the gully-washing downpour that hit the area just a few weeks later! ♦



WORKSHOPS

Natural Community Mapping



Eric Sorenson, ecologist for the Vermont Non-game and Natural Heritage Program and co-author of *Wetland, Woodland, Wildland*, and **David Brynn**, VFF founder and Addison County Forester, led VFF's latest natural community mapping workshop.

Twelve eager participants gathered on the first day of autumn, September 22, 2004, to learn how to create a draft natural community map and verify it in the field through soil analysis and flora identification.

VFF is compiling a step-by-step guide to the mapping process for workshop participants.



Game of Logging

Because of our strong belief that anyone working in the woods should be well trained in safe and efficient chainsaw handling, we offer Game of Logging workshops twice a year. The Game of Logging training program combines Scandinavian logging techniques with the latest systems for working safely around trees. The Game of Logging program is broken into four levels, the first two of which VFF regularly offers.

In GOL Level I, participants learn the fundamentals of saw handling and control and how to maximize equipment performance. They cover more advanced areas such as site evaluation and new techniques for precise felling, limbing and bucking. Regardless of prior chainsaw experience, all participants take home valuable new skills from this workshop. *You do not need any experience with chainsaws to take this course.*

In GOL Level II, participants learn basic saw maintenance and chain sharpening techniques and build upon their knowledge gained in GOL I, practicing more advanced techniques for precise tree felling.

We can't overstate the value of these training courses. We've had participants who have used chainsaws for 30 years prior to taking GOL Level I say that the course changed the way they work in the woods. Since VFF first offered the course four years ago, more than 70 participants have completed Level I, and 30 have completed Level II. The course grows increasingly popular—this fall, we added a second Level I course to accommodate the many applicants, and still have a long waiting list.



Instructor John Adler demonstrates felling techniques to Level I participants at a VFF-hosted Game of Logging workshop.

We will offer Game of Logging Level I again on May 14, 2005, and Level II on June 4, 2005. We encourage you to inquire and register early to secure a spot in this excellent course. Check our website for up-to-date course listings. ♦

COLBY HILL ECOLOGICAL PROJECT

In the Colby Hill Ecological Project (CHEP), a team of scientists that annually inventories and monitors the biological diversity—plants, amphibians, reptiles, birds, mammals, invertebrates, lepidoptera (butterflies) and odonates (dragonflies)—of 680 acres of private land in Lincoln and Bristol. CHEP also works to educate area landowners about the importance of ecosystem management across property boundaries through our Neighborhood Biodiversity Project.



Left: A bull moose triggers CHEP's remote camera during its nighttime foraging rounds on July 21, 2004.

Right: UVM professor Bill Kilpatrick holds a *Myotis lucifugus* or little brown bat caught during mist netting on CHEP lands. Weighing just ¼ - ½ ounce, the little brown bat is the most common bat in North America.



Photo credits: ©Jan Decher/CHEP 2004

To see other remote camera photos, visit VFF's website, CHEP Reports page.

Marc Lapin, CHEP Research Team Leader

When ecologist Marc Lapin attended Middlebury College, he took Professor Steve Young's course in Introduction to Polar Environments. The course inspired him to visit Alaska, and like any good pilgrimage, that journey offered far-reaching revelations. "While backpacking in Denali National Park," Marc says, "I realized that my life's work would be in nature conservation. Ever since, I've devoted myself to that."

That devotion led him to masters studies at the University of Michigan and doctoral studies at Cornell University. Since moving to Vermont in 1991, he's worked closely with the Vermont Natural Heritage Program and The Nature Conservancy, and coordinates the Champlain Valley Clayplain Project (www.clayplain.org).

Marc has brought his passion for ecological mapping to his work as team leader for the Colby Hill Ecological Project. The opportunity to document long-term change in a typical Green Mountain landscape intrigued him. "The forest [monitored by CHEP] has been worked hard—plenty of it was cleared for pasture—but as it has returned and recovered, it shows the plant composition differences one would expect based on soils." The data of six years of field research reveal distinct

assemblages of plants, insects, spiders, small mammals, and more within the 680-acre study area—differences caused by small changes in moisture, nutrients, and temperature. "That's why I love ecological mapping," he says. "Because I get to see and think about those differences and document them, even before I may know what their significance is."



Ecologist Marc Lapin describes ecological mapping processes to participants in CHEP's first workshop, *Conducting a Biological Inventory in Your Family Forest*.

Marc's intrigued by CHEP's new work of reaching out to neighboring landowners in the Colby Hill area. "It will be incredibly interesting to see how this community of landowners, who know that they live in an amazing place, will respond to the idea of biodiversity conservation across ownership parcels."

Pondering the legacy of CHEP's work, Marc says, "I hope that the legacy is a long, long period of learning about the land and its family of organisms. It will reveal many mysteries to us over the decades. Ecologists of the future will be thankful for the data we are collecting and the permanent sampling

plots that will show how the forest is changing." He also notes, "If we can get the neighborhood to work together, even though landowners have different goals and objectives, to try to support conservation of all biodiversity, that will be a real achievement." ♦

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New Haven River, Lincoln. Conserving water quality, site productivity, and native biological diversity are what VFF's forest management practices are all about.