

VNRC

Vermont

Environmental Report

Published
by the
Vermont
Natural
Resources
Council, Inc.



Downtown Rutland

VERMONT'S ECONOMY:
*The pot of gold at the end of the
environmental rainbow*

Summer
2002



UNITING FAMILY FARMS WITH THE OLD-WORLD ART OF CHEESEMAKING

GOATS' MILK: BONNE-BOUCHE • CHÈVRE • CHEVRIER
FETA • IMPASTATA
COWS' MILK: CRÈME FRAÎCHE • CULTURED BUTTER
FROMAGE BLANC • MASCARPONE • QUARK

WEBSTERVILLE, VT • 800-884-6287
WWW.VTBUTTERANDCHEESECO.COM

We're Partners in Your Gardening Success...



*Helping you grow gorgeous flowers and
healthy vegetables in harmony with nature!*



GARDENERS

SUPPLY COMPANY

128 Intervale Road, Burlington, Vermont • www.gardeners.com
802.660.3505 • Mon-Fri 9-6 | Sat-Sun 9-5



**VERMONT
NATURAL
RESOURCES
COUNCIL**

VERMONT'S ENVIRONMENTAL
GUARDIAN SINCE 1963

VNRC BOARD OF DIRECTORS

Mark Naud, *Chair*
Susan Clark, *Vice-Chair*
Bill Amberg, *Treasurer*
Dale Guldbrandsen, *Secretary*

Stark Biddle
Mary Ann Carlson
Matthew Huntington
Dick Munro
John Nutting
Will Rapp
Virginia Rasch
Mark Schroeder
Elizabeth Skarie
Ellen Taggart
Seward Weber
Len Wilson

VNRC STAFF

Elizabeth Courtney, *Executive Director*
Patrick Berry, *Communications Director*
Matteo Burani, *Outreach Coordinator*
Deb Daniels, *Financial & Membership
Coordinator*
Jimmy Fordham, *Office Manager &
Administrative Assistant*
Stephen Holmes, *Sustainable Communities
Program Director*
Kim Kendall, *Staff Scientist*
Kelly Lowry, *Water Program Director &
General Counsel*
Stephanie Mueller, *Development Director*

PUBLICATIONS

Stephanie Mueller, *Editor*
Tim Newcomb, *Design*



The Vermont Natural Resources Council, Inc., is a nonprofit environmental organization founded in 1963 to protect Vermont's natural resources and environment through research, education, and advocacy.

VNRC is the Vermont affiliate of the National Wildlife Federation.

VNRC membership includes a subscription to the *Bulletin* and the *Vermont Environmental Report* magazine (both published twice annually). Join VNRC in protecting Vermont with your membership of \$35.

Copyright © July 2002, VNRC

Vermont Environmental Report

Published by the Vermont Natural Resources Council, Inc.

Summer 2002

TABLE OF CONTENTS

THE INSIDE WORD

Baking on Vermont's Natural Capital, by Elizabeth Courtney Page 2

OPINION

Bush's Plan Jeopardizes Public Health, by Governor Howard Dean Page 3

VERMONT PERSPECTIVE

The End of the West Mountain Debate?; Lake Bomoseen Wetland Reclassification Petition; Puzzling Loss of Good Energy Bill; Septic Issue Finally Unlogged; Clyde River Back In the Spotlight; The Land Use/Property Tax Connection; Save Our Waters!; Jackson Bridge Dam Removal Update Page 4

FEATURE ARTICLES

The Color of Our Money: 'Natural Capital' A Driver of Vermont's Economy, by Will Lindner Page 8

'Not Open for Business': Vermont Fails to Grasp the Promise of Renewable Energy, by Will Lindner Page 14

The Death of a Good Energy Bill, by Will Lindner Page 20

VNRC LOCAL REPORTS

Trash, Trucks and Community Preservation, by Sally Dodge Mole and Dale Guldbrandsen Page 22

Take Action! Page 24

VNRC'S DESTINATION AWARD WINNER

Take a Ride on the Clyde, by Pete Land Page 25

VNRC NEWS & NOTES

Celebrate VNRC's 40th Anniversary!; Special Thanks to John McConnell; Meet VNRC's Mollie Beattie Intern; Meet VNRC's Red Arnold Intern; 2002 Vermont Wildlife Habitat Forum: A Dialogue on Conservation; Bob Woodward Memorial Gift; Summer and Fall FUN!!! Page 26

Credits: Cover photograph, Page 8: The Rutland Herald; Page 5, 7, 11, 13: Blake Gardner; Page 6: Atlantic Salmon Federation; Page 15: Solar Works; Page 16: Will Lindner; Page 19: Tom Hanlon; Inset of Manchester Village, page 22: Dale Guldbrandsen; Page 4, 24: Pete Land; Oak Tree Inset, page 27: Matteo Burani

The opinions expressed in the *Vermont Environmental Report* are not necessarily those of VNRC. VNRC reserves the right to refuse advertising that is not in keeping with the objectives of the organization.

BANKING ON VERMONT'S NATURAL CAPITAL

BY ELIZABETH COURTNEY, Executive Director

Last month I had the honor of accepting an award from the Greater Burlington Industrial Corporation (GBIC) for VNRC's work on the stormwater bill, which passed the House and Senate and was signed into law by the Governor in June, 2002. GBIC is a private, nonprofit, economic development corporation supported primarily by Chittenden County businesses. Historically, VNRC and GBIC have been on opposite sides of the fence on most issues.

There were many unusual aspects in the process leading up to the passage of this bill, not the least of which was the vital collaboration between VNRC and GBIC. Some have called it revolutionary in light of the fact that environmental and economic interests do not usually partner together to find solutions. In this case, we recognized that there would be no winners in a knock-down-drag-out fight over the language of this bill. The fact is that "the times, they are a changin'." And VNRC is exercising leadership in the development of a creative revolution by bringing dynamic solutions to our most pressing environmental problems.

I think it's safe to say that collectively, the marketplaces of the world today support a global economy that is more influential than any single government in the world, even the U.S. government. And if this is true, it's probably also safe to say that we can't restore the health of the natural systems that our very lives depend upon until we recognize that the preservation of the environment makes practical sense for businesses' bottom line.

...using nature as a capital resource, rather than a source of raw materials, could benefit both the environment and the economy.



Elizabeth accepting an environmental partnership award from the Greater Burlington Industrial Corporation in June, 2002.

That is a revolutionary concept for the consumer driven society we live in.

This issue of the *Vermont Environmental Report* (VER) focuses on the interdependence of the environment and the economy. Eight years ago, we published a similar VER titled *The Economy and the Environment, Working Together to Sustain Vermont*. At the risk of being overly simplistic, the fundamental

message in that 1994 edition was that Vermont's environment was good for Vermont's economy, because the clean-healthy-Vermont-environment cache sold in the marketplace.

To a large degree, valuing the environment as a commodity still works today. But years after the 1994 publication, we have the benefit of some new ways of thinking about the relationship between the environment and the economy. A major influence on

our thinking here at VNRC is the writing of Amory and Hunter Lovins and Paul Hawken in their new book, *Natural Capitalism*. The authors' basic thesis is that using nature as a capital resource, rather than a source of raw materials, could benefit both the environment and the economy. If we value Vermont's environment as a product to sell, we could "use it up" over time. Whereas if we value Vermont's environment as a source of capital to invest in, we could use it to sustain us over time.

In the Will Lindner article in this issue, '*Natural Capital*' A Driver of Vermont's Economy, we refer to the story about NYC's water filtration system. In 1997, the EPA ordered New York City to build a \$6 billion

water purification system to protect its residents from increasing contamination of its drinking water which comes from the Catskills and the Adirondacks. But the the city of New York had a different idea. It purchased, restored and protected critical areas in the watershed at the source of the contamination. Six years later the city had the system in place for only \$2 billion. The city of New York realized a 66% savings by employing the state's natural capital, choosing to invest in the natural systems of stream banks and wetlands to do the job for them at no extra cost over time!

My invitation to Vermonters, regulators, legislators, decision makers and to Vermont businesses is to join with VNRC; get creative, by envisioning a Vermont that would invest in its abundant natural capital rather than squander it. And to help with the visioning, I invite you to read, along with the staff and Board of VNRC, the book, *Natural Capitalism*.

And join Vermonters in changing our way of thinking about the nature of things in Vermont. Revolutionary, isn't it? 🐾

BUSH'S PLAN JEOPARDIZES PUBLIC HEALTH

BY GOVERNOR HOWARD DEAN

President Bush recently released his proposal to combat air pollution in the United States, a plan that concerns me both as a physician and as a governor. This plan sets out emission caps for three power plant emissions – nitrogen oxides, sulfur oxides, and mercury, but takes no action to address carbon dioxide, the cause of global warming.

Contrary to administration press releases and statements made by EPA Administrator Christine Todd Whitman, this new initiative actually allows higher releases of pollutants than would be allowed under existing law. By simply enforcing the Clean Air Act now, we would have greater protection for human health and the environment.

As a doctor, I find this particularly disconcerting. Besides the serious environmental problems caused by power plant emissions – acid rain, global warming, and ozone damage – power plant pollutants can seriously damage human health. The EPA already estimates that 110 million Americans live in areas with unhealthy air.

This weakening of the Clean Air Act, designed to benefit the President's friends in the energy industry and particularly in the coal sector, represents an attack on human health.

Air pollution from power plants greatly increases the risk of respiratory problems. For example, smog and fine particle pollution from power plants increases asthmatic



Unfortunately, the Bush Administration has chosen instead to sacrifice the public health of Americans to the private benefit of the coal industry.

attacks. Asthma is a chronic disease characterized by inflammation of the airways and lungs, and is increasing at a faster rate than any other chronic disease. In the United States, more than 14 million adults and four million children suffer from asthma, and it causes 5,000 deaths per year.

Power plants also release mercury. Coal burning power plants release more mercury than any other source in the country – nearly one third of all the mercury pollution in the United States. Mercury is a toxic metal that causes brain, lung and kidney damage. In Vermont and most of New England, mercury contamination means we cannot eat much of the fish we catch in local rivers and lakes because it can present a serious danger to developing children. This is not just a regional problem – the National Academy of Sciences released a report last year stating that over 60,000

children a year across the United States suffer from neurological and developmental damage due to mercury contamination. This is why the New England Governors' Conference has made reduction of man-made mercury one of our top priorities.

Fine particulate matter pollution from power plants also has a serious health impact. Research has shown that these fine particles are inhaled more deeply into the lungs, and are linked to premature deaths from respiratory illness. It is estimated that particulate pollution

contributes to the premature deaths of 30,000 Americans each year. The same systems that capture mercury and sulfur dioxide – which the Bush plan would allow power plants to avoid installing for many years – can significantly reduce particulate pollution.

Targeting the emissions from coal-fired power plants, particularly older, dirtier plants, is the most effective way to improve air quality. But the Bush administration has announced plans to do away with the "New Source Review" provision of the Clean Air Act, which requires older, dirtier plants to update their pollution controls whenever they make major modifications. Over the past few years, numerous large power companies had agreed to make major pollution reductions under NSR. But the current administration proposes to undo this progress by essentially doing away with the program, and not replacing it in the President's new plan.

Senator James Jeffords, I-VT, has proposed an alternative approach to protect air quality. His plan, which I support, makes aggressive cuts in emissions, including strict limits on carbon dioxide levels. The reductions called for in the Jeffords' plan are not pie-in-the-sky – they are within reach with existing, commercially available technologies.

Given that Vermont is downwind from the rest of the nation, pollutants from many of our nation's most industrialized regions find their way to our corner of the country. To address the major environmental and health issues linked to power plant pollution, we must have a sound goal and sound policy direction. Virtual elimination of contaminants, new technologies, and renewable sources of energy could provide the solutions we need to truly have clear skies. Unfortunately, the Bush Administration has chosen instead to sacrifice the public health of Americans, especially children and the elderly, to the private benefit of the coal industry.

THE END OF THE WEST MOUNTAIN DEBATE?

In 1999 the Vermont legislature knew a good deal when it saw one. 133,000 acres of Champion International timber land went up for sale in the Northeast Kingdom, a region of Vermont rich in ecological, recreational, and timber resources. The State threw its hat into the ring by passing language that consummated the largest land purchase between public and private interests in Vermont's history. When the deeds changed hands, a huge chunk of the Kingdom was forever protected from development, guaranteeing a future based on sustainable timber harvest, protection of natural resources, and access for countless forms of traditional use.

But what was once viewed as a complicated collaborative endeavor—actually getting all of the parties together to buy the land in the first place—may now seem tame by comparison considering what has transpired since 1999. For the last 2 years, folks bent on unraveling the deal have waged an unnecessary war with no clear enemy. Although the target of their ire and frustration has been ever-changing, it finally settled on one thing: a 12,500 acre "Special Treatment Area" on the state owned West Mountain Wildlife Management Area that is off limits to logging due to the high density of ecological values. In a not-so-grand finale, anti-Champion forces, led by the camp owners and supported by industrial timber interests and some of the hunting



VNRC field trip participants enjoy Lake Bomoseen.

and fishing community, dragged their case before the 2002 General Assembly. In the end, nothing happened.

Enough elected officials, especially Governor Dean and members of the Senate, just weren't convinced by the rhetoric that the Nature Conservancy was going to take Vermonters' guns away, that the entire economy of the Northeast Kingdom was going to collapse because a tiny land parcel was off limits to logging, or that the state should not protect one of the highest densities of ecological resources in Vermont. Thank goodness for that.

LAKE BOMOSEEN WETLAND RECLASSIFICATION PETITION

VNRC continues its project to protect Vermont's best and brightest wetlands. We have been working for some time now to identify and reclassify

deserving wetlands from Class II, Vermont's default wetland classification, to Class I, the highest level of protection under state law. Although the Vermont Wetland Rules anticipated the Agency of Natural Resources conducting this work, the Vermont Wetlands Office is understaffed and underfunded, and has been unable to file petitions to reclassify wetlands under their deserving status. VNRC has thus taken over the State's role on this issue and is actively working with the Wetlands Office, watershed groups, citizens, conservation commissioners and others to reclassify wetlands. Thus far, we have successfully petitioned the Water Resources Board for reclassification of two very important wetland complexes, and have completed the fieldwork for several more.

One of the wetlands for which we have completed all the fieldwork and legal analysis is the Lake Bomoseen Wetland. Located on the

northern end of the lake, this extraordinary wetland provides fantastic habitat for migratory waterfowl and other wildlife, supports threatened and endangered species, and provides significant water quality benefits by filtering impurities and metabolizing nutrients like phosphorus and nitrogen. The wetland also provides Vermonters with a great opportunity to explore the State's natural resources in a lovely setting. It is, by definition, exceptional and irreplaceable to Vermont's natural heritage, and should be reclassified as a Class I wetland.

VNRC is preparing to file this petition as this issue of the *VER* is going to press. Please keep your ears open and write a letter of support to the Water Resources Board after the petition is filed. Their address is Water Resources Board, National Life Records Ctr. Bldg, Drawer 20, Montpelier, VT 05620-3201.

PUZZLING LOSS OF GOOD ENERGY BILL

Prior to the start of the 2002 Legislative Session, and even halfway through it for that matter, it seemed as though Vermont was on its way to some modicum of energy independence and a burgeoning renewable energy industry. By mid-session, the Senate passed a renewable energy bill, S.264, just one vote shy of a unanimous endorsement.

As passed by the Senate, S.264 would have created a host of incentives for providing, purchasing, and investing in renewable energy and energy efficiency in Vermont. The bill would not have cost taxpayers one cent. However, the renewable energy businesses, environmental organizations, agency and administration staff, and elected officials who collaboratively worked on the legislation had to watch their hopes crumble as the House first gutted the bill and then killed it altogether.

The reason? In the waning days of the session, IBM pitched its only two cents, testifying that it would look bad for the company if it chose not to enroll in strictly voluntary "green" pricing programs. Although puzzling, the reason was apparently good enough for the House leadership to commit S.264 to a death sentence in the House Natural Resources and Energy Committee.

As it stands right now, Vermont is still mired in the fossil fuel cycle, exporting over \$1 billion a year out of state for energy. Vermonters will still be subject to the whims and volatility of Middle-East sources, while adding to the



Glastenbury Mountain, Somerset Reservoir

problems of global warming, dead and dying forest resources, and polluted lakes and streams.

SEPTIC ISSUE FINALLY UNCLOGGED

The debate about overhauling Vermont's system for managing on-site sewage by allowing the use of alternative technologies has been going on for almost a decade—which makes for great humor now that the issue has been resolved.

"Septic issue finally unclogged." "On-site sewage management no longer backed-up." But until a viable solution to the impasse was reached in the 2002 session, the issue was not so funny.

From VNRC's perspective, the unintended consequences that could have resulted from allowing the use of alternative systems in a vacuum, an

invitation to degrading water quality and creating sprawl, were far too real. Going into the session it looked as if the state was willing to permit new systems to be built on thirty percent slopes, allowing sprawl to creep its way up mountain sides. Officials seemed willing to accept little or no planning and zoning requirements, which would have opened up 50% more land to development, much of it without review. And there was no intention, either in the legislature, or at the Vermont Agency of Natural Resources, to map groundwater so that sewage would not find its way through the soil and into drinking water supplies.

VNRC was instrumental in including language to insure that the use of alternative and innovative systems could move forward with sufficient safeguards in place. Slopes are limited to 20%. Planning and

zoning are required if towns are to allow the use of alternative systems. And the state must complete groundwater mapping by 2007, a provision that should protect both surface and groundwater from contamination by prohibiting systems on sites where the margin for error is too slim.

The ultimate horse trade relating to alternative septic systems, however, has always been the closing of the "ten acre loop-hole" which allowed conventional systems to be installed on lots 10 acres or larger without any review. ANR personnel estimate that two-thirds of all septic systems in Vermont have never gone through any review. Now that the loophole has been closed, ANR has universal jurisdiction over all on-site sewage disposal systems, a move that should guarantee greater protection of groundwater and drinking water supplies.

CLYDE RIVER BACK IN THE SPOTLIGHT

For all of you members who were reading the *VER* in the early 1990s, the Clyde River Hydroelectric Project should ring a few bells. VNRC played a major role in forcing the removal of the Newport #11, one of the dams in this project. It was the first time a dam owner was compelled to remove a dam for environmental reasons. There are four dams, however, which remain in place, and they have yet to receive certification under the Clean Water Act by the State of Vermont that the proposed operation of the project will not violate the Vermont Water Quality Standards.

Back in October, 2001, the Agency of Natural Resources, the entity which certifies hydroelectric projects on behalf of Vermont, released a draft certification decision for the remaining facilities on the lower Clyde. This certification included flows in the bypassed reaches of the river to ensure that fish would have enough habitat to live and breed. It also would allow the fish to migrate as necessary to accomplish these life tasks.

The utility that owns the project, Connecticut-based Citizens Communications, expressed displeasure with these conditions, and its attorney, Barbara Ripley, the former Secretary of the certifying agency, lobbied the administration and the agency for less stringent conditions. Ultimately, this political pressure was sufficient to cause the agency to buckle.

On June 11, 2002, the agency issued a second proposed certification decision with significantly reduced



flows in the river. Documents acquired by VNRC from staff persons in the agency reveal that the agency's fisheries expert and the agency's water quality division believe the conditions proposed in the draft certificate do not satisfy the Vermont Water Quality Standards. Connecting the dots is a simple task: political maneuvers have caused the agency to issue a certification decision that its own experts believe to violate Vermont law and the federal Clean Water Act. VNRC intends to challenge the Agency's position. If the final certificate has the same terms and conditions as the draft, VNRC will file an appeal.

THE LAND USE/PROPERTY TAX CONNECTION

Last year VNRC and the Vermont League of Cities and Towns (VLCT) recognized that there was a great deal of confusion and uncertainty about the relationship between land use decisions and property taxes. We realized that Vermonters could make better decisions if they had access to better information on the tax implications of growth and land conservation. The Federal EPA and Vermont Community Foundation agreed with us and granted our two organizations a

Livable Communities Grant to fund this project.

During the first year of the study, VNRC and VLCT hired consultants Deb Brighton and Brenda Hausauer to help us compile the data and prepare a report. The second year of the study culminated with a tour of the state designed to share with Vermonters our findings. Most folks were surprised to know that the research shows that in general, development does not lead to lower tax bills. As a matter of fact, the study shows that towns with more development have higher tax bills.

Taken to the extreme, these findings would suggest that a way to lower property taxes would be to make sure that there were no people to serve in your town. Obviously this is not a possible, nor a desirable planning goal. A more realistic recommendation is to balance the types of land use in your town. This study and its accompanying guide are designed to clear up some of the myths and mystery so that townspeople can make more informed decisions.

VNRC and VLCT held 6 workshops co-sponsored by nine regional planning commissions in the winter and spring of 2002. The well attended workshops were a chance to present the results of our research and get feedback from local officials and citizens. The final report and workbook will be published and distributed this summer.

SAVE OUR WATERS!

For the past few years, the issue of stormwater pollution has commanded significant attention from environmental activists, legislators, business interests, and sportsmen and

women. The reason for this attention is simple: stormwater pollution is the single most pressing water quality problem in Vermont. Its effects may be seen in waters all over the state, from the Main Lake section of Lake Champlain, a large open body of water, to Tributary 1 of Ball Mountain Brook, a high-gradient mountain stream in the Green Mountains. Wherever the pollution occurs, it harbors the same destructive power for our natural resources, whether it is in terms of the hydrologic modification of a stream channel or the nutrient enrichment of a lake or pond.

VNRC has been in the vanguard of those organizations forcing this issue to the center of attention. While much of work has been done in this area, more challenges to address the myriad problems with stormwater pollution remain before us. The Agency of Natural Resources is proceeding with its "Watershed Improvement Permits," general permits that will be issued to each of the twenty-six waters that fail to meet Vermont Water Quality Standards primarily due to stormwater pollution. Earlier this summer, the Agency released the first four of these permits in draft form. VNRC submitted extensive comments on the permits describing the need for serious modification in some areas. For instance, VNRC believes that the agency should eliminate the cost considerations for determining how and when old, out-dated stormwater pollution control systems have to be brought up to modern standards. In addition, VNRC believes that the permits must include a transparent, enforceable schedule for attainment of

water quality standards in these waters. The people of Vermont deserve to know the criteria the Agency will use to determine whether these Watershed Improvement Permits are actually working, and what will happen if they are not.

On July 1, 2001, the agency issued the final versions of these four permits. Although the agency agreed with one of VNRC's proposed changes, it elected against including most of them. VNRC is preparing to challenge the permits on appeal to the Water Resources Board to ensure that all necessary controls are in place to bring these waters in attainment in a short period of time.

JACKSON BRIDGE DAM REMOVAL UPDATE

For the past two years VNRC has been working with the Town of Hardwick and the Hardwick Electric Department to remove the Jackson Bridge Dam and restore a section of the Lamoille River. VNRC's interest is in restoring a degraded river into a free-flowing, natural condition with high quality habitat for trout and other aquatic animals. The issue for the town and the Electric Department though is really an economic issue. The Electric Department owns the dam, and the dam creates a huge liability for the Department's ratepayers. It is an aging dam that provides little to no economic benefit. Either the ratepayers or the town will be responsible for funding a major overhaul that Electric Department officials believe will be necessary in the foreseeable future. Dam removal, on the other hand, would be a cheaper alternative

and could be funded by a partnership of private and governmental organizations.

VNRC has offered to facilitate that partnership for the town so that dam removal, river restoration and public access to the river will be of no cost to the town or the ratepayers of the Electric Department. Citizens of

Hardwick will have the opportunity to vote on dam removal during a special meeting in early September.

VNRC is interested in helping more communities and dam owners explore removal of problem or non-functioning dams. If you have any questions, please call VNRC at 223-2328.



Branch Pond, Green Mountain National Forest



Downtown Rutland



The Color Of Our Money

NATURAL CAPITAL? A DRIVER OF VERMONT'S ECONOMY

BY WILL LINDNER

Forests perform services that are critical for the diverse, interdependent life forms that populate the Earth; they absorb carbon dioxide and emit oxygen; they stabilize soil and prevent erosion; they filter and purify groundwater.

But how does society measure the value of a forest? In board-feet.

This is the reality framed by authors Katherine Ellison and Gretchen Daily in their book, *The New Economy of Nature: The Quest to Make Conservation Profitable*. The *Boston Globe* recently reviewed the book which describes forests' values being assessed "by the worth of their dead lumber."

Amory Lovins, L. Hunter Lovins and Paul Hawken, authors of *Natural Capitalism*, outline the concept that business, social, and environmental interests are interrelated. If we can understand how the preservation of our environment makes practical sense for our economy, we can employ a win-win situation for businesses and our natural world.



*“Ultimately,
we cannot
live in an
environment so
degraded that
it threatens our
very health.
At some point
we will have
to restore it,
and the longer
we wait,
the more
expensive it
will be
to do so.”*

— Elizabeth
Courtney

“We see the world around us far too much in terms of marketable resources,” says Elizabeth Courtney, VNRC’s Executive Director. “When we use resources in that way we create a

system that is not sustainable; we’re not relying on the services our ecosystems can provide so much as on the depletable products of our ecosystems.”

Valuing forests for the lumber of felled trees rather than for the life that trees help sustain is one example. Another is wetlands, which are carelessly sacrificed for development.

“The services a functioning wetland or a climax forest delivers to us include a rich wildlife habitat, flood abatement, water and air purification,” says Courtney. “But we often overlook those valuable services in an effort to extract a building site or a parking lot from a tract of land. If we continue to favor those short sighted products over the long term services of our functioning ecosystems, those services will eventually be sacrificed.”

This is a wasteful capitalism, indeed, and results in the capital sin of throwing good money after bad. “Ultimately,” says Courtney, “we cannot live in an environment so degraded that it threatens our very health. At some point we will have to restore it, and the longer we wait, the more expensive it will be to do so.”

Natural capitalism, on the other hand, embraces the services that nature offers us virtually free of charge. And there are examples more concrete, more reducible to a balance sheet, than forests absorbing the gaseous by-products of industry and converting them into breathable air. The Big Apple provides a famous example of successful natural capitalism.

In the late 1990s the U.S. Environmental Protection Agency ordered New York City to build an elaborate filtration system to protect residents from increasing contamination of the Catskill-Delaware watershed, which provides 90 percent of the city’s drinking water. The price tag for the project would have exceeded \$6 billion.

The city proposed a different remedy: It would purchase, restore and protect critical areas of the watershed, cleaning up polluted rivers and reservoirs, removing old septic systems and barns, and financing sustainable-development programs in upstate counties that affect the watershed. Five years into the program the city had spent \$2 billion on this effort, saving two-thirds of the cost of the EPA’s septic system. According to authors Ellison and Daily, 140 other US cities, including Boston, have studied or undertaken similar water supply protection efforts.

“Most industries recognize three kinds of capital resources that affect their bottom line,” says Courtney. “There is human capital – the intelligence of their workforce, their ability to apply labor to their mission; there is financial capital, in the form of cash and investments; and there’s manufactured capital – the infrastructure they rely upon, such as roads, factories and tools.

“Natural capital is the service that ecosystems can provide, and which represent potential avoided costs.”

Absent the application of natural capital to our needs as a society, we turn to remedial efforts with heavy financial price tags: the Clean Water Act, the Clean Air Act – or the recent stormwater-discharge bill passed by the Vermont Legislature to address contamination in places like the Potash Brook.

“These are regulatory fixes that respond to the fact that we’re loading the atmosphere with carbon and that we’ve filled the waters with bacteria, phosphorous and mercury,” says Courtney, “and they are costly and inefficient. It is fundamental to the concept of natural capitalism to understand that it improves your bottom line to work in harmony with natural systems.

“We are fortunate in Vermont that our state still has some natural capital to offer.”

NATURAL ATTRACTIONS

If there is anyplace where the value of natural capital should be obvious, it is in Vermont, a state known for its serene beauty and the effect that its landscape and cultural patterns have on the human soul. Vermonters, too, need to develop a fuller sense of the services our ecosystems can provide. But on a simpler level “natural capital” has very apparent meaning in an economy so closely pegged to tourism.

Consider the fishing license: \$20 for a one-year license, or \$41 for non-residents. That’s just the start. You’ll need some gear to go with that license – rods and reels, lures and flies, waders, hooks, lines and sinkers. Vermont has plenty of good sports and anglers shops that will set you right up.

Might do some bass fishing, too? Waders won’t do you any good in 60 feet of water. You’ll need a boat... and a trailer to tow it with. And unless you plan to row around Lake Bomoseen or Willoughby, Carmi, Memphremagog or Maidstone, or the Ponds (Joe’s, Averill, Island and a dozen others), you’ll need a motor. There are marinas all over the state, with plenty of motors. Of course, motors run on gas, and we’ve got our share of convenience stores; you can fill your gas can and your tummy too.

There’s no better place to cap off a day on the water than in a Vermont restaurant – gourmet dining in a provincial setting. For overnight accommodations we’ve got motels, inns and

bed-and-breakfasts galore. As the politicians love to say, we're open for business!

Here's the kind of business angling does for the state: In 2000, a total of 130,676 people bought fishing licenses in Vermont. More complete statistics are available for 1996, which demonstrate the economic impact upon our small state of the rod-and-reel enthusiasts. A study of Vermont by the American Sport Fishing Association (ASFA) broke their expenditures into several categories: fishing licenses, \$3.3 million; fishing gear, from high-end graphite rods to lowly lures and sinkers, \$10.3 million; fishing boats, \$31.4 million; food and refreshments, \$13.8 million; lodging, \$6.8 million. Plus, there are dozens of other categories of economic activity boosted by fishing. In all, the ASFA estimated that the industry contributed \$178 million to the state's economy in 1996, and provided 2,761 jobs.

What Vermont had to do to earn that money was keep its water resources clean. That has not been an inconsiderable task, because like most places we had squandered our natural capital. When the federal Clean Water Act was enacted in 1972 almost 90 percent of Vermont's municipalities discharged raw or scarcely treated sewage into the state's waterways. In the effort to comply with the Act's requirement that waters be made "swimmable and fishable," Vermont has spent in excess of \$80 billion (more than half of it federal money); and almost as a cruel joke, the direct discharges targeted by the Clean Water Act have been replaced, as a water-pollution problem, by non-point sources such as farmland runoff and high-elevation contamination from acid precipitation, which works its way down into our surface waters.

The battle to reclaim our lakes and rivers has not been won. But the millions we derive annually from the angling trade – not to mention kayaking, boating and other water activities – underscores the importance, strictly in economic terms, of reclaiming the natural capital we inherited.

VALUING WILDERNESS

Vermont potentially gains economically from all its natural resources. Our state parks (which generate \$61 million annually for the state), our trail systems, our fields and forests with their bird habitats and deer herds, also represent elements of a commodity that people are willing to pay for – an attractive, well-protected natural environment.

But trade is not the only way to gauge the economic value of environmental protection. In this 21st century, significant numbers of people need not live near their sources of income. Manufacturers and service providers, too, if their leadership desires, can be located at some distance from their customers.



Bellows Falls — Connecticut River

These realities have wrought a change in land values. Where wilderness has been protected – the Green Mountain National Forest, and by extension, perhaps, the state parks – nearby property values have increased.

"Parcels located in towns that contain wilderness have per-acre sales prices that are 13 percent higher than towns without wilderness," Spencer Phillips, a resource economist with The Wilderness Society, wrote in a recent study, "Windfalls For Wilderness; Land Protection and Land Value in The Green Mountains." The report was based on analysis of 300,000 tax returns between 1987 and 1997.

"Furthermore," it continued, "the price of parcels decreases by 0.8 percent per acre with each kilometer farther away from the nearest wilderness boundary. Other things being equal, a parcel that sells for \$1,000 per acre in a town without wilderness would be expected to sell for \$1,130 per acre if it were in a town with wilderness. Similarly, if the

Where wilderness has been protected, nearby property values have increased.



\$1,000/acre parcel could be moved to another town, the center of which is 10 kilometers farther away from a wilderness boundary, it would be expected to have a

lower price of \$923 per acre.” Not long ago such areas, distant from our business centers, might have constituted an economic backwater.

“(Remote location) isn’t such a big deal anymore,” said Phillips in a recent interview, “particularly if you are close to reasonably reliable air service, within the reach of UPS and FedEx and a phone line. Certainly part of the reason you see increases in land values near protected areas is that people now can bring their own economic opportunities with them.”

And while ski areas constitute a mixed blessing for the environment – by their nature, they impact fragile, high-elevation land and water resources, yet they also are an economically advantageous use of natural resources – Phillips’ observation about land values holds true here as well. “For urban office workers, commuting distance to the central business district” may be a determinant of property values. “In the Northern Forest,” Phillips writes, “whether a ski lift is nearby could be more important.”

A subsequent (2002) Wilderness Society report quotes economists Freudenburg and Gramling (1994): “...(I)t needs to be recognized as a serious empirical possibility that the future economic hope for resource-dependent communities... could have less to do with the consumption of natural resources than with their preservation.”

Such information is important, Phillips said, to help society decide how to manage its resources.

But, lest the heightened financial value of land near wilderness skew the public’s thinking, the economist quickly turns naturalist.

“The reason for creating new wilderness areas in the Green Mountain National Forest is not to make somebody’s land more valuable, nor for developing business opportunities nearby, nor for the edification of ecosystem-related service providers like bottlers and breweries,” said Phillips. “The reason is that we need more wilderness.”

We also need to apply more beneficial and sustainable management practices to our forests. Increasingly, Vermont provides raw materials that are shaped, assembled and refined somewhere else. The benefits go primarily to international corporations that profit on both counts: American loggers get low wages because they are essentially performing the grunt work; and workers overseas who add

value to the raw materials by turning them into marketable goods are underpaid.

“These Vermont problems have a lot to do with globalization,” says VNRC Communications Director Patrick Berry. “VNRC strongly believes in a working landscape and wants to see the rural economy grow. But when you’re working at the bottom end of the pay scale the system propels you to cut more trees rather than getting more reward for the trees you cut.”

“The solution is not to undermine the integrity of the Vermont landscape, but to figure out how to get more money for the people who work in our forests. This should present an opportunity to bring people together. The goal is to manage our forests sustainably. Otherwise, you’re crippling the resource that in the long run will help you pay your bills.”

RURAL REWARDS

A “working landscape” need not always be a harvested landscape. As natural capital, it can remain wilderness, or a slightly tamed version thereof. And if a community desires to turn a profit from this resource, it only has to protect it.

And, perhaps, market it. Gray Stevens, who heads the Vermont Outdoor Guide Association (VOGA), has seen this work to a community’s advantage in several places. East Burke, for example, is the locus point for a 100-mile trail system, for hiking and biking, called Kingdom Trails, which was established in 1994 as a non-profit organization by what Stevens described as “visionary residents and business leaders.” Bit by bit they obtained access for the system on state, private and town-owned land.

“I remember when East Burke was just a place that you drove through,” said Stevens. “Now it’s a nice, small community with a major attraction. People from all over the world come to Kingdom Trails. The trails system has turned the town around.”

VOGA keeps tabs on who its customers are, and what they like to do in Vermont. According to VOGA, in 2000, 22 percent of visitors to Vermont participated in outdoor activities, with the biggest draws being wildlife watching, hiking, water recreation and fishing. Hunting, though not the draw for out-of-staters that it once was, still weighs in as the primary activity of 10 percent of those who came here to recreate.

On the whole, these visitors are relatively affluent (51 percent of outdoor recreation visitors had annual household incomes of \$50,000 or more, versus 44 percent of all other visitors), they stay in Vermont longer than other guests (average 8.1 nights a year, compared to 4.7 nights for others) – and they spend more money, averaging just under

“The solution is not to undermine the integrity of the Vermont landscape, but to figure out how to get more money for the people who work in our forests... Otherwise you’re crippling the resource that in the long run will help you pay your bills.”

— Pat Berry

\$1,000 per person during their stays. Furthermore, the beneficiaries are towns that are otherwise out of the economic mainstream.

"The rural communities do very well," Stevens says. "Outdoor guiding is a green industry. We don't need buildings and a lot of roads. Those things are actually negative for us. And the more people learn about the resources, the more interested they are in protecting them."

John Hall, outreach coordinator with the Vermont Department of Fish & Wildlife, says the contributions of people engaged in such activities as hunting and fishing are important in other ways as well.

"Those expenditures occur after the leaves are off, and before the skis come on. The fall and the early spring are times when not much else is going on. Hunting and fishing help to keep our economy (constant). Wildlife resources are very important to Vermonters economically. We need to value those resources and protect the habitats they require to be here."

BUSINESS BUYS IN

Stephen Holmes, director of VNRC's Sustainable Communities Program, recently spent part of a morning cruising the Internet, checking out the websites of Vermont's leading business-promotion organizations. His conclusion? They know where their bread is buttered. They now trumpet Vermont's environment and its environmental ethic.

"In my last 10 years or so at VNRC it seems to me that there has been, on the part of business interests, a heightened awareness of how important our natural resources are to the future of Vermont's business development," said Holmes.

As an example, he referred to the web page of the Vermont Business Roundtable, an organization of CEOs of most of the state's leading businesses.

"The very first page of the site says 'The Roundtable is committed to sustaining a sound economy and preserving Vermont's unique quality of life,'" he said. Holmes cited a survey, "The Pulse of Vermont," in which Vermonters were asked what "quality of life" meant to them; their top three answers were: a reasonable standard of living; a relaxed pace of life, and a clean and attractive physical environment. Preserving open land was also a priority. Holmes emphasized that these values were prominently presented on the face – its page on the worldwide web – that the Vermont Business Roundtable presents to the world.

Similarly, Vermont's official tourism and travel web site heralds the connection between the "working landscape" – farms and forests – and a state that is worth visiting for its beauty, recreational opportunities, and ambiance.

"To see the state tying Vermont's economic well-being to our landscape and natural resources is significant," said Holmes. "It's significant, also, that interest and membership are growing in Vermont Businesses for Social Responsibility, whose mission statement emphasizes its commitment to environmental protection."

It would seem, then, that everyone has joined the cause. Surely that is not true, and surely there are degrees of conversion.

But with other sectors of Vermont's economy staggering at times, the land, water and forests are a constant. They are our inherited natural capital, giving solace to Vermonters and visitors both. If harmony with our natural world is not impetus enough to see that they are protected, it doesn't hurt that they help us turn a buck. Like any form of capital, however, natural capital is best used when it is saved. ●



Lye Brook Wilderness Area





'Not Open For Business'

VERMONT FAILS TO GRASP THE PROMISE OF RENEWABLE ENERGY

BY WILL LINDNER

Business is booming for a number of Vermont-based companies plying the renewable-energy trade. NRG Systems of Hinesburg, for example, has a corner on wind measurement, an early and vital step for customers siting large wind-power installations.

"We make equipment such as sensors, data-logging instruments and software to measure the wind and analyze the site's potential," says NRG President David Blittersdorf. "You run our equipment for a year or six months to perform power projections and evaluate what a wind farm would produce. We're the leading company that does this, with probably 40-to-50 percent of the world market. It's a nice little niche."

Across the Green Mountain range from NRG's operations, another green, global player is at work. Northern Power Systems, in Waitsfield, designs and builds alternative energy systems that generate electricity for some of the remotest outposts on Earth, including seismic measuring stations in Alaska and Antarctica that monitor compliance with the Comprehensive Nuclear Test Ban Treaty.

In fact, one Northern Power Systems invention might someday leave the Earth. The company's North Wind 100/20 cold weather wind turbine, designed for potential use as a power source on Mars, won the prestigious R&D 100 Award in 2000. NPS has tripled its workforce over the past five years (it now employs 89 people), and company president Clint "Jito" Coleman was recently named Vermont's Small Business Person of the Year.

In the 1970s, Coleman explains, "I became concerned about the (fallacy of the) nuclear industry as an answer to the world's energy needs . . . but I realized we couldn't change directions unless we had viable alternatives. Renewable energy became the viable alternative."

Solar Works Inc. in Montpelier – founded 22 years ago when VPIRG energy specialist Leigh Seddon left the advocacy organization to put his faith in solar power to work in the marketplace – is active throughout the Northeast and abroad. In 1995, Solar Works began working with black South Africans newly liberated from apartheid, training teachers and technicians in photovoltaic (PV) technologies to bring power to their rural communities. The company is active in New York State, where an aggressive campaign of publicly sponsored

economic incentives promotes the use of renewable energy.

"Our little company will sell more than \$1 million in solar systems in New York this year," Seddon predicts.

That these three companies and others like them are based in Vermont is no accident.

Environmentally attuned Vermont activists grasped the economic and cultural implications of the 1970s oil embargo and were inspired to find solutions in solar, wind and other renewable technologies.

Yet these companies are also survivors.

"I'd say 95 percent of the renewable-energy businesses that started in the '80s are gone," says Seddon (a former VNRC board member). "A big reason was Ronald Reagan rescinding federal tax credits for renewables in 1985."

They have found their niches, however, in Denmark, Germany, Spain and other countries determined to rid themselves of nuclear energy, and in states like California, New Jersey and Massachusetts that promote solar and wind technologies to protect their citizens from the economic madness of the U.S. energy market.

But as for actually working in Vermont... Well, that's a different matter.

Blittersdorf estimates that NRG Systems does 40 percent of its business in the U.S. (the rest, overseas). So what portion of that is in Vermont?

He laughs. "About point-zero-zero-one percent."

"In Vermont," he explains, "we talk about being a green state, but we're in Disneyland if we think we are. We import 90 percent of our energy. All the oil and gas we get is from out-of-state and out of the country. I'm disappointed in our political leadership. We have a long ways to go."

Northern Power Systems dabbles in the state (it designed a co-generation system for Green Mountain Coffee Roasters in Waterbury, which produces electricity on-site and captures the heat byproduct for use in the plant). Mainly, though, NPS looks farther afield for its work. Compared to other parts of the world, "the U.S. is just out-to-lunch on (investment in renewable energy)," Coleman recently told a gathering of Washington Electric Cooperative members in East Montpelier.

Solar Works now derives just 5 percent of its income from its home state, Seddon estimates. Vermont's small population and territory, its

accessible democratic traditions, conservation ethic, "and the fact that we have some of the best environmental thinkers in the world up here," would seem to dictate otherwise.

Largely deprived of income-producing ventures locally, Solar Works is active in school-based programs that foster enthusiasm for solar power. After all, children are likely to live most of their lives in a world powered by renewable energy.

"Shell expects not to be an oil company by 2030," Seddon says. "By 2050, solar and other renewables will be providing the world's energy. There's not a single long-range energy report that contradicts that."

Beth Sachs of the Vermont Energy Investment Corp. — which leverages financial support so people can afford energy-efficient technologies in homes, businesses and other settings — concurs.

"The most liberal and conservative views of when we're going to run out of fossil fuels aren't that far apart," says Sachs. "What energy efficiency is going to do is to help us build a bridge to renewables."



Cabot School solar panels

Why Vermont's political, economic and business leaders seem uninterested in what lies beyond that bridge baffles Leigh Seddon.

"We know how committed Vermonters are to renewable energy," he says, noting that our state has perhaps the highest per-capita number of solar installations in the country — functioning remnants of the flourish of activity

before Reagan rescinded renewable-energy tax credits in 1985. "And we know (how well) the industry could do here. Clean energy funds are totally an economic-development engine. The fact that nobody in the Legislature has the foresight to capitalize on that drives me wild."

ON THE BRIGHT SIDE

The state may be policy-challenged, but there is no dearth of the natural resources requisite for green, renewable power. Even in "cloudy old Vermont," Seddon says, there is sufficient sunshine for grid-connected businesses and homeowners to benefit significantly from Vermont's 1998 net-metering law. One of Vermont's rare policy successes, net metering permits people who generate their own electricity to discharge excess power into the local utility lines. Their meters actually do run backwards. They are credited for that electricity,



"Shell expects not to be an oil company by 2030," Seddon says. "By 2050, solar and other renewables will be providing the world's energy. There's not a single long-range energy report that contradicts that."

— Leigh Seddon



Some call Vermont "the Kuwait of New England" for its wind-power potential... because the continental weather patterns that bring us acid rain also bring us acid rain's vehicle: prevailing west-east wind currents.



Wrightsville reservoir

and billed only for the "net" power they use from the utility.

On good summer days, and even on bright winter days, a homeowner can generate enough juice to forsake utility power for hours and build up credits to offset a portion of his or her yearly electric bill. Solar energy systems remain expensive, even though prices are coming down, but the law waives the 5-percent sales tax on equipment for net-metering projects. This year the Legislature extended that exemption to solar hot water systems and off-grid installations for people who want to generate all of their power.

Perhaps most surprising is the potential for wind power in the Green Mountain State – a state that some call "the Kuwait of New England" for its wind-power potential. This is because the continental weather patterns that bring us acid rain also bring us acid rain's vehicle: prevailing west-east wind currents.

"Wind is one of our biggest natural resources," says Blittersdorf, whose company tests its measurement devices at Vermont locations. "We have a raw potential of 6,000 to 7,000 megawatts of wind. The state's average electricity load is 650 to 700 megawatts, so potentially we have 10 times enough wind to meet our average energy needs."

But we have only one wind farm – Green Mountain Power Corporation's Searsburg installa-

tion, where 11 turbines generate six megawatts (MW) of electricity, roughly equivalent to the power needs of 2,000 homes.

Things may change. Burlington Electric Department has wind power on its radar screen, an idea made economically feasible when it sold its minority ownership position in Vermont Yankee in February and terminated its power contract with the nuclear plant. Patty Richards, director of resource planning at BED, said in June that the municipally owned company was "at the edge of committing to (a long-term arrangement for) wind." She declined to divulge details about the project, except to say that the facility would be located somewhere in Vermont and that the first phase of construction would include seven large turbines generating 9 MW of power.

In central Vermont, Washington Electric Cooperative, which serves 9,000 rural connections in 41 towns, is in the early planning stages for wind power, too, facilitated by a \$1 million federal grant obtained with the assistance of U.S. Rep. Bernard Sanders. Avram Patt, general manager of the consumer-owned utility, says, "We will probably do our project in conjunction with some other wind-power developer. Our needs are smaller than what an economically designed project would produce, so we're not going to develop this alone – which also means there will be more renewable energy

available for other Vermonters.”

WEC parted ways with Vermont Yankee at the same time as BED, and replaced that nuclear power with electricity generated from methane gas at a landfill in Connecticut. Contrary to popular assumptions about the economic sacrifice of going green, WEC is saving money with its three-year methane contract – an estimated savings, compared to Vermont Yankee prices, of at least \$330,000 in 2002, which should continue through 2004. And WEC can brag that it is consuming waste (through the biological degeneration process at the landfill) rather than producing radioactive fuel rods.

WEC and BED are also setting high national standards for electric utilities by boosting the green portion of their power “portfolios” – portions that will grow further when their wind-energy plans materialize. WEC leads the way with a perhaps-unequaled 40 percent of its purchased power coming from renewable sources. (GMP refers to its portfolio as 41-percent renewable, but a significant portion of that power comes from Hydro Quebec, which is not classified as “green” because of the environmental degradation wrought by its vast hydro development.)

BED’s mix is 30-percent green, owing to its McNeil woodchip generating facility. And therein lies Vermont’s verifiable claim to national leadership: biomass incineration for both energy production and energy efficiency.

“In terms of using wood for energy in community applications, Vermont is unquestionably the national leader,” says Tim Maker, director of the Biomass Energy Resource Center in Montpelier. “Over 15 years we’ve demonstrated that the technology is there, that it’s not a nuisance to operate, that it’s economical and it keeps resources and money at home.”

There are just two woodchip electric-generation stations in Vermont, but 25 schools now heat with modern woodchip incinerators. On average, those schools have reduced their heating costs by 75-80 percent, according to Maker.

The technology has the additional advantages of contributing to sustainable forestry by removing low-grade, junk wood, and providing a network of interrelated jobs – reasons that the U.S. Forest Service sends contingents from western states, where communities live under constant threat of forest fire, to see how the system works in Vermont.

“A whole infrastructure (has developed) around woodchip technology,” says Maker. “It’s a good economy, and it displaces fossil fuels that would otherwise be used for electric generation or heating plants. Very few of those fossil-fuel dollars stay in the local economy.”

However, Maker concedes, “We don’t claim

that wood is the cleanest form of renewable energy. We’re working hard to develop technology that will bring emissions close to those of natural gas, which is the cleanest-burning fossil fuel. At Union-32 High School (outside Montpelier) particulate emissions from the furnace are 18 times better than a modern residential wood stove.”

‘OUT TO LUNCH’

Resources, then, are not Vermont’s problem. Nor is the entrepreneurial spirit wanting. Proponents, therefore, see a crucial role for the public sector to stimulate renewable-energy development. In 2001 Gov. Howard Dean unveiled a comprehensive energy plan, but its greatest inroads have been in the realm of energy efficiency. Few would fault that, but Andy Perchlik, director of the group Renewable Energy Vermont (REV), says, “This state has failed to create major initiatives to encourage, promote and recruit renewable energy companies and make it a focus of economic development. That’s what we’re pushing.”

Perchlik suggests installing solar panels on more state buildings, and points out that the new interstate rest areas under construction will not use renewable energy. “They could be demonstration sites,” he complains. The state prison being built in Springfield will incorporate some excellent efficiency measures, but no renewable energy – another missed opportunity. The most responsive state agency, Perchlik says, is the Department of Forest & Parks, which uses solar technology at several campgrounds.

On the whole, Perchlik sees state leadership as shortsighted. “Business interests have pounded it into their heads that the cost of electricity is Vermont’s number-one problem,” and that renewables would exacerbate that situation.

Advocates say that a heavy commitment of public resources would be nice – “After all, we’ve subsidized the nuclear, fossil fuel and large-scale hydro-electric to the tune of trillions of dollars,” says VNRC Communications Director Patrick Berry – but they have not asked for that. Instead, they pinned their hopes this year on a bill in the state Senate that would have provided \$750,000 of oil overcharge money – derived from a federal legal settlement with the petroleum industry – for a program of incentives for grid-connected home energy systems.

“That \$750,000 was not a lot of money,” says Scudder Parker of the Department of Public Service, who helped design and recruit support for the bill, “but we believe it could have stimulated \$2 million to \$3 million of activity.”

After a promising debut in the Democrat-controlled Senate, it floundered in the Republican-led House (see “Death Of A Good Bill,” this issue).



“This state has failed to create major initiatives to encourage, promote and recruit renewable energy companies and make it a focus of economic development.”

— Andy Perchlik



"The legislators have to take their share of (the responsibility) for missing an opportunity," said a bitterly disappointed Rick Pollack, owner of Green Mountain Wind Power in Charlotte. "They made a political issue out of something that was a jobs issue."

'I CAN SEE FOR MILES AND MILES....'

The lack of potent economic support for renewables is not the only obstacle facing entrepreneurs like Pollack – or folks who just want to put up their own wind turbines because, in their view, it's the right thing to do. "Their view" itself can be an almost insurmountable problem.

Vermont practically invented "aesthetics" as an environmental resource worthy of conservation. But now the conservation community is in danger of being hoist on its own petard. A growing aesthetics debate threatens to split the community, as trails organizations and property owners enamored of natural, unspoiled views (supporters, very likely, of conservation groups) object to wind-turbine proposals and are labeled "NIMBYs" by proponents.

Every homeowner who wants to install a net-metered renewable-energy system must obtain a Certificate of Public Good (CPG) from the state Public Service Board (PSB). This is consistent with the board's oversight of electric utilities and the "quality" of our electric power, since net metering installations send home-generated juice into the wires that serve local consumers. Act 248 (think of it as a utility version of Act 250) similarly seeks to uphold "aesthetics" standards, and like Act 250 it invites input from abutting property owners and other parties.

"It takes just one person to object, and it stops everything completely," says Pollack, who went to the PSB for a certificate for a wind turbine on his own land. "People move up to Vermont and they don't want anything to change. The PSB is playing right into that.

"The state needs to take a position on aesthetics," he continues. "There aren't aesthetic criteria for all these new homes that are going up all over the place."

Pollack eventually got his CPG. Tom Halnon, of East Middlebury, was denied.

In June 2000, Halnon submitted his application to erect a 10-kilowatt wind turbine on his 62-acre property. Wishing to stay connected to the grid, he needed a CPG.

"It's the Holy Grail," he explains. "With net metering you don't need to buy a bank of batteries to store power because you're using the grid. And you can buy 120-watt appliances like everybody else."

But some of his neighbors were not enthused, and launched an array of objections that basically

came down to their concern over the turbine's visual impact. Halnon says their charges were inaccurate and should not have been accepted by the board. But the PSB denied him a permit, using language – "shocking and offensive" – derived from the 1985 Quechee Decision, which guides Act 250 determinations of aesthetic impact.

Halnon was shocked and offended himself, and appealed the decision to the Vermont Supreme Court (no ruling has yet been issued).

He also did something else: He applied to the Middlebury Zoning Board for permission to erect his turbine and won a local permit for the project. The turbine has been up since May 17.

"It's there, a permanent part of the landscape, and it's going to stay there," he says. "You can't see it from any of the points from where (the PSB) said it's going to ruin the view."

But without a Certificate of Public Good, Halnon's wind turbine is not grid-connected. For him, that means several cost duplications – two water heaters, two well pumps, lots of extra wiring. For Vermont as a whole, advocates point out, cases like Halnon's represent lost opportunities.

"Our public policy should be to encourage grid connection," says Solar Works' Leigh Seddon, "which feeds clean energy back into the system and reduces the use of fossil fuels and nuclear power. Net metering makes the grid itself a good thing – composed more of clean and locally produced energy."

Peter Meyer, a hearing officer with the PSB, contends that most net-metering systems are quickly approved. In early June the board issued its 62nd net-metering CPG. Most were solar projects, but Meyer estimates that 14 or 15 were wind turbines. The board holds public hearings only when opposition arises to a project. Meyer says that has happened with just four wind-turbine applications. Halnon's is the only one of those four to be denied.

A WORKING LANDSCAPE

Because that case is before the Supreme Court on appeal, Meyer declines to discuss it. But he explains that the PSB must take the words "public good" in "Certificate of Public Good" seriously. "The question before the board is whether the benefits (to the community) of receiving the net-metered power are enough to outweigh any adverse local aesthetic impacts. It boils down to the board's perception of public good."

That analysis has broader implications for the state's wind-energy future. While Meyer reiterates that all but one small-scale wind installation have been permitted, the edge probably belongs to utility-scale projects. They may be visually more intrusive, including scores of towers nearly 200 feet tall and occupying ridgelines, not discrete valley



The windmill of opposition on Tom Hanlon's property.

"viewsheds." But they will provide a greater public good.

"The board (would) look at the same issues in both small-scale and utility-scale (proposals)," says Meyer, "but it has got to keep that perspective in mind."

Green Mountain Power's campaign to site its Searsburg wind farm provided clues for such a project's success. Good sites are high enough to capture the wind resource but do not present themselves on prominent ridge lines; they are reasonably near electric transmission lines, and ideally can be accessed by an existing road. They need not be invisible.

The DPS and Renewable Energy Vermont saw these issues looming, and with the aid of a \$45,000 grant from the U.S. Department of Energy have been convening government administrators, utility representatives, wind-power developers, renewable-energy advocates, representatives of trails associations and regional planning commissions in an effort to build consensus on the kind of complex issues that could torpedo a wind-power proposal. One product of the effort could be a manual for helping communities reckon with the prospect of wind-turbine projects, small and large.

"We've talked about aesthetics, endangered species, wildlife, avian mortality (birds killed by turbine blades), the economic viability of sites," says Parker, of the DPS.

A public-education component is a must.

"People need a way of being prepared to deal with proposals, which must come forward in a logical and good-faith way," says Avram Patt of Washington Electric Cooperative. "We've had an example of the opposite experience with cell towers, where suddenly a bunch of companies started saying 'We want to put one here and we want one there.'"

"Obviously, aesthetics is in the eye of the beholder," says Patt, "but experience indicates that when people understand and think about what these towers and turbines are doing (harnessing wind energy, displacing fossil fuels), it influences their reactions. Many people think they are quite beautiful and graceful."

Ideally, Leigh Seddon believes, the discussion of renewable energy in Vermont's future will lead us, as a state, to redefine the concept of a working landscape. We know the economic, cultural and spiritual value of a working landscape in the agricultural sense – paying homage to spring's cultivated croplands and summer's green pastures. Today we have opportunities in energy and telecommunications that can make our state more self-reliant, independent and prosperous. But they involve new uses for the landscape, and new limits to those uses. We have decisions to make.

"Vermont should have a well-thought-out public infrastructure," Seddon says. "We can have that debate, but we need to do it the right way." 🍄



Today we have opportunities in energy and telecommunications that can make our state more self-reliant, independent and prosperous. But they involve new uses for the landscape, and new limits to those uses. We have decisions to make.



THE DEATH OF A GOOD ENERGY BILL

BY WILL LINDNER

“Shame on Vermont for missing this opportunity. Vermont can’t afford to put all of its economic eggs in one basket.”

— Elizabeth Courtney

As the 2002 session of the Vermont Legislature convened in January, VNRC and other renewable energy believers had their hopes pinned on S.264.

The bill, titled “An Act Relating To Promotion of Energy Efficiency and Renewable Electric Generation,” would not make Vermont another Massachusetts, where a tax of two-tenths of a cent per kilowatt hour on electric ratepayers nets \$40 million annually to promote renewable energy; nor a California, where consumers receive 50-percent rebates on the cost of wind and solar equipment.

But it contained, in small degrees, most of the provisions that supporters believe would help launch a vigorous renewable-energy industry in this state, creating a spectrum of new jobs, increasing Vermont’s energy independence and in the long run reducing consumers’ energy bills – and mitigating environmental degradation caused by fossil-fuel and nuclear energy production. The bill would have:

- authorized “green pricing,” in which electric utilities provide customers a voluntary opportunity to pay a premium, on top of their monthly charges, to support renewable-energy projects. (Under green pricing, customers rarely receive the actual electrons produced by such wind, solar, methane or biomass projects, but they have the satisfaction of knowing they are strengthening the renewable-energy industry and adding “green” power to the grid. Green pricing also provides a market for showing demand for renewables);
- authorized the state to devise alternative systems of utility regulation that would reward utilities for diminishing their energy sales (counterintuitive for any industry) through efficiencies and renewable technologies;
- instituted Renewable Portfolio Standards (RPS), requiring utilities to include in their power portfolios (the mix of sources of their wholesale energy) certain minimum percentages of green power; (the bill specified only small demands, in the range of 1 to 4 percent of the companies’ purchased power);
- introduced group net metering; Vermont’s 1998 net-metering law allows individuals to generate their own power – using Public Service Board-approved installations – and send whatever sur-

plus electricity they might produce back through their electric meter into the utility’s wires; S.264 would have expanded that opportunity to groups of consumers;

- provided incentives for people to purchase renewable-energy systems through a pilot program devised by the Department of Public Service (DPS); funded not by taxpayers but by \$750,000 of federal oil-overcharge money, a program of rebates, tax credits or other inducements which would leverage \$2 million to \$3 million in business activity for Vermont companies;
- expanded the sales tax exemption for renewable-energy equipment to include solar hot-water systems (which are not connected to people’s electric meters and therefore do not figure into net-metering) and off-grid installations; presently the exemption applies only to net-metering projects.

Proponents were elated when the Senate passed S.264 by a vote of 27-1. But trouble arose as soon as it hit the House Commerce Committee. The first thing to go was Renewable Portfolio Standards (RPS) for utilities, which was really the only provision that had “teeth” – that is, a requirement, of anyone, to move toward green energy. And that requirement, in gradual installments over three years, reached only to 4 percent.

The legislators’ concern was Vermont’s business climate.

“Our research determined that even if you went up to 4 percent (RPS) by 2009, the impact would be less than 1 percent (in rate hikes),” said Scudder Parker of the DPS. But considering erratic fossil-fuel pricing – particularly natural gas, which is gaining market share in New England – long-term electric rates are hard to predict. And, says Andy Perchlik of Renewable Energy Vermont (REV), “One percent is a small price to pay as an insurance policy against (dependence on) Middle Eastern oil.”

No matter. Portfolio standards were gone.

Next on the chopping block was the \$750,000, derived from the oil-overcharge, for green-energy incentives for consumers. The House wished to spend it elsewhere; the Senate refused. The end result was that no one got it – least of all

Vermonters interested in going renewable, and the companies who would have profited from their business.

"I don't believe I even have a business after this," said a despondent Rick Pollack of Green Mountain Wind Power in Charlotte.

Leigh Seddon, of Solar Works Inc. in Montpelier, said, "I sympathize with Rick. We have sold zero systems in Vermont during this period because people were waiting for the tax credit or rebate to come into effect."

In the final weeks of the session, what was left of S.264 got tossed around between the House Appropriations and Commerce committees, but its fate was sealed. If there was any life left in the bill at all, that was extinguished when representatives of IBM objected to the – entirely voluntary – green pricing provision. Green Mountain Power already offers a "green tag," which its customers can get by paying a premium to support renewable energy, almost like a donation to the cause. But IBM and other business advocates objected to raising the profile of that opportunity by wrapping it into state policy. With rumors circulating that IBM was planning to eliminate jobs in Vermont, which it did a week later, IBM's community-relations officer told the House members that green pricing would put pressure on the company to buy more expensive electricity.

"We're reluctant, in this economic climate," said House Speaker Walter Freed (R-Dorset), "to do anything that would strain IBM's situation."

Environmentalists were stunned.

"Prior to this moment, IBM had not even been participating in the discussion," said VNRC Communications Director Patrick Berry. "With renewable portfolio standards already out of the picture, there was nothing left in the bill that was onerous to them at all. They made the roundabout argument that if green pricing became available, and if IBM opted not to participate, it would look bad for them publicly. Their argument was devoid of relevance to the bill."

S.264 was dead. But the House rescued two remaining provisions by attaching them to an energy labeling law (calling on utilities to provide general information to consumers about their sources of power). Group net metering survived by becoming farm net metering, applying principally to methane electric-generation systems. And broadening the sales tax exemption on equipment for net-metering installations to apply to solar hot-water and off-grid renewable energy systems now is law.

While those provisions represent a little forward progress for renewable energy in Vermont, they are the ashes of a once-promising effort from a network so broad as to include Lt. Gov. Douglas Racine and Rick Pollack, struggling to stay in the

wind-energy business in Charlotte.

POST-MORTEM

"Shame on Vermont for missing this opportunity," said VNRC Executive Director Elizabeth Courtney. The important lesson to draw, Courtney added, was that "Vermont can't afford to put all of its economic eggs in one major basket."

Courtney was using the word "afford" literally.

"We need to build a new economy that is based on the natural and human resources that exist in this state," she said.

Those resources include abundant wind, adequate sunshine, ingenuity and expertise in new energy technologies, a population eager to embrace greater energy self-sufficiency, and a trainable and flexible workforce. Unfortunately, when IBM, worried about the future of its own industry, launched its strike against the Senate bill, it handicapped a budding new industry that could take up some of the slack left from Big Blue's layoffs.

So what now?

"We'll try to get some farm methane systems done," said Parker of the DPS. "That's what we've got to work with. Basically, we have educated some of the state's decision-makers, and worked with communities who have increasingly come to see renewable energy as a way to reduce costs. This was really good grass-roots work."

Pat Berry of VNRC agreed that the dialogue about renewable energy was constructive. But time, and money, are slipping away.

"Politics was the death of a really good energy bill, which should have been seen as a job-creation bill that happened to benefit the environment," said Berry. "At a maximum, we were talking about electric rates going up 1 percent; if every Vermonter changed one light bulb to an energy-efficient bulb it would neutralize that increase. We export \$1 billion a year for energy and out-of-state power purchases. Imagine keeping that money in Vermont."

Like everyone who had worked for S.264, REV's Andy Perchlik called its fate "a disappointment." What was missing, he said, was a true champion of the bill among House members.

"But it took the bottle bill six years to get passed," he reasoned. "So the Chamber of Commerce has decided they're not going to allow any bill with any chance of raising electric rates. Well then, maybe they'd support tax credits to fund renewables."

"There are a lot of positive things to look at, and that's the only way we're going to move forward. There will be some kind of renewable-energy bill for the next session. It's too early to know what that will be, but we're definitely going to bring them a bill." ●



"We export \$1 billion a year for energy and out-of-state power purchases. Imagine keeping that money in Vermont."

— Pat Berry

TRASH, TRUCKS, AND COMMUNITY PRESERVATION

BY SALLY DODGE MOLE AND DALE GULDBRANDSEN

In February of 1999 we were informed that Casella Waste Management was planning to build a new access road from the Sunderland/Manchester Transfer Station, cutting through a wooded hillside and a farm field to Route 7A in front of our property. Our reaction as adjoining property owners was, "Do we want this in our neighborhood?"

Casella Waste Management applied for Act 250 and Manchester Zoning permits to move the transfer station access road from Manchester's River Road to state Route 7A. At the local hearings, the town planned to give Casella a zoning variance to change the use of land in our neighborhood from rural residential and farming to industrial. Also, Casella was applying to increase the amount of trash they processed from 19,600 tons per year (already well exceeding the town limit of 5,600 tons) to 45,000 tons.

Our question was why would our neighborhood, which had been protected by town zoning laws, now be fair game for the building of an industrial road carrying as many as thirty 80,000 pound trucks a day as well as up to 70 other heavy trucks? Why is the town ruling in favor of Casella's business plan rather than for the quality of life of local residents? Must our town make a choice between economic development and environmental protection?

The Sunderland/Manchester Transfer Station has been located on the towns' common line for about a hundred years. Like many town dumps, people brought their trash there in cars and pick-ups. Casella bought the property in the early 90s, capped off the landfill, and built a recycling facility and indoor transfer station.

At the same time, they bought out most of the local trash haulers,



creating a monopoly and a centralized waste management facility for southern Vermont. The garbage was deposited in our transfer station, and then hauled to Fort Edward or Plattsburgh, New York. The size and number of heavy trucks to and from the transfer station increased dramatically.

At present, access to the transfer station is on River Road, a scenic town-maintained road along the Battenkill River, built for vehicles under 15 tons. In 1998, residents of River Road complained to the Act 250 Board that the Casella trucks were too heavy for the weight restrictions of their road, and were causing excessive noise and vibration. The Act 250 Board mandated that Casella find an alternative to the present road. Casella bought a 32-acre property between the transfer station and Route 7A, and applied for the permits to build a new access road out to the state road, which is approved for the tonnage they were hauling. The proposed access



Garbage truck route through Manchester Village.

road would bring the trucks through the center of Manchester Village, which is lined with inns and historic houses. Concerned residents of Manchester Village, Manchester, Arlington, and Dorset formed a grassroots organization called the Coalition for Alternatives to Trucks Through our Towns (CATT) and raised money to hire a lawyer. So far we have spent over \$75,000, and

now we face the prospect of having to appeal to the Vermont Supreme Court.

Our scenario is of particular interest in Vermont because citizens are so often forced into conflict between economic development (read "jobs" or "commerce") and the environment (read "quality of life" or "preservation of community/environment"). All of the parties have spent huge sums of money to protect their positions. The argument is based on a way of thinking which views the economy and the environment as mutually exclusive interests.

Many businesses rarely look for solutions to economic expansions that also take the environment and quality of life of citizens into consideration. Towns may have strict zoning laws, but these can be bent for "economic good". Those of us living along Route 7A and the people who live near the present Casella truck route on River Road are paying heavily for Casella's business profits. Our opponents tell us that the trash service must be provided. We think the cost to local citizens to centralize trash processing is too high a price to pay.

There are many alternatives to what Casella has proposed, but they are reluctant to consider them because of their costs. A number of regional transfer stations would spread the truck traffic out. Hauling the recyclables by rail would reduce truck trips. Why must residents on the back roads now have weekly

service from large packer trucks, rather than taking their own trash to the transfer station? If we take into consideration the potential loss of business for the inns and hotels along the truck route, the decrease in real estate values of our homes, and the loss of quiet enjoyment of our now-rural neighborhood, there is a great deal of cost that Casella and the Town of Manchester haven't recognized.

The many questions generated by our case have led us to conclude:

- The general public assumption is that the economy and the environment are not compatible. People can change this way of thinking, and there are numerous models we can look at in which the protection of the environment is working very well for the economy. Casella's expansion plan is not good for the tourist economy in Manchester or for our local property values.
- Federal and state laws favor business over people's quality of life. This must

change if Vermont is to establish a healthy balance between economic and environmental/community issues.

- The public is generally disengaged from the process that could change the status quo in terms of what is good for the environment and what is good for the economy. The decision-making is left up to corporations and government, hoping they will do what is in the public's best interest.

The environment and the economy, especially in Vermont, are inextricably intertwined. Favoring business at the expense of the environment is killing the goose that laid the golden egg. The excessive amount of time and money spent on this case could have been prevented with up front collaborative planning among all the stakeholders. This will require a shift in thinking about the environment and the economy from either/or to both/and. It also calls for greater citizen participation in the governance of our communities. Vermont's natural environment is the basis for our economy and our way of life. ♻️

Sally Dodge Mole and Dale Guldbrandsen, CATT Co-Founders, can be reached at:

355 Lathrop Lane
Arlington, Vermont 05250
dale@sover.net

THE SAND BAR INN

Lakefront Dining & Lodging
Marina • Dockage • Rentals
Special Event Catering

Dining Nightly 5pm - 9 pm
Saloon 4pm - Close

59 U.S. ROUTE 2 • SOUTH HERO, VERMONT
802 / 372 6911 • www.sandbarinn.com

GREENSBORO GARAGE



Quality Sales and Service
for Over 20 Years

www.greensborogarage.com

Main Street
Greensboro, VT 05841
533-2221 533-7110

Route 15
Hardwick, VT 05843
472-6555

"Imported Cars Are Not Foreign To Us"

Hunger Mountain COOP

623 Stone-Fitter's Way • Montpelier, Vermont
(802) 223-8000

**Natural and Organic Foods
Fresh Meats and Fish
Natural Health & Beauty Aids
Deli Cafe' Featuring:
Prepared Dishes and Daily Buffet**

*Over 300 Local Vendors
Supply Our Store!*

**Open Daily 8 - 8
Everyone Welcome!**

TAKE ACTION!



As VNRC staff travels around Vermont talking about important environmental issues we often hear, "Wow! I didn't know about that." Modern life barrages us with nonstop information all day long – some useful and some useless. Somehow in the midst of all this information the basic needs that we survive on – clean air, drinkable water, safe soils and more – are often forgotten. Letters sent to the editors of local papers and magazines are great ways to inform your neighbors about the issues that you care about. The Letters to the Editor's page in the newspaper is one of the most democratic forms of communication available since it allows an endless variety of thoughts, ideas and opinions to be shared in open forums. And considering the Letters to the Editor's page is one of the most read sections of the newspaper, you have the potential to reach many people.

VNRC often depends on Letters to the Editor to show support for our issues. For example, during this past year's West Mountain Wildlife Management Area debate, hundreds of letters supporting the reserve were published in local papers. While original media stories made it seem as if most Vermonters did not support setting aside lands for their ecological values, continual pressure from the reserve's supporters showed that this was in fact not the case. The vocal support of these letter writers encouraged many legislators to fight harder to support the reserve.

Here are some rules of thumb that you can use when writing your Letters to the Editor. Perhaps you can practice by taking an issue from this *VER* and write about it in a letter to your local paper.

LETTER TO THE EDITOR

RULES OF THUMB

- Keep it short and simple. Most papers have a 250 word limit. It's hard writing so few words, but the shorter the

message the more likely the reader will remember it.

- Write a great title. They may not use it, but it will catch their attention.
- Stay on message and do not follow tangents. It's a good idea to focus on one main point.
- Offer solutions. Ranting and raving on paper is great fun, but not very publishable.
- Be smart about your timing. This means both planning ahead and tying it to specific upcoming events, dates, or votes.
- Always, always, always check your work for ALL errors – factual, spelling and grammatical.
- Email preferred. Not only is email easier for many people, but it's easier for the editors since they can simply cut and paste your letter into the next day's paper.
- Send it to more than one paper. If you are using email this is especially easy.
- Include your name, town and phone number. Without your name and number the paper can't confirm you sent the letter and won't publish it.

THINGS TO ASK YOURSELF BEFORE YOU GET STARTED...

- Why are you writing this?
- Who are you trying to convince?
- Who are your foes and friends?
- What is your message?
- What are your target publications?

WHO TO WRITE TO:

Addison Independent
news@addisonindependent.com

Addison Eagle
eaglepub@together.net

Barton Chronicle
bartnews@sover.net

Bellows Falls Town Crier
tcrier@sover.net

Bennington Banner
news@benningtonbanner.com

Brattleboro Reformer
reformer@sover.net

Burlington Free Press
letters@bfp.burlingtonfreepress.com

Caledonian-Record
news@caledonianrecord.com

Colchester Chronicle
ccpage@worldnet.att.net

Deerfield Valley News
editor@vermontmedia.com

Eagle Times (Springfield)
etimes@cyberportal.net

Hardwick Gazette
hdwkgazett@aol.com

Manchester Journal
manjourn@sover.net

Newport Daily Express
sullivan@together.net

News and Citizen (Morrisville)
edit@newsandcitizen.com

Rutland Herald
letters@rutlandherald.com

Rutland Tribune
ruttrib@vermontel.com

Saint Albans Messenger
samlink@together.net

Seven Days (Burlington)
pamela@sevendaysvt.com

Springfield Reporter
reporter@vermontel.net

Times Argus (Barre)
letters@timesargus.com

Valley News (White River Junction)
forum@vnews.com

Vermont News Guide (Manchester)
newsguid@sover.net

Vermont Times (Shelburne)
vtimes@bluemoo.net

The World (Barre)
editor@vt-world.net

NEED MORE HELP?

VNRC staff is always available to proofread your letters, offer suggestions or provide mail addresses for your letters. Please feel free to call us at 802-223-2328 or mburani@vnrc.org so we can help you out. 🐾



VNRC DESTINATION AWARD

TAKE A RIDE ON THE CLYDE

BY PETE LAND

Even if you're not from Essex, Orleans, or Caledonia counties, you probably have some predisposed notion of the area that has come to be known as Vermont's Northeast Kingdom. There is no stone wall or moat to defend it from the changes that creep through the rest of state, yet somehow the Kingdom manages to maintain a wildness that is both romantic and forbidding. Or is it only in our minds?

To those of us from less intriguing parts of Vermont, the legend of the Northeast Kingdom takes many forms. Until recently, I had never really seen the Northeast Kingdom with my own eyes, despite having been born and raised in Vermont. I feel somewhat ashamed of this. But, then again, we have ample opportunity to experience lakes, rivers, mountains, fields, and Holsteins in the rest of the state. And the Kingdom is pretty darned difficult to get to. There just never seemed to be an occasion for me to get up there – until now.

My sister recently relocated to Saint Johnsbury, the gateway to the Kingdom. By visiting her, I've been introduced to the pleasant hikes around Lake Willoughby and the fine Scottish Ale at Lyndonville's Trout River Brewery. But I received my formal introduction to the Kingdom's natural beauty when I paddled around the marshes of the Clyde River last week. If you are looking for a reason to make your way up to the Northeast Kingdom, I encourage you to try the Clyde.

Drive one and a half miles South of East Charleston on Route 105. You will see a bridge crossing the Clyde River and a left-hand turn called Ten Mile Square Road. There is a convenient boat launch at the bridge. Paddle your way South on the Clyde toward Island Pond and you

will immediately encounter one of Vermont's most extensive and impressive wetlands. In a canoe or kayak, you will be treated to a tranquil journey, as the convoluted channels through the marshes are essentially impossible to navigate in a



motorboat. You'll be heading South where the rivers flow North, but you won't even notice that you're paddling upstream. Most of the Clyde is as flat as a pond. You will wind your way around Doloff Mountain and take in the scenery, a mix of forests and dairy farms dotting the hillsides on either side of the river.

The marshes of the Clyde River contain many wetland community types, providing habitat for waterfowl and other species. Among the birds I saw on my recent trip were great blue herons, kingfishers, and the first loon I had ever seen in Vermont. Bald eagles visit annually to take advantage of the Clyde's abundance of fish. Fly fishermen can expect to catch trout and smallmouth bass, and the 1996 removal of the Newport #11 dam means that the Clyde's legendary salmon population is on the road to recovery. A virtual paradise for wildlife, the marshes of the Clyde River are also home to moose, mink, beavers, otters, coyotes, and a number of other species.

Our guide for the day, Jason Benoit, recalled seeing otters play on the frozen surface of the Clyde during winter. Benoit works for the Vermont Leadership Center (VLC), a nonprofit education facility located on Ten Square Mile Road just 1.4 miles from the boat launch. The local teenagers in the VLC's Kingdom Corps are helping to develop the Clyde River section of the

Northern Forest Canoe Trail, a 740-mile route stretching from Old Forge, New York to Fort Kent, Maine. No matter how ambitious your canoeing aspirations may be, you should complement your day on the Clyde with a visit to the VLC.

There you will find educational programs, opportunities for camping and renting canoes, and thirty kilometers of trails to explore. In the winter, those same trails are groomed and serve as one of the finest snowshoeing and cross-country skiing centers in Vermont.

Once you've done your paddling, fishing, hiking, or whatever else you find to do around the Clyde, you can head down Route 105 and enjoy a bite to eat in Island Pond, East Burke, or Lyndonville. Your exploration of the Kingdom has only just begun. There are many rumors circulating Vermont about the mysterious Northeast Kingdom. Visit the marshes of the Clyde River and you'll find at least one of them to be true – it is one of the most beautiful and wild places in the state. 🍄

For more information:

The Vermont Leadership Center

<http://www.vtlc.org/>
(802) 723-6551

The Northern Forest Canoe Trail

<http://www.northernforestcanoetrail.org/>
(802) 496-2285



CELEBRATE VNRC'S 40TH ANNIVERSARY!

The year 2003 marks VNRC's 40th Anniversary. We are planning a number of fun, exciting, informative events around the state and we hope you will join us! Founded in 1963 by farmers and foresters, VNRC has retained the founding principle of protecting and restoring Vermont's natural environment.

PLEASE send us your comments about VNRC. Whether you have been a member for 30 years or just recently joined, whether you are a huge supporter of our work or have some differences of opinions, we want to know! Let us know about issues we have worked on together in the past, or where you hope we will be of help in the future. Please feel free to share humorous stories, memories of events, or anything else.

We are in the midst of compiling an historic 'scrapbook', and we are planning to use these excerpts in the issue. Please e-mail comments to smueller@vnrc.org, or Stephanie Mueller, 9 Bailey Avenue, Montpelier, VT, 05602.

SPECIAL THANKS TO JOHN MCCONNELL!

VNRC was very lucky to have superstar volunteer John McConnell working with us this Legislative session. John, who quickly earned the nickname "Captain Energy", is a website designer from North Ferrisburgh. VNRC board member Dale Guldbrandsen met John at an energy conference in Burlington, and John then called VNRC to volunteer his services to help prevent global warming. Despite never having spent a day in the Statehouse, John soon became a relentless presence in the hallways of the Golden Dome speaking on behalf of renewable energy. John's friendly manners, positive attitude and big smile became a welcoming sight in both VNRC's offices and with the Representatives and Senators.

Visitors to the Statehouse will soon see that day after day people tend to see the same faces. Grassroots voices like John's go a long way.

If you are interested in



John McConnell

working on an issue or volunteering for VNRC, please give us a call!

MEET VNRC'S MOLLIE BEATTIE INTERNS

Pete Land joins VNRC for the summer as a Mollie Beattie Intern. Pete was born in Burlington, Vermont and grew up in nearby Shelburne. He attended Champlain Valley Union High School and spent several summers working at a friend's farm in Williston. After receiving his Bachelor's degree in Environmental Studies from Dartmouth College in 1999, Pete worked for the San Diego Zoo and Defenders of Wildlife and served as the Education Director at the Vince Shute Wildlife Sanctuary in Minnesota. Pete is helping VNRC to work with local interests in providing greater protection for Vermont's most important wetlands. His work at VNRC complements his Master's research at the Yale School of Forestry and Environmental Studies.



Pete Land



Megan Kean

MEET VNRC'S RED ARNOLD INTERN

Megan Kean grew up in Kansas City, Kansas and went to the University of Missouri for her Bachelor's degree in Anthropology. While in college, she brought big name speakers such as Winona LaDuke and Howard Zinn to the University of Missouri campus. She is currently attending Indiana University's School of Public and Environmental Affairs and is pursuing a Masters in Environmental Policy and Natural Resource Management.

In the past, Megan has worked for nonprofits such as the Sierra Club, Mid-Missouri Peaceworks, and United Students Against Sweatshops (USAS), most notably spearheading a major anti-sweatshop campaign and serving on the national governing board of USAS. Additionally, she has worked for such governmental entities as the Missouri Department of Natural Resources' Energy Division and in the office of a Representative at the Missouri Statehouse. While working at the Statehouse, Megan helped to write, lobby, and testify for a piece of anti-sweatshop legislation.

This summer, Megan is working on grassroots outreach by visiting over 15 cities and towns across Vermont and talking to Vermonters about environmental issues and about VNRC. Now that Megan has experienced life in Vermont, she hopes to move here in a few years with her partner, Chrysti, and their two wonderful cats.

2002 VERMONT WILDLIFE HABITAT FORUM: A DIALOGUE ON CONSERVATION

The Vermont Wildlife Habitat Forum is an effort to foster dialogue among people who care about protecting Vermont's wildlife. Among those who consider themselves 'conservationists', however, there is a diversity of perspectives on what Vermont needs to do to ensure long-term protection of its natural heritage. Recognizing the need for increased mutual understanding among these different interests, the Vermont Natural Resources Council and the National Wildlife Federation are organizing a series of events to exchange information and views on wildlife habitat issues.

The effort is kicking off with a public information event to be held Friday, October 4th at Vermont College in Montpelier. Authorities on wildlife management and related fields will discuss historic trends, present conditions, and future threats to Vermont's natural landscape. The event is being planned in cooperation with The Nature Conservancy, Vermont Coverts, Vermont Federation of Sportsmen's

Clubs, the Vermont Forest Products Association, the Ruffed Grouse Society, the Vermont Biodiversity Project, and the Agency of Natural Resources. A wide range of other organizations will be co-sponsoring and participating in the event.

BOB WOODWARD MEMORIAL GIFT

The Board of Trustees of the All Souls Church in West Brattleboro established a memorial fund for Robert Woodward to preserve his memory and to honor his commitment to the natural world. Donations to the fund have been turned over to the Vermont Natural Resources Council.

Bob Woodward was known for his dedication and passion for the environment. He practiced what he preached, walking everywhere, riding a bike whenever he could and using his car as seldom as possible. He did not collect things; he lived simply collecting friends instead.

VNRC would like to take this opportunity to thank everyone who donated to the Bob Woodward Memorial Fund. We especially want to thank Robert Treat, Vice President of the Board of the



Bob Treat presenting Elizabeth with the Bob Woodward Memorial donation.



Field trip participants checking out an old oak tree.

All Souls Church for his efforts. VNRC will put the donation towards the protection and restoration of Vermont's environment.

SUMMER AND FALL FUN!!!

Join VNRC for some fun in the outdoors! We are hosting a number of summer field trips to get people outside to check out what we together are working to protect. We expect you'll learn more about the VNRC's work, but the main goal is to have a great time!

Join one of Vermont's renowned photographers to get some tips on photograph-

ing your favorite species.

See the Green Mountains by air as you ride in a plane over existing and proposed Wilderness areas in Vermont.

Come hiking with VNRC staff and naturalists to discuss the importance of wilderness to individuals and wildlife species.

Paddle downstream as we discuss the history of the river and the steps which need to be taken to ensure restoration.

The summer and fall workshops are going through September. Check out the Calendar section on our website (www.vnrc.org) for dates and locations, or call VNRC's office manager Jimmy (223-2328) for more information!

The Art of Cheese Making



CABOT CHEDDAR

World's Best Cheddar
22nd Biennial World Championship Cheese Contest

At farmer-owned Cabot Creamery, we know a thing or two about award-winning performances. Over the years at Cabot, we've perfected the tradition of crafting natural cheddar and have won every major award for taste.

So taste Cabot Vermont Cheddar Cheese. We guarantee you'll enjoy the performance!

CABOT
Vermont
DAIRY FARMER OWNED SINCE 1919
www.cabotcheese.com

HEADS UP!



VNRC CAN ONLY CONTINUE TO PROTECT VERMONT WITH YOUR HELP — JOIN VNRC!

We have a \$20 introductory rate, with a regular membership of \$35. Besides helping the leading statewide environmental group preserve Vermont's valuable resources, your membership includes:

- Invitations to local events and meetings
- VNRC publications: two issues of the *Vermont Environmental Report* and two issues of the *Bulletin* annually.
- Access to environmental information and resources
- Opportunity to participate in writing letters to the editor, talking to legislators, testifying at public hearings

Name _____

Address _____

Town _____

State _____ Zip _____

Phone _____

For more information, call Deb Daniels at (802) 223-2328.

Call us at (802) 223-2328 in Montpelier or (802) 864-9600 in Burlington.

*Please return this form to: VNRC, 9 Bailey Avenue, Montpelier, VT 05602
E-mail: info@vnrc.org*



**Vermont Law School's
Environmental Law Center**
where the Earth comes first

offering a one-year master's
degree in environmental law
for non-lawyers, a summers-only
master's degree for law students,
and an LL.M. for lawyers

(800) 227-1395 x2217

elcinfo@vermontlaw.edu

www.vermontlaw.edu



**VERMONT
CONSUMERS'
ENERGY CO-OP**

73 Prim Road, Suite 3
Colchester, VT 05446

Tel: 802-860-4090,

1-866-626-4328 (toll-free)

email: info@vcec.org

web site: www.vcec.org

*Service available in most
parts of Chittenden, Lamoille
and Grand Isle counties and
much of Barre, Montpelier,
Berlin, Middlesex and East
Montpelier*

Heat Your Home for Less!

Join the Co-op! Last winter, Co-op members
saved more than \$70,000 on their heating bills.
You can too! Join our fast-growing family of
savvy homeowners and enjoy:

- *Lower heating bills*
- *Home delivery of #2 fuel oil and kerosene*
- *24 hour emergency service for your furnace or boiler*
- *Worry-free automatic fuel delivery*
- *Our "Never-Run-Out-of-Fuel" guarantee*
- *Cash discount, pre-buy and budget pricing plans*



9 BAILEY AVENUE
MONTPELIER VT 05602

E-mail: info@vnrc.org
Web: www.vnrc.org

Non-Profit Org.
U.S. Postage
PAID
E. Barre, VT
Permit No. 2

*The Vermont Environmental Report is printed on recycled paper with soy-based ink.
Please recycle this issue by sharing it with your family and friends!*



Con Hogan

JOIN US!

Join VNRC for a forum on the environment with gubernatorial candidates Con Hogan, Doug Racine, Jim Douglas, and Michael Badamo.

Two years ago, VNRC hosted an excellent debate on environmental issues with the three leading gubernatorial candidates. It was a huge success! Candidates were asked about current environmental issues, and the audience was able to find out more about candidates' viewpoints and their pet issues. Over 400 people attended, and the debate was broadcast live across Vermont on Vermont Public Radio.

On September 26th, VNRC is hosting our second gubernatorial forum. Join us from 5:00 until 7:00 p.m. for the VNRC annual meeting, and from 7:00 to 9:00 p.m. for the debate. Both gatherings will take place at the Capital Plaza in Montpelier. Cocktails and light hors d'oeuvres will be served at the annual meeting. If you are not a member but would like to come early to attend our annual meeting and find out more about VNRC, please consider joining our organization!

The debate is sure to be lively and informative. A half-hour question and answer period open to the audience will follow. All VNRC members will be sent invitations to the annual meeting, but the debate from 7-9 will be available to the public. Please bring friends and family!

For more information, call Jimmy Fordham at VNRC (223-2328) or email him at jfordham@vnrc.org.



Doug Racine



Jim Douglas



Michael Badamo