



2009 Annual Report

Note from the Founder

In his book *A Forest Journey: The role of wood in the development of civilization*, John Perlin wrote that “[F]orests always recede as civilizations develop and grow. Conversely, when a society declines, forests tend to regenerate.” This pattern certainly happened in Vermont. Forests were stripped from 80% of our hillsides when our society was developing in the mid 1800s. Our forests returned when better timber was found in the west and better fuels were found in the ground.

The race to convert forest biomass into heat and electricity is heating up. More and more institutions are getting on the biomass bandwagon in an effort to reduce costs, to find a secure local forest fuel as an alternative to fossil fuels, and to be “carbon neutral.” Some suggest that cutting at a rate that is slightly less than growth will do this. This “sustained yield” philosophy has actually been the foundation of American forestry since at least 1905. But is it really “carbon neutral?”

Aldo Leopold recognized 70 years ago that the sustained yield approach is not enough to assure that the forest is adequately protected. “Overdrawing the interest from the woodlot bank is perhaps serious, but it is a bagatelle compared with destroying the capacity of the forest to yield interest.” In short, we have to put sustaining forest health first and sustained yields of forest products second.

Healthy forests in our neck of the woods produce clean, clear, highly-oxygenated water supplies that support a diversity of macro-invertebrates. The soils of healthy forests have high infiltration capacities and they are rich in humus.

These forests are biologically diverse and they resist invasion by invasive exotics. They also store a lot of carbon.

Can we find a way for our forests to continue to regenerate and to be healthy while also using them for energy? Some suggest that certification is the answer. Others are promoting procurement standards. Others suggest logger training and forester licensing. I think we need three things:

First, we need a very simple list of practices that have been shown to be effective in maintaining or enhancing water quality, soil productivity, native biological diversity, and carbon storage. These proven practices exist. We could call them Vermont’s Best Conservation Practices for Maintaining the Health of Working Forests (BCPs).

Second, we need to identify credible methods for evaluating compliance with those Best Conservation Practices.

Third, we need to systematically assess how well we are currently doing in meeting those best conservation practices. It has been 20 years since we conducted a timber harvesting impact assessment in Vermont. A new on-the-ground assessment is essential to knowing how well we are doing. We might be pleasantly surprised at the results. It is likely that we will never fully achieve all of these BCPs. But they will give us a measurable goal for which we can strive. Institutions can use them as procurement standards by setting a compliance target % and then ratcheting that up over time and rewarding suppliers who exceed it.

VFF has been working on this and more this past year. We hope you enjoy reading this annual report.
May the forest be with you!



David Bryner

RESEARCH

*“Health is the capacity of the land for self renewal.
Conservation is our effort to understand and preserve
that capacity.”*

—Aldo Leopold

Community Biomass Project

Marc Lapin was the principal investigator on a VFF study entitled “Assessment of the Land base Suitable for Sustainable Forest Biomass Harvest and the Wood Biomass Resource Supply Addison County Five Towns and Mad River Valley Towns.” (Visit our website for more details.) The Five-Town Forest includes Bristol, Lincoln, Monkton, New Haven, and Starksboro. The production there was determined to be approximately 1 cord per resident per year. That is a lot of wood, if used well.

NeighborWood™

VFF is testing a firewood method that draws from the agricultural CSA model. We have 50 cords of log-length wood ready to be processed into firewood. The idea is to produce and use firewood in ways that are **sustainable, efficient, local, and fair**. The wood was harvested according to the VFF standards and will be sold green on a custom basis. The firewood will be graded according to BTUs, length, girth, and dryness and there will be customer feedback. For more information on NeighborWood™, contact us at VFF.

Vermont Reptile and Amphibian Atlas Project

The Vermont Reptile and Amphibian Atlas Project (*VT Herp Atlas*) joined forces with VFF in 2008 with Jim Andrews continuing as the Atlas Project coordinator. In 2009, work included state-wide survey, localized monitoring, and educational efforts. Much of our survey efforts have focused on the Eastern Ribbonsnake.



We recently received an exciting report and photos of an Eastern Hog-nosed Snake. Since this species has never been documented in Vermont, Jim traveled to Vernon, where the snake was seen, and confirmed that it was indeed the first of its kind in the Green Mountain State.

Oak-Pine-Northern Hardwood Forest Research Project



Marc Lapin completed a project funded by the Vermont Department of Fish and Wildlife to identify, map, and rank the best examples of Oak-Pine-Northern Hardwood Forest blocks in Vermont.

Colby Hill Ecological Project

For ten years, a team of scientists for the Colby Hill Ecological Project (CHEP) has documented patterns of biological diversity in ecosystem and natural community types, birds, mammals of all sizes, amphibians and reptiles, vascular plants, and insects in the beetle, butterfly, dragonfly, and ant orders. The CHEP team has also recorded the history of land since the towns of Lincoln and Bristol were established. The team also erected a weather station last year. Learning about the land and the organisms that live on and travel through it helps us to learn and establish a baseline from which to judge ecological changes and expand our knowledge of wild forests that are re-claiming old hill farms. In the coming year, we plan to compose and distribute materials to report and reflect on the knowledge we’ve gathered from the land over the past decade.

PUBLIC EDUCATION

*“The two great ruiners of private land
are ignorance and economic constraint.”*

—Wendell Berry

VFF hosted a Five-Town Forest Community Wood-Biomass Energy Workshop in Lincoln with UVM Extension and the Northern Forest Alliance. VFF also partnered with the Addison County Regional Planning Commission in a public involvement session on wood energy.

Game of Logging

Seven sessions of the Game of Logging (GOL) – Levels I through III – were sponsored in 2009. GOL was developed in Sweden by Soren Eriksson to improve safety, quality, and productivity. More than sixty-five students attended the day-long sessions.

Going to Bat for the Indiana Bats

VFF has been working to conserve 194 acres of prime Indiana bat habitat, uncommon oak forest communities, a rare talus woodland, and recreational access just west of the Waterworks Property in Bristol. The Vermont Department of Fish and Wildlife will hold a conservation easement. Visit our website to read more about this work for the bats.

Community Partnerships



In the Fall '09 semester, VFF served as community partner with a Middlebury College environmental studies class. Under the direction of Professors Chris Klyza and Diane Munroe, the students will determine if procurement standards are needed for the college's new wood-fired facility, which uses 20,000 green tons annually. A final report will be delivered in December.

Town Forest Health Check

The Vermont Town Forest Project was initiated in 2005 to strengthen connections between Vermonters and the forests they live near, to encourage citizen stewardship of those forests, and to establish and expand town forests. There are 150 town forests sprinkled throughout Vermont. UVM's Green Forestry Education Initiative and VFF created the Town Forest Health Check to provide a simple, straightforward, and (we hope) enjoyable tool for town forest stewards that will help them assess the health of their community's forests. A preview of the Health Check was conducted at the Jericho Research Forest in October (see www.greenforestry.org). See page 6 of this report for more details.

Re-Wilding the Working Landscape

Drawing upon scientific observations on Monique and Lester Andersons' self-willed forest in Lincoln, Vermont (known as the Colby Hill Ecological Project), Vermont Family Forests is working on a guidebook for forest owners that suggests ways to interact with the forest community that will keep it healthy and wild. Called *Re-wilding the Working Landscape: First Lessons from a Self-willed Family Forest*, this guidebook will explore key elements within the forest community, such as soil, surface water, natural communities, and so on. It will suggest hands-on practices that engender a deeper knowing of each element and will recommend practices that aid the forest's innate ability to re-wild itself.

FAMILY FORESTRY

"Without application, principles and ideals have no bearing and no test."

—John Dewey

1000 More Acres: VFF Conservation Forester Brendan Weiner has been busy conducting forest inventories and writing comprehensive forest management plans. These new plans incorporate the recently-approved changes in the Vermont Use Value Assessment Program and provide for more emphasis on the ecological functions and values of forests and a bit less emphasis on timber management. Ten new properties were added to the VFF pool in 2009 in Huntington, Shoreham, Lincoln, Weybridge, Fayston, and Cornwall.

DEMONSTRATION

"All sustainability is local."

—William McDonough



VFF at the Waterworks Property

With funding from the USDA Natural Resources Conservation Service, VFF worked with Jennifer Turner and Bill Torrey to release 300 legacy mast trees including red and white oaks, black cherry, hickory, and beech in the eastern uplands. This will improve fruit production and increase large dead wood on the forest floor. We also worked with Bruce Many, of Panton, to renovate more than 3.5 miles of main trails and to repair recent damage caused by ATVs. A training session was conducted for Vermont's county foresters to address recent changes in the Use Value Program.

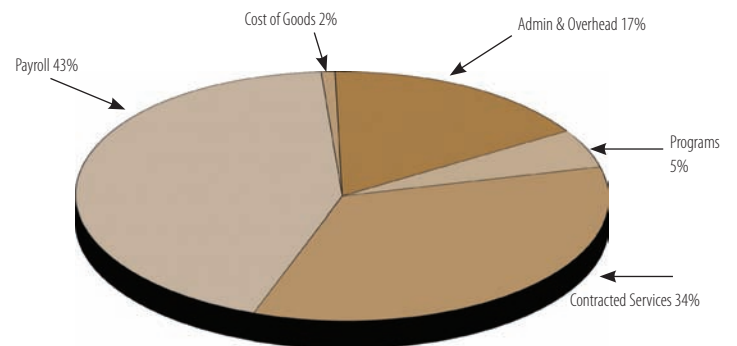
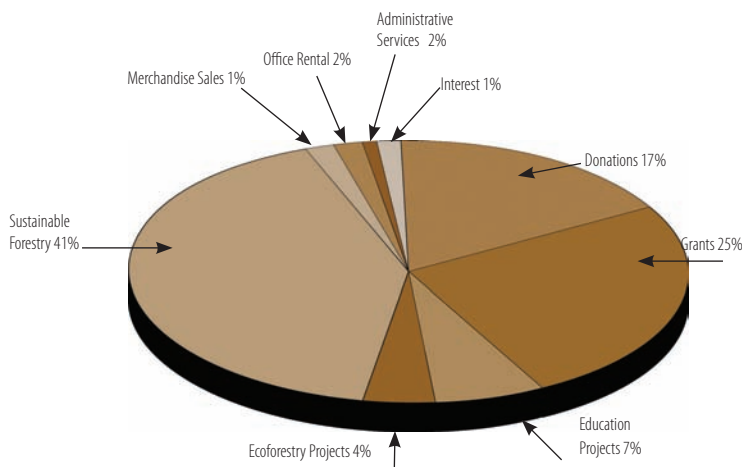


FINANCIAL STATEMENT

INCOME

Donations	\$ 27,857.92	Admin and Overhead	\$31,126.49
Grants	41,710.37	Programs	9,451.89
Education Projects	10,668.00	Contracted Services	64,270.51
Certified Ecoforestry Projects	6,548.50	Payroll	81,182.64
Sustainable Forestry	67,774.44	Cost of Goods	1,299.41
Demonstration	(103.00)		
Merchandise Sales	2,666.93		
Office Rental	3,000.00		
Interest	1,176.63		
Administrative Services	2,160.50		
Total Income	\$163,460.29	Total Expenses	\$187,330.94

EXPENSES



VFF at the Jericho Research Forest

With the help of a generous grant from University of Vermont alum Susan Orr, VFF designed and assisted in the renovation of a 1000-square-foot pole barn built in 1969. The white pine and Japanese larch lumber came from stands planted in the forest in 1941. All of the recent management was by UVM forestry students employing the VFF standards. State-of-the-art forwarder logging was completed by Paul Cate and Bill Torrey. Lumber was sawn and air-dried on site. The Leichlembau—or light clay—method was used to insulate the 14.5-inch-thick walls. Wood shavings from the Healthy Forests Humble Bowls class were mixed with locally-procured clay to produce the insulation. According to the USDA Forest Products Lab, the centuries-old method has an R-factor of about 1.8 to 2 per inch. It also has a thermal mass that holds heat exceptionally well and it does not create a moisture barrier. Sixty-five students participated in the renovation project.

CELEBRATION

“The greatest soul restoration is that which is done on behalf of the earth.”

—Irish Wisdom

VFF co-sponsored Beltane, Winter Solstice, and Bristol Best Night events again this year. The Beltane celebration at the Waterworks included maypole decorating music by Rick Ceballos and Albert Joy as well as The Five-Town Drummers. The Winter Solstice event included music by Sue Borg and Dick Nessen. And more than 400 people attended the seventeen Best Night performances at Holley Hall, the Bristol Baptist Church, and the newly-added Walkover Gallery location.

HEARTFELT THANKS TO ALL OF OUR SUPPORTERS

Lester and Monique Anderson
Many Anonymous donors
Jason and Nina Bacon
Phoebe Barash
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Deborah Brighton
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Middlebury College
Mount Abraham Union High School
Otter Creek Audubon
The University of Vermont
The Watershed Center



Vermont Family Forests™ is a nonprofit 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.

Staff

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THE TOWN FOREST HEALTH CHECK

Developing a Town Forest Steward's Guide To Forest Health Assessment

Executive Summary

Healthy forests are the foundation of a healthy forest economy and community. Aldo Leopold wrote that “Health is the capacity of the land for self-renewal.”¹ A need exists to make the core elements of forest health conservation more accessible to citizens and to create opportunities for developing—as Aldo Leopold suggested—a more intense consciousness of the land. However, conserving forest health in a societal context is a complex undertaking involving many variables including the land, the different and sometimes-conflicting uses of the land, and a diverse set of ownership types, values, and objectives. By definition, this community-based approach to forest health conservation requires the use of collaborative processes that involve the community and that integrate ecology, economics, and ethics. Although the data ultimately generated by town forest stewards will be useful in describing the health of their town forests, the primary value of *The Town Forest Health Check* will be to focus interest and to serve as a tool for increasing public awareness and citizen involvement in town forest conservation.

Project Goal and Objectives

The **primary goal** of The Town Forest Health Check Project is to conserve town forest health by increasing the awareness and active involvement of town forest stewards and the general public.

The **objectives** of The Town Forest Health Check Project are:

- ✱ To identify eight to ten indicators or benchmarks that give reliable insights into forest health at the stand level.
- ✱ To create a guide with and for town forest stewards to use in effectively, efficiently, and enjoyably assessing the ecological health of their town forests.
- ✱ To develop reference areas at the UVM Jericho Research Forest to demonstrate the use of the guide in assessing forest health in a variety of forest community types, ownership objectives, and forest management methods.
- ✱ To conduct hands-on gatherings and exploratory workshops with town forest stewards and others at the UVM Jericho Research Forest on the use and continued refinement of The Town Forest Health Check.
- ✱ To publish an article in *Northern Woodlands* on the development and use of The Town Forest Health Check by town forest stewards.

¹ Aldo Leopold. *A Sand County Almanac*. New York: Ballentine Press: 1949.

THE BENCHMARKS

Legacy Tree Benchmark – There are a minimum of three wind-firm legacy trees measuring over 20 inches DBH per acre.

Tree Species Richness Benchmark – Native tree species richness is maintained and/or enhanced when pre- and post-treatment levels are compared.

Snag & Cavity Trees Benchmark – There are a minimum of four large, secure cavity or snag trees per acre with one exceeding 21” diameter at breast height (dbh) and four exceeding 15” dbh.

Access Paths and Trails Benchmark – Erosion control structures such as water bars, broad-based dips, and turn-ups are properly installed on all forwarding paths and skid trails at intervals according to Table 1 of the Vermont AMPs.

Log Landing Benchmark – Log landings are: located on nearly-level, stable ground; kept out of protective strips; and are graded to prevent soil erosion and stream sedimentation.

Stream Crossing Benchmark – Streams are crossed with bridges or culverts that are: properly sized according to Table 2 in the Vermont AMPs and carefully installed perpendicular to the stream.

Large Downed Wood Benchmark – There are a minimum of four large downed trees per acre on average, with one exceeding 21” dbh and four exceeding 15” dbh.

Small Woody Debris Benchmark – All leaves, needles, and tree limbs less than 3 inches in diameter are left in or close to the place where they were felled.

Stream Protective Strip Benchmark – Protective strips that exceed the minimum widths listed in Table 4 of the Vermont AMPs, have little or no bare mineral soil or ground disturbance, and have at least 70% crown closure are left adjacent to all streams and other water bodies.

Stream Condition Benchmark – All streams and other bodies of water are kept free of logging slash, debris, and waste.

Ecologically Sensitive Areas Benchmark – Sensitive areas such as rare natural communities, woodland seeps, vernal pools, old forests, and forested wetlands are properly identified, mapped, and conserved according to applicable BMPs.

Non-Native Invasive Tree & Shrub Species Benchmark – Invasive tree and shrub species are absent.