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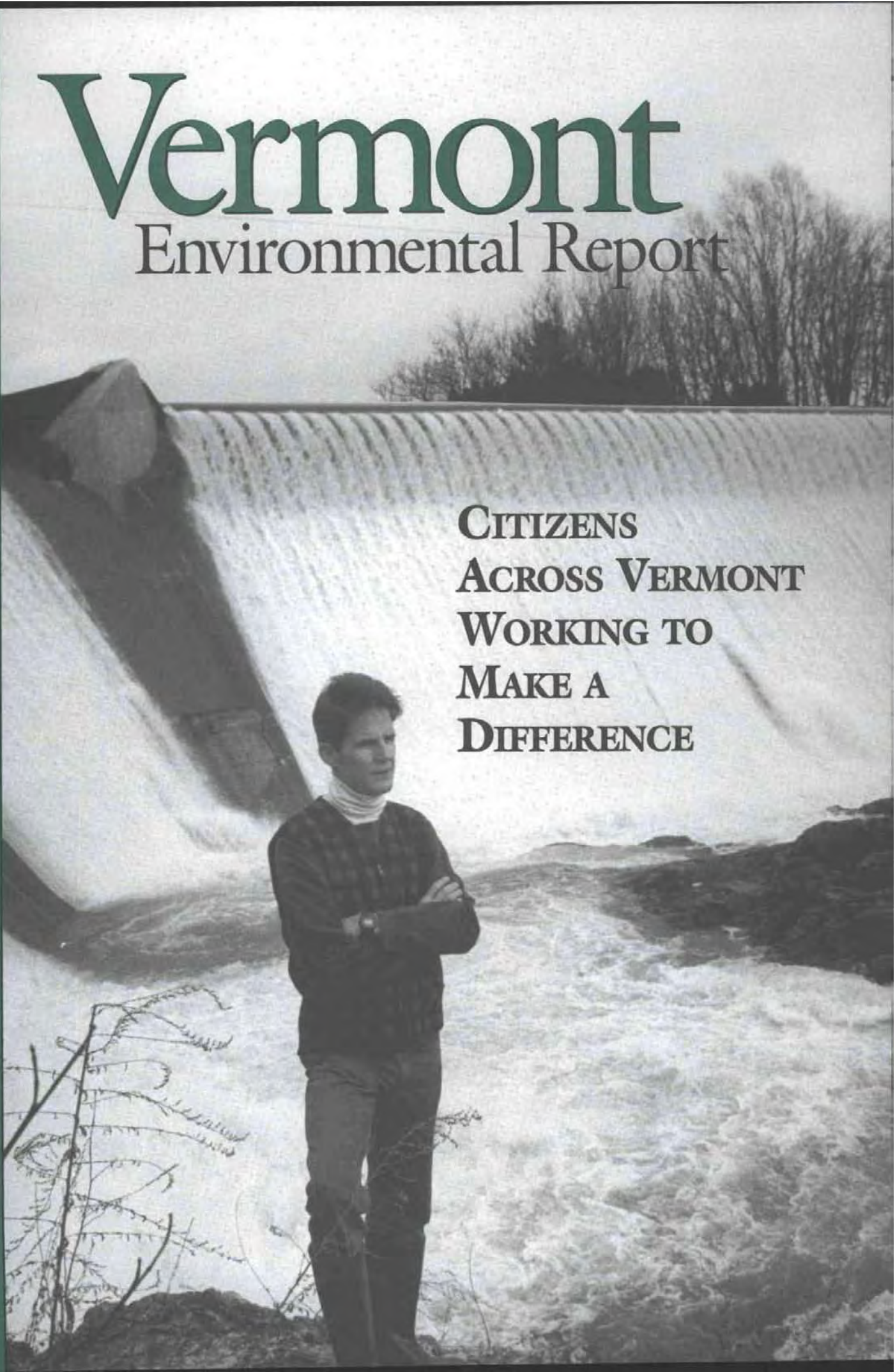
Vermont

Environmental Report

Published
by the
Vermont
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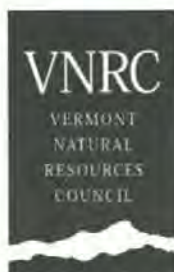
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THE INSIDE WORD

CITIZEN PARTICIPATION:

*The key to protecting Vermont's
environmental legacy*

BY ELIZABETH COURTNEY
Executive Director

Vermont has a strong history of environmental advocacy. It springs in great measure from the citizen participation practiced traditionally at annual town meetings across the state and the desire to protect the sheer beauty and bounty of the Vermont countryside. Vermont has been spared many of the ills of the twentieth century because of citizens' healthy environmental ethic. The long-standing New England traditions of bringing the community's concerns into the open forum of debate and dialogue at the town hall still play an important role in shaping Vermont's communities.

Unfortunately, this tradition is eroding as more and more people come to enjoy the environmental and historic integrity of the Green Mountain State without an awareness of the need to play an active role in its continued protection. In this issue of the *Vermont Environmental Report* we will celebrate our environmental laws and discuss the critical aspects of citizen participation in the processes.

Let's take a brief look at our thirty-five year legacy.

In 1968, Vermont's Governor Deane Davis, a shrewd businessman and avid environmentalist, recognized the necessity for land use protections in order to manage the significant proposed growth at ski areas. His political platform was based on environmental conservation through regulation designed to curb the effects of growth on the landscape and natural resources of Vermont. One of the most significant fruits of Governor Davis' labor was Act 250, the State's Land Use Development Law, which requires large developments to meet 10 criteria addressing water and air quality, soil erosion control, traffic impacts, burden on municipal and educational services, aesthetics, wildlife, agricultural lands, public investments, costs of scattered development and



local and regional plans conformance. The Vermont Natural Resources Council (VNRC) played a key role in building the coalition which led to the passage of the Act in 1970.

Almost 20 years later, after favorable results ensued from Davis' leadership and VNRC's advocacy, Governor Madeleine

Kunin based her political platform on environmental conservation through growth management and planning. Governor Kunin recognized that Act 250 could only regulate the largest developments in Vermont. And she identified another major threat to the Vermont environment — sprawl. Kunin realized that the incremental erosion of the landscape and natural resources by what author and planner William H. Whyte referred to as "tremendous trifles" was a problem that Act 250 alone could not solve. With the assistance of VNRC's research, education and advocacy, the product of Governor Kunin's efforts was the Growth Management Act, Act 200, a planning law which enables local and regional planning entities to address the issues of growth pro-actively. The first goal of Act 200 was to "encourage growth which reinforces the traditional settlement pattern of compact villages surrounded by open countryside".

Fifteen years after Kunin first took office, Governor Howard Dean bases his platform on environmental conservation primarily through a very different and much less participatory means — land acquisition. Governor Dean has helped to facilitated some of the most significant land deals in Vermont over the past five years, including the purchase of the Champion International lands in the Northeast Kingdom. This approach to environmental conservation would be a welcome "icing-on-the-cake" to the legacy of the Davis and Kunin administrations, if that legacy remains intact.

Right now that appears to be a big "if".

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WORKING TOGETHER TO KEEP VERMONT SAFE, HEALTHY, PRODUCTIVE AND BEAUTIFUL

BY LIEUTENANT GOVERNOR DOUG RACINE

As I addressed VNRC's annual meeting in the Vermont Senate Chamber on October 23rd, I reflected on the many environmental debates that room had witnessed in recent years. The 1980s were a time of significant victories. As a State Senator during that period, I participated in passing several pieces of historic environmental legislation. Those bills enabled Vermont to:

- protect drinking water from leaking underground storage tanks;
- give communities stronger land use planning tools through Act 250;
- protect upland streams and watersheds from the disposal of ski area effluent;
- reduce, recycle or safely bury out solid waste through Act 78;
- be a strong partner with the federal government in the protection of Lake Champlain;
- save farmland and open spaces through the Housing and Conservation Trust Fund.

That was an important time in our history, and as a result we continued our national leadership in the protection of natural resources for our own quality of life and that of future generations.

With a declining economy in the late 1980s, the momentum for sound environmental legislation slowed. And then in 1993 we hit an all time low. A narrow Senate majority in effect fired three members of the Environmental Board in a partisan and nasty attack on a Board that was simply doing its job. In a very short time span, the pendulum had swung.

From that low point, the pendulum is swinging back, but we still have a long way to go to return to the days when environmental protection is at or near the top of the priority list for legislative action.

While there have been some victories to celebrate in the last few years—the protection of Vermont's northern forest lands; restrictions on clear cutting; mercury labeling legislation; full funding of the current use program; Act 60's statewide property tax; and others—the current political atmosphere in Montpelier is problematic for strong environmental



Doug Racine and Elizabeth Courtney talk on the steps of the State House.

protection. Few elected officials think of themselves as environmentalists; legislative energy is most often focused on holding the line against attacks on Act 250 and other environmental laws; efforts to respond to new or growing threats to our public health and natural resources have failed; and Vermont government's record of enforcement has suffered from budget cutting.

A changing economy is producing new threats to Vermont's natural resources and

environmental health, but our laws and regulations have been slow to respond. Current policies have been inadequate in meeting the challenges posed by sprawl, big box retail development, expanding ski areas, and the advent of factory farms.

Water quality problems, both in our lakes and in our rivers and streams, are worsening. Unlike our neighboring states, we have yet to recognize the importance of stream bank protection. Acid rain from outside our borders and non-point source pollution from within continue to degrade Lake Champlain and other water bodies. The federal EPA has found it necessary to push Vermont into compliance with clean water laws.

What is most disturbing is that in the constant tension between economic development and environmental protection, our natural resources are consistently coming in second. Too many political leaders, business leaders, and average citizens have taken the position that just about any development, any place, is worth the price of environmental degradation. What is new and alarming is that we are hearing it in a time of relative prosperity and high employment. The concept of smart and properly managed growth is not often applied to economic development in the current political climate.

The vital links between our quality of life and a prosperous economic future are not commonly recognized. We do not sacrifice jobs when we vigorously protect our environment; instead, we enhance our economic prospects.

Visitors come to Vermont because they enjoy our scenic beauty, our farmland and open spaces, and our small towns and villages.

Locally produced goods sell well, and often get a premium price, because of the

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LETTERS



Dear Ms. Courtney:

As a Republican Conservative, a long-time skier, ski club founder and ski trip planner, I don't usually end up on the regulatory side of an issue involving government and the ski industry. However, I wholeheartedly support your effort to block Killington's expansion of its resort village and lodging facilities.

The water resources in the Killington area are already overtaxed with the existing condos and single-family homes. In the early 1990s when the last drought occurred, I had a friend that worked at one of the condo complexes near the mountain. She told me that they parked an 18-wheeler water tanker on the property and hooked it up to the water supply so that they could maintain water pressure for the complex. And they want to add more burden to this mess? Improving the mountain and its facilities for the skiing population is good. Adding 23,000 beds (Is that right?) in a location where the water resources can't support them is just stupid and greedy. What are they going to do when the water runs out and all the tourists/skiers go home?

I've e-mailed the American Skiing Company my thoughts on the subject and hopefully they will reach Les Otten. From what I've heard, he's a reasonable man to deal with. You've got to wonder how much control Les has over the American Skiing Company these days. After a bad season nationwide, they were in trouble and . . . they were bailed out with a \$150 million of capital from Oak Hill Capital Partners, Ltd. They now own the majority of stock in ASC.

Good luck in your fight to block the addition of any more overnight lodging facilities at Killington.

Sincerely,
Ed Thomas
Founder, Pinnacle Ski & Sports Club

Dear Editor:

Thanks for your excellent report on Lake Champlain's Pollution Problems.

Although we can mitigate its impacts, continued development, and particularly large-scale development, is going to have an adverse impact on our environment and quality of life in Vermont.

Its time to more seriously question development such as new highways, shopping malls, and factory farms, and ask who benefits, who loses, and what are the long term impacts. Its also time to begin the shift from a continuous economic growth paradigm to a sustainability paradigm that emphasizes a better quality of life for all and not a bigger and bigger human footprint on the planet. "Growing better, not bigger," is a concept I like a lot.

Thanks for having the courage to provide leadership on these issues. Keep up the good work.

George Plumb
Washington, Vt.



Elizabeth and Staff,

I'm writing to express my view that the "Opinion" article by Robert F. Kennedy, Jr., in the Summer 1999 issue of *Vermont Environmental Report* may well have been counter-productive to VNRC's efforts to advance its mission. I strongly support that mission, yet found the Kennedy article troubling and offensive for reasons described below. My first instinct, midway through that article, was to discard your publication without reading further. I feel that this reaction may have been shared by other readers. I urge you to consider carefully the pros and cons of future editorial decisions to print such an article.

My concern is not whether Mr. Kennedy's views have merit, but whether

the tone of presentation and the choice of subject matter are appropriate to the advancement of VNRC's goals. The contrast with the excellent writing and direct mission relevance of Mr. Lindner's article "Sacred Cows" in the same issue could not be more striking. Indeed, Mr. Lindner's article is a fine example of a balanced mix of research, education and advocacy perfectly in keeping with the VNRC mission.

By contrast, Mr. Kennedy's deliberate choice of such charged language as "fetid, virulent and putrefying hog waste," "choking, miasmal vapors," pustulating lesions," and chickens "laying their guts out," create copy more suitable for a supermarket tabloid than for VNRC's flagship publication.

In that same issue, the statement "We are the polluters," in your own editorial article and Mr. Lindner's sensitive treatment of the fact that "It is Vermont that most degrades Lake Champlain," are far more insightful, thought-provoking and constructive than Mr. Kennedy's arm-length exhortation of "industrial meat moguls" and "law-evading billionaire agricultural barons" and his apotheosis of family farms and farmers.

I recognize that Mr. Kennedy's article was printed in your "Opinion" section and that your masthead asserts that opinions expressed are not necessarily those of VNRC. But just as that same masthead reserves the right to refuse advertising that is not in keeping with the objectives of the organization, I urge you to consider the advisability of publishing opinion pieces which do more to feed the popular appetite for colorful language and sound-bite journalism than to advance the VNRC goals of protecting Vermont's natural resources through research, education and advocacy.

Sincerely yours,
John G. Whitman, Jr.
Readsboro

THE INSIDE WORD
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The perennial attack on Act 250 is yet again under way in the Legislature. At risk is the very core of Vermont's land use development law — citizen participation. Only recently did the Environmental Board drop its pursuit of changes to the party status clauses of the Act, due in part to VNRC's strong voice against their proposals. Adequate funding for Act 200 planning, which had been dramatically slashed in 1994, is gradually working its way back up to its original levels. The Agency of Natural Resources remains notably understaffed in the enforcement and planning divisions.

There is no amount of land acquisition that can compensate for the erosion of Governor Davis' and Governor Kunin's legacies. The lack of enforcement of our State and Federal environmental laws and the lack of political leadership on environmental issues in Vermont has now seemingly brought the Green Mountain State to a low point in environmental consciousness. This is an especially sobering realization when we consider that we are experiencing very high levels of employment and prosperity.

Winston Churchill once queried whether the times made the individual or whether the individual made the times. Surely it's a little of both. VNRC's role in the past has been to actively research, edu-

cate and advocate for the environmental initiatives of Vermont's inspired leaders and to defend their legacies in times when they are under attack.

Today VNRC will exercise new leadership skills to inspire individuals and groups who never before knew that they were environmentalists. These groups include public health officials, farmers, home builders, business owners, educators, students or clergy. It is clear that we need to bring the broadest cross-section of citizens back into the discussion about the environmental health of Vermont. By assuming responsibility for the vitality of Vermont's environmental quality, we can leave behind a legacy of which Vermonters can be proud.

OPINION
continued from page 2

image inspired by the name of Vermont.

Business owners and entrepreneurs often choose to do business here because they desire the Vermont pace and quality of life for themselves, their families, and their workers.

If those connections are not recognized in good economic times, they could easily be forgotten when a downturn occurs.

In many ways, we have all become complacent. We are resting on our laurels, believing that Vermont's environment is pristine and healthy, and second to none in the nation. Political leaders, editorial writers, and public radio commentators all extol the virtues of Vermont's sense of community, our village centers surrounded by a productive, working landscape, and a healthy environment in which to raise our children. But those values are being challenged in an unprecedented way, and the extolling of our virtues is in danger of being more nostalgic than real.

We can do better.

Vermonters do share a vision. We do want our state to always be the special place that we love. When our vision is threatened, we respond as we did with Act 250, as we did in the 1980s, as we did with the recent purchase of the Champion lands, and as

we do on a daily basis with many of our personal lifestyle decisions.

As individuals, political leaders and organizations, we must focus attention on the very real threats to our environmental vision. If Vermonters are educated about the impacts of environmental degradation on their health at the local and state levels, more pressure for action will come to bear on our local and state leaders.

We must all be willing to involve ourselves to a greater extent in local decision

making about regional plans, town plans, and zoning regulations. The tools are in place to determine our destinies if we are willing to use them aggressively.

Environmental concerns, once a regular topic of political discussion at election time, must once again be heard at every public debate and forum. Environmental groups must be better organized to develop grass roots responses to the many issues that require public attention and political action.

I am optimistic.

Vermonters have always responded positively to challenges to our environmental quality of life, and we will again. Farmers, sportsmen and women, business leaders, environmentalists, and all citizens have come to recognize that our collective future requires attention to and respect for the natural world around us.

What makes me the most optimistic is the many conversations I have with children around the state. Children are concerned about their futures. They encourage their parents to recycle. They ask about their world and what it will look like when they grow up. If for no other reason, we must do a better job in protecting our environment as a responsibility to our children.

Working together, working harder, working smarter, we can achieve our shared vision of a safe, healthy, productive and beautiful Vermont.



Your Environment Wants **YOU**



*But Some Laws
Don't Make
Participation Easy*

By WILL LINDNER

Vermonters may be forgiven for displaying a certain hubris about their environment, and their stewardship of it. Theirs is a state whose legislators were prescient enough in 1967 to ban roadside billboards, sparing citizens the crass visual blight suffered by motorists nearly everywhere else. And Vermont was one of the first states to adopt a bottle-return law to control the mounting debris of disposable containers, defying the industry's warning that the public would suffer because bottling companies would decline to serve, at extra expense, the mere half-million residents of the Green Mountain State.

Vermont has for years swum against the tide. While other states were developing willy-nilly, Vermont became famous for its scenery — its mountains and rivers and working agricultural landscape — and also for the things you don't see here: sprawling auto junk yards, concrete shopping centers built shoulder to shoulder, and the skeletons of fly-by-night hotel and condominium developments.

The citizens feel they share in the credit for all this. They have a sense that their relative freedom from the most blatant signs of environmental degradation didn't just happen, that it reflects something of the nature of the Vermonter: an anesthetic appreciation of the wild, and a native inclination against waste and ill-use. That their government has developed laws and procedures — most significant of all, Act 250 — to ensure that those values can be expressed in official forums by private citizens, and heard amid the hubbub of development, is not a coincidence.

But today, nearly 30 years after Act 250 was authorized in 1970, there is reason to worry whether, in the structure and administration of its environment-related laws, Vermont will remain hospitable to citizen involvement. Momentum may be shifting away from providing citizens input in the public processes that evaluate development and agricultural plans. The signature law, Act 250, seems destined to run a gauntlet of assaults upon its most vital feature — the provisions it makes for citizens to be heard.

The latest such threat ended in October when the state Environmental

Board, which hears appeals of permit decisions made at the local (district) level, decided against pursuing a slate of procedural changes that the Board itself had proposed. But the next threat is already visible on the horizon: a political battle looming in the 2000 legislative session, when House members of a summer study committee bring forth their recommenda-

committee could have built on Act 250's tradition of involving citizens in the permitting process, and perhaps given them the right to appeal LFO permits to a court or for reconsideration by the Department of Agriculture, Food and Markets (DAFM). But the final product is a law that seems in some respects to be purposely vague, which places all permit-and enforcement-related authority with the agriculture commissioner, and denies citizens any meaningful recourse to appeal.

If there were a precedent in Act 250 for citizen participation, you can't find it in the LFO law. But, interestingly, you can find Act 250's spirit of inclusion elsewhere — not in state statute but in the 1972 Clean Water Act, a far-reaching body of rules, regulations and standards that Vermonters have used to great effect to protect the ground and surface waters. So much for environmental hubris. In this state, we need to struggle to keep what we've got — citizen access to Act

250 process — and work to expand it further, for example by creating new and more inclusive procedures when the LFO law sunsets in 2000. Meanwhile, for citizens, the Clean Water Act is the horse to ride — in Vermont as in every other state in the USA.

ACT 250 BATTLEGROUND

"Due to the overwhelming negative response the Environmental Board received on its proposals to change the rules for party status [in Act 250 hearings], the Board decided to put these issues aside," said a relieved Elizabeth



VNRC's staff scientist, Kim Kendall, speaks to watershed activists about the importance of citizen participation.

tions for reforms VNRC believes would favor applicants and discourage citizen participation.

And as Act 250 fends off these serial challenges, another law, which could have opened doors for people to exert a measure of influence when large-scale agricultural enterprises posed a threat to their homes, businesses and communities, closed those doors instead.

Vermont's Large Farm Operations (LFO) law, drafted in 1996 and amended by the Legislature in 1998, emerged this October from the rule-making process conducted by the Legislative Committee on Administrative Rules (LCAR). The

Citizens gain their voices through the use of state and federal environmental laws

CITIZEN ACTIVISTS WORKING TO MAKE A DIFFERENCE

GUY CHOINIERE 'Counting Flies' In Highgate

By WILL LINDNER

In 1993 Guy Choiniere, a third-generation dairy farmer in Highgate, Vermont, married a girl from town. Beth had grown up in St. Albans, but now she would become a farmer's wife. Guy looked forward to introducing her to his world.

"When I brought my wife to the country I was proud of it," he says.

And with reason. The 275 acres where Guy keeps a dairy herd of around 100 cows, generally milking 65 or so at any given time, and where he grows corn and hay, is the land his grandfather purchased in the 1930s. A French-Canadian priest had come down across the border and discovered lots of land available in northern Vermont, so he recruited several families from Quebec who made the move and established a small, ethnic community around Highgate. One of these families was Guy's grandfather's. Guy's father now owns the farm, but Guy, 33, plans to buy it when the time for transition in the family arrives.

The trouble is, some of the blush has gone off the rose. In 1995 a Canadian company purchased land adjoining the Choinieres' and built the first stage of what has become, in essence, an egg factory. Soon 100,000 chickens moved in, and their manure surely drew many times 100,000 flies - pests that did not recognize

property lines.

"We had flies in the house so bad the kids would wake up at night crying," says Guy. "In the barn, it made the animals

became problematical from month to month.

"The flies spread bacteria from one cow to another," Guy explains. "It creates an



Guy Choiniere at his farm in Highgate.

very irritable. You know, it's bad enough milking when the cows are comfortable. It was getting so it wasn't worth farming at that point."

The Choinieres were not alone in their trials. Families all around the Vermont Egg Farm suffered physically, emotionally and even economically. Guy's cousin Luke Choiniere, who farms downwind of the egg farm, regularly achieves awards from the St. Albans Co-op Creamery for the quality of his herd's milk; but after the flies came, earning that designation — and the cash premiums that came with it —

infection in the bag, and that affects milk production and quality."

Farming was already changing around Highgate. "I have big farms going up all around me, mega farms on each side of me," says Guy. "There are 2,500 dairy animals within a mile radius. The Rock River here is already polluted, and that many animals can't help but add to it."

But "fly pollution" was something else. Guy felt he must take action to protect his family, so he joined Concerned Citizens of Franklin County (CCFC), which was formed in

1995 by people alarmed at the problems introduced to their area by the egg farm. Acting within a group, Guy believed, would be safer from a legal standpoint than criticizing the egg farm's operations as an individual.

Not to mention that a group could make more noise.

"That's what it took," he says. "Some of us did it in a more quiet and controlled manner, and some did a lot of hollering. But if you were nice and calm about it, it didn't help. In our case, the name callers started in first, but that was out of frustration because the agriculture department wasn't reacting."

Guy and other CCFC members approached their local legislators and also took their case to Montpelier and the House Agriculture Committee. They called the Health Department; they called the state entomologist; they called the press.

"We had to force it into the public eye. It was the only way the legislators would pay attention," Guy explains.

But having gotten their attention, the group found the work was just beginning. "Unfortunately, the burden of proof was on us," says Guy. "We had to prove our claims. We had to count flies. We would put up sticky rolls [fly tape] and bring the sticky rolls to them. We had to show milk-production records. It

was unbelievable the burdens they put on us. Here we were, working people, and they wanted records, records, records. It took a long time to gain their respect.

"When we came up with the information and started proving ourselves, when things we had predicted started happening, they finally believed us," he says. "But it was nerve wracking. Most of us are farmers. We like to stay at home and work with the animals. We've never bucked the system, never bucked authority. It ended up that that's what it took."

The experience taught him that citizens can make a difference. "But it's not easy," he says. "It's not set in stone that there will be a place for you in the process. We pushed our way in."

KNOCKING ON THE DOOR

Things have improved for neighbors of the egg farm now, though Guy credits a court injunction stemming from a lawsuit, rather than any convincing action by the Department of Agriculture, Food and Markets (DAMF) or the Legislature. The egg farm now trucks its manure to a composting facility downstate once a week, alleviating the fly infestation.

"They've definitely cleaned up their act," Guy says.

So he has shifted his attention from the egg farm specifically to factory farming in general, and to the Large Farm Operations (LFO) law the Vermont Legislature approved in 1996, with amendments added in 1998. Rules for administering the law were only finalized this past October.

Like the egg farm, Guy points out, the large-scale

dairies now forming in Vermont have only a tenuous connection to the land they sit on. The cows don't graze, but spend their lives in the barns until their usefulness has expired. "They truck in feed because they don't have the land base to produce it, and they truck the manure out because they don't have the land base to dispose of it," he says.

Still smarting from their experience of feeling ignored, the CCFC lobbied during the LFO rule-making process for a means for local citizens to be heard when the DAMF evaluates permit applications. "But I can't say we succeeded," Guy admits, noting that the final process leaves local people out of the dialogue and gives them no right to appeal permit decisions that might

well affect them.

Guy and the CCFC also pushed for consideration in the permit process of the economic impacts LFOs have, in a variety of ways, upon their communities — and upon the future of farming in Vermont.

"They should ask how many farms will this guy put out of business? How much will this operation drive down milk prices? That's not even looked at," says Guy.

In his opinion the new rules grease the way for permit approvals, and provide little in the way of enforcement if the terms of the permit are violated. That's why Guy found ironic the advertising he saw during a trip to the Burlington airport recently, which was clearly aimed at tourists.

"The farming section showed an old red barn, with

a silo and a hay rack, and cows all around," he says. "But in Montpelier, that's not the agriculture they are supporting."

Moreover, he knows there's more at stake than just the future of family farms like his, which he realizes may not be viable, nor even attractive, for his children to take over some day.

"What I'm afraid of is what Vermont is going to look like when this race is over. Right now, people are plowing right up to the river bank; they're pushing their land with fertilizers to get the most production they can."

"We may win or lose this fight, but we have to keep an eye on what's going on with the environment. Because it's our kids that will have to live around here."

KEVIN McMAHON

'These Waters Are My Waters'

By WILL LINDNER

Most people would have just driven right by. People pass the Essex No. 19 hydropower dam every day in droves, and if they notice the dam at all it's only to admire its towering walls and dramatic, sweeping curves. Kevin McMahon could give a horse's patoot about sweeping curves. He looks at the water — the flow over the lip of the dam, the depth of the pool below — and his mind is on fish. His is not merely a lust for catching fish, but for safeguarding fish, for ensuring that the rivers of

Vermont are kept in sound condition to provide the environment the browns, brookies and rainbow trout need to thrive.

One glance at the water below Essex No. 19 on this June evening in 1998 told him the river was in trouble. He and a fishing companion had been chased off the upper Winooski River that evening by a violent thunderstorm sweeping in from Lake Champlain, but the weather had cleared and they decided to check out a hole near the broad dam just below the five

corners in Essex Junction, thinking they might get in another half hour of angling before dark.

"What I saw absolutely horrified me," Kevin remembers. "The river had stopped flowing! It was completely puddled. I had never seen a river in that situation. I desperately tried to call GMP (Green Mountain Power Corp.) on the cell phone, then I raced back and pounded on the door of the power house."

"A technician came out, and I said, 'What are you doing? The river stopped

CITIZEN ACTIVISTS WORKING TO MAKE A DIFFERENCE

flowing!" And he said, "I'm trying to fix it."

What had happened, Kevin explains, was that the power station had been hit by lightning, which shut down the turbines and prevented the station from passing the water through from the impoundment, except for a trickle down a fish slide. The backup system for such an emergency is to deflate the rubberized lip of the dam, which allows water to spill over the top. On this night, that mechanism wasn't working.

Kevin stayed around. And what he saw downstream 35 minutes later, when the water began flowing again, appalled him almost as much as the barren riverbed had.

"The nymphs that make up the biomass in the river are now faced with a surface current, and suddenly these deep dwellers become surfers. The zones are starting to mix, the clingers and the nest builders are being turned over, and it's a total mud bath."

So much for the integrity of that ecosystem.

But Kevin McMahon, 45, isn't one to ignore abuses of the public waterways, be they intentional or not. Vermont's rivers aren't just trenches with water in them, geological constructs convenient for the production of hydroelectricity. As an inveterate angler (Question: "Where do you like to fish?"; Kevin's answer: "None of your business"), he knows they are intricate, balanced ecosystems. He takes seriously violations of the minimum-flow requirements that power companies commit to with their Federal Energy Regulatory Commission (FERC) licenses. So he makes it his business to know their business.

"When you go after these guys you've gotta have the goods," says McMahon, who

is self-employed in marketing technical products, "and I've got the goods."

He has discovered you don't have to be knee-deep in a trout stream to know when flows are too low. You can do



Citizen activist Kevin McMahon

it from the comfort of your home, by logging onto an Internet web page maintained by the U.S. Geological Survey. It provides readings from in-stream gauges placed in rivers all over the state. Kevin familiarizes himself with the details of the licensee's obligations (minimum-flow requirements vary seasonally, and are specific to river sections) and monitors the web site; when he notices sustained or repeated violations he isn't shy about blowing the whistle.

Never was he more vigilant than in the summer of 1999, when Vermont suffered a serious and prolonged drought. Low flows during summer are dangerous to fish because the sunlight has a greater heating effect on shallow water, which is exacerbated by the exposure of normally submerged rocks that retain heat and broadcast it in the water. Higher temperatures alter the climate for the fish and deplete oxygen con-

tent in the water.

Monitoring sections of the Winooski controlled by GMP, he spied below-minimum flows on specific days in every month from May through September. His reports to

critical flow, but they covered 2,000 feet of prime fishing area with mud in a drought year, when the flow is not only low, but hot. The biomass that provided those trout with food is no longer there. It's caked in the mud."

Kevin's intense concern for Vermont's rivers also extends to municipal waste discharges. Presently, he has his eye on Northfield, where he says dyes from a manufacturing plant are showing up in the Dog River, and Randolph, where chlorine from the municipal swimming pool appears to be entering the White River.

'DEAR SENATOR'

As a board member and secretary of the Central Vermont Chapter of Trout Unlimited, and vice president of Lake Champlain International (which stages fund-raising fishing derbies), Kevin acts within a network of like-minded devotees of sport fishing and the natural resources that go along with it.

He believes one of Vermont's greatest policy failures is not recognizing and promoting the commercial value of those resources, instead allowing the rivers to be tapped, throttled and squeezed for the production of electricity. It's a point he drives home to anyone who will listen, or who he can make listen.

Including U.S. Senator James Jeffords.

October 4, 1999. "Dear Senator Jeffords: I have in front of me a copy of your letter to Vermont Outdoor Magazine . . . re: advocacy on behalf of Green Mountain Power. . . Beginning with your comment about your support of the Clyde River dam removal: There is no difference between Citizens Utilities five

state hydrologist Jeff Cueto, with printouts from the USGS website, resulted in a highly detailed letter from Cueto to FERC's Office of Hydropower Licensing (the state has no enforcement authority over federal license provisions), in which Cueto said, "GMP alleges that the violations were caused by the drought. Drought conditions cannot be used to explain the problem."

Also high on Kevin McMahon's list of water-protection outrages this summer was the widely reported incident at the Middlesex Gorge Dam on August 4, when GMP — which had obtained FERC permission to perform repairs on the dam — allegedly mis-handled the flow and spread silt far downstream, which Kevin says destroyed a "spectacular" fishing spot. A legal case between the state and GMP is now in civil court.

"Not only were they [obstructing] the river at this

years ago and Green Mountain Power now. Both companies, like all hydropower companies in the state, have adversely interfered with the natural hydrology and quality of Vermont waters — recreational waters representing a greater economic value to the state than the power rates offered by any of these companies."

He goes on to inform the senator that water-based recre-

ation in Vermont is a \$109-million business that creates up to 3,600 jobs in peak season and generates \$5.5 million in tax receipts.

Kevin has high regard for the people who staff the state agencies and care about protecting Vermont's waters, but he distrusts the policy makers, whom he believes are beholden to the skiing and hydropower industries. It

therefore falls to citizens like himself to advocate for the rivers.

For him, it is sport fishing that bonds him to the riverine ecology and stimulates his desire to protect it. "If you fish for 30 years you begin to understand what water quality is, and the value of it," he says. Others may take a different route. The important thing, he says, is to make the trip.

"It takes someone recognizing that 'These waters are my waters; I have a constitutional right to enjoy them.'"

The power companies, he says, "are taking advantage of our resources, paying dividends to their stockholders even in a drought year, and I'm sick of it."

BILL AND BETSEY UPTEGROVE

Citizens of a 'Biotic Community'

BY WILL LINDNER

Two vehicles pull to a stop on opposite sides of a dirt road somewhere in the wilderness of Jamaica, Vermont. A woman steps out of one vehicle, a pickup truck, and fishes inside for a container, which she carries to the occupants of the other car. They get out — a man and a woman — and take the container, then open their trunk and place it inside. A few words are spoken, then all three get back in their vehicles and drive away.

The transaction, under gray skies and far from prying eyes, has all the earmarks of some nefarious exchange of contraband. On the contrary, it is the innocent relay of a water sample, which the first woman, Darlene Palola of Windhall, had carefully withdrawn from the North Branch Brook nearby, and which Bill and Betsey Uptegrove, driving the second car, would then transport to a testing laboratory in Brattleboro.

It's the nuts and bolts of

water-quality monitoring, an activity performed by scores of Vermonters keeping tabs on the condition of the brooks and rivers in their areas. The information helps the state Department of Environmental Conservation stay informed about the countless waterways for which it is responsible, and it helps developers (in this case, it was the Stratton Mountain ski area) conform to the conditions in its Act 250 permits that charge them with protecting natural resources.

"We've been collecting water samples almost as far back as we can remember," says Bill Uptegrove, 79, who, along with Darlene and his wife Betsey, 76, is a charter member of the Stratton Area Citizens Committee.

SACC is famous for its vigilant monitoring of streams and rivers in the mountains of western Windham County, its meticulous preparation for hearings before the District 2 Environmental Commission, and its omnipresence wherever

decisions are made that might affect the conditions of the Kidder Brook, the North Branch, Pikes Falls and other local waters.

"SACC comes to the table with facts and sound scientific arguments which have formed the basis for good land-use decisions over the years," says VNRC's Steve Holmes. "When they come to an Act 250 hearing they are a force to be reckoned with."

That's no accident. As Bill Uptegrove says, "You don't get anywhere in this kind of work unless you know the subject as well or better than your opponents. You need to be familiar with the regulatory process and the technical details."

Proof of SACC's effectiveness lies in a 15-year paper trail that shows how SACC has used Act 250, town ordinances and the Clean Water Act (CWA) to preserve, protect and in some cases reclaim stretches of waterway. Formed in 1984, the Stratton Area

Citizens Committee has so many notches on its belt for accomplishments in protecting the watershed, that it can hardly keep its britches up.

In 1989, SACC successfully petitioned the Vermont Water Resources Board to have the Kidder Brook assigned a Class A designation under Vermont's pristine stream law (a state vehicle for pursuing the goals of the federal CWA). Two years later, SACC petitioned for, and won, an Outstanding Resource Waters (ORW) designation for Pikes Falls on the North Branch.

Again, it was a matter of preparation.

"Betsey is as expert as anybody I know in Vermont's water quality laws," says Holmes.

These were not meaningless victories. Those protective classifications have reined in some of Stratton's most ambitious expansion plans — hotels, golf courses and condominiums that would have further degraded already damaged

surface waters. The land-use permits that Stratton has won have included conditions requiring the resort to protect the Class A and ORW resources and their tributaries, and to remedy earlier transgressions.

Betsey Uptegrove thinks that's beautiful. "Stratton is committed to trying to help maintain the water quality of Pikes Falls even though it's not on the resort's property," she chuckles. "We bring that up at almost every hearing, and I think they're getting kind of fed up hearing it."

But SACC never let the resort — or the district commission, for that matter — forget that obligation during hearings on Stratton's Master Plan permit for expansion. The plan and the permit, recently bestowed by the commission, lay out Stratton's responsibility to protect those water resources that remain in good condition and to improve resources that were damaged by earlier ski area development projects.

Betsey notes proudly that the district commission praised SACC for its contributions to the hearings and invited the group to continue to be involved.

PRESERVING PARADISE

For Bill and Betsey Uptegrove, SACC's latest achievements simply continue as a dedication to citizen action on behalf of natural resources. They want to preserve as much as possible of the Vermont they knew as stu-



Bill and Betsey Uptegrove in Jamaica.

dents at the Putney School in the 1930s. In those days, Bill says, "You could swim in all the streams. The West River was sparkling clear."

On weekends, Putney students would spill out into countryside, and Bill remembers hospitable farm families allowing him to sleep in their barns overnight and feeding him breakfast in the morning.

"To us city kids," he says, "it was paradise."

Bill and Betsey bought the Jamaica farmhouse in 1951, but Bill's job with the county planning department in Rochester, N.Y., prevented them from living in Vermont. But at age 55, his earliest opportunity to retire with a pension, the couple moved

here full time.

"It looked like we could live a pleasant life in Vermont, and the sooner we could get started the better," says Bill. Their children, now grown, are lured for frequent visits by memories of summers spent with their parents in Jamaica.

Once here, the couple found there was no dearth of environmental causes that needed them, and their dedication blossomed unexpectedly into a post-retirement career.

In the mid 1970s the Uptegroves helped form the Vermont Wilderness Association, which rallied to support a Congressional initiative to expand "roadless" areas in the Green Mountain National Forest. Bill went to Washington, D.C., with other members of the wilderness association to meet with Vermont's congressional delegation. The effort led to an increase of 55,000 acres of protected wilderness in Vermont.

Not long after that, an aerial survey of radioactivity revealed the presence of uranium deposits in Jamaica, and the little Vermont town became the focus of international mining companies. Suddenly, peaceable Jamaica was caught up in the alien world of nuclear fission.

In 1980 the Uptegroves

joined a citizens group led by activist Malvine Cole, which in the end not only prevented companies from mining uranium in Jamaica but persuaded the Legislature to amend Act 250 with language that has effectively barred the extraction of "fissionable source material" anywhere in Vermont.

What VNRC's Steve Holmes admires most about the Uptegroves is that their concerns stretch far beyond their immediate surroundings. "They're not NIMBY people," he says (meaning "Not In My Back Yard"). "They look at the issues of environmental protection from an ecosystem standpoint. And they engage in the process constructively, so they're helping to build a community through planning and care for the watershed."

Not all the Uptegroves' efforts have been so resoundingly successful, but Bill believes that an academic approach to the subject matter brings the best results.

"Going to a good school, or a good college, where you learn to concentrate on the important parts of the task ahead, is the best training for environmental work," he says. "It's the same thing. You have to bone up and pass the exam, even if it's just a routine hearing."

Bill also takes inspiration from reading — Henry Thoreau, John Muir, Robert Frost. Perhaps his favorite literary passage is this, from Aldo Leopold: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

For Bill and Betsey Uptegrove, these are words to live by.

YOUR ENVIRONMENT WANTS YOU
continued from page 7

Courtney, Executive Director of VNRC, after the Environmental Board's announcement in the last week of October.

The Vermont Natural Resources Council viewed the proposed changes as an assault on citizen participation — not the least because VNRC stood to lose its ability to acquire party status in Act 250 proceedings. VNRC has provided information and expert testimony, leading to balanced permit decisions, in many important cases.

"They were going to change the rules so that 'materially assisting parties' would be eliminated as a category," said Stephen Holmes, VNRC Deputy Director for Policy.

District commissions and the Environmental Board confer party standing to: 1) "Parties by right," which includes the applicant and the landowner (if the two are separate), certain municipal, state and regional governmental bodies, and adjoining landowners who request it; and 2) "Parties by permission." These include: a) people who can demonstrate that the project will affect them and their interests, and b) "materially assisting parties," who convince the board or commission they can provide testimony or expertise helpful in reaching a just and

informed decision.

When VNRC seeks party status in a proceeding, it uses one or the other of these claims under "parties by permission."

"The district commission will want to know what our interests are," explained Holmes, "so we'll submit a brief saying, for example, 'VNRC has 25 members who live in the area and fish in the stream that's going to be affected by the project's storm water runoff.' But we've also been accepted as materially assisting parties because we can bring in hydrologists, rural economists or other experts to provide information and a perspective they're not going to get from the applicants."

Executive Director Courtney — a former Environmental Board chair herself — explained how important such information can be. "Applicants bring their presentations to the hearings, with drawings and narratives to support their proposal. Their presentation sometimes includes input from the Agency of Natural Resources or the Agency of Transportation, but all in all the evidence represents a certain perspective, which is the applicant's perspective. Usually the district commission or board does not have its own experts reviewing the information. So one could argue that without 'parties by permission' or 'materially assisting parties,' the reviewing body does not have a whole view of the project."

What happens when a lay board is con-

fronted by conflicting testimonies from the applicant and other parties? Courtney recalls that circumstance from her tenure on the board. "Sometimes the board will contract with a consultant to help them decide which evidence was more credible," she said. "I personally am convinced that the best decisions the board or a commission can make are when they have really looked at the proposal from all possible angles."

That capacity survives, for now, with the Board's decision not to pursue those reforms to the Act 250 process. But another threat to citizen participation may come during the 2000 Legislative session when a committee charged last year by House Speaker Michael Obuchowski recommends changes that Holmes believes would stack the permit process in favor of developers.

"From what I've seen of the debate, I expect the committee will come up with a bill we can't support," Holmes said. "It will be tough to stop this in the House, with 'blue dog' conservative Democrats holding sway on a lot of issues. People need to be aware that one of the premier laws we have in the state to protect the environment is under assault." Holmes anticipates a proposal by the committee to have appeals of district commission decisions conducted "on the record" by the Environmental Board, instead of "de novo." The board would study "the



Sylvia Knight, a Charlotte, Vermont citizen herbicide researcher, hands state legislators her testimony on the 1997 herbicide spraying moratorium.

record (transcripts and evidence) from the district commission proceedings, rather than conduct a new ("de novo") hearing of its own on the application as is usually done now.

"Whenever this has come up we have opposed the concept as being unfair to citizens,"

Holmes said. "On the record is a more formal proceeding, like in a court of law, and is probably one in which citizens are going to have to hire an attorney. It's daunting, and it can be prohibitively expensive for ordinary citizens."

Here, again, rises the matter of thoroughness — of the Environmental Board obtaining the information to make a truly informed decision. Not uncommonly, the hearing process at the commission level opens citizens' eyes to what kind of information they need to provide to make their cases, but by that time the hearings are finished. Meanwhile, practiced attorneys are representing the applicant. "De novo" proceedings at the board level give citizens another chance.

"You know," said Holmes, "these processes aren't supposed to be a matter of 'gotcha,' or putting one over on the commission. The purpose is to reach environmentally sound decisions."

The basis for these repeated attacks on Act 250's public-participation structure seems to be a pervasive belief in the development community, and in the Legislature, that citizens and advocacy groups routinely thwart perfectly sound and beneficial development proposals.

That belief is not supported by facts. VNRC recently reissued an updated report titled *The Valuable Role of Citizens in Act 250*, with information compiled from Environmental Board records. It shows that 97 percent of all Act 250 applicants receive permits, and only 2 percent of the appeals made to the Environmental Board come from parties other than the applicant or government (municipal or state) agencies. In other words, citizens are responsible for, at most, 2 percent of permit appeals.

There is a perception that citizens and organizations slow the permit process to the speed of cold molasses. Again, the information shows it is not so. The majority of permit decisions (58 percent) are issued in 60 days or less, and 70 percent



"these processes aren't supposed to be a matter of 'gotcha,' or putting one over on the commission."

The purpose is to reach environmentally sound decisions."

— Steve Holmes

are issued within 90 days.

The conclusion: Act 250

permit applications are overwhelmingly approved and are issued quickly. Most, in fact, are not even opposed. "It's such a non-problem that it astounds me the House study committee could be spending so much time on it," Holmes concluded. VNRC's report also makes an important point: "Any delay resulting from the raising, examining and consequent addressing of environmental and community impacts is a positive feature of the Act 250 process. Thorough evaluation . . . usually leads to permits that better protect the resources and communities Act 250 is designed to protect."

Why, then, the incessant efforts to weaken citizen participation in the law?

"The organizations involved represent past, present and future Act 250 applicants," said Courtney. "They want to instill a higher degree of predictability in the process, but that translates to wanting to take citizens out of it. There is no such thing as predictability in a truly democratic process."

SMALL FARMERS, LARGE FARMS

Patty Britch assumed she would encounter a fair and democratic process somewhere along the line when she and 130 neighbors and supporters formed the Concerned Citizens of Franklin County (CCFC) to remedy problems created by the construction of the Vermont Egg Farm Inc., about a mile from her home in Highgate.

But the group was disappointed. People's major concern was an alarming infestation of flies, caused by the manure from the 100,000 chickens that crank out

VEF's marketable product. They say you have to have lived through the infestation to comprehend it. The flies kept people awake at night, forced parents to stir pancake batter under netting to keep fly corpses out of the mixture, tormented cows and eroded people's investments in their homes and livelihoods.

However, the neighbors ran into dead ends when they sought a remedy. Appeals to the Department of Agriculture, Food and Markets (DAFM) produced no meaningful results, nor could the Act 250 process impose constraints on the egg farm because agricultural enterprises are exempt from Act 250. The Concerned Citizens attempted to convince the district commission that the egg farm shouldn't be considered agriculture — because there was an egg-grading station on the premises, it was an industry that produced a finished product. This argument got them nothing except thousands of dollars in lawyers' fees.

Nor could Highgate's zoning authorities help. The Legislature had exempted agriculture from local controls as well. The group eventually found a forum for its complaints in the House Agriculture Committee, where their tribulations with the Vermont Egg Farm became, over the next three years, wrapped into the state's effort to craft a Large Farm Operations (LFO) law.

"I can't tell you how many times we went to Montpelier and made depositions," said Britch. "We were striving so hard to try to get legislation to protect the investments of farmers, but farmers couldn't attend except sometimes by taking turns. The committees hold their sessions from nine in the morning until noon; by the time farmers get out of their barns and get to Montpelier, it's over with."

Britch never grew comfortable in the State House setting. It appeared to her and other CCFC members to run on a buddy system, with the DAFM, the Farm Bureau and many of the legislators on the inside, and the folks from Highgate outsiders. When they complained about the flies swarming their homes and barns, she said, one senator repeatedly asked, "Where's the DNA?" as if to belittle their assertion that the flies came from the egg farm.

In time the CCFC's efforts turned more toward influencing the design of Vermont's new LFO law, passed in 1996, than to solving their immediate problems. A lawsuit brought against the farm, and efforts by the DAFM, had brought some relief to the pest problem by 1999. The egg farm now trucks its manure to a composting facility in Middlebury once a week, and CCFC members report conditions have improved.

But having experienced the downside of proximity to a factory farm, they were keen to the stark differences in size and operations between LFOs and Vermont's traditional, smaller, family farms. Already the state was struggling to mitigate agricultural runoff into the small tributaries that meander through farmland and then carry bacteria and nutrients into the major rivers like the Lamoille, the Winooski, the Mississquoi and the Clyde. So-called non-point source pollution has become recognized as one of Vermont's most serious environmental problems. But an enormous concentration of animals on a small land base exacerbates the threat.

Such "large farms" — dairy operations with hundreds, even thousands, of cows — are increasing in Vermont. The DAFM estimates there are as many as 40 that meet the LFO definition (roughly 650 cows, though the LFO formula counts them in 1,000-pound "animal units"). One farm proposed in North Hero would host 3,000 cows. There are also calculations for poultry, swine, sheep and horses.

But while the 1996 LFO law set manure-management and water-quality standards, the issues of most concern to the Highgate folks were not addressed.

"So we stayed with it," said Patty Britch, "and in 1998 they [amended the law to] include noise, odor, traffic and flies and other pests."

It was a victory for the CCFC, but in many ways an unsatisfactory one. Laws can specify the Legislature's intent, but it's the rules — the standards and means by

which state agencies carry out the law that people live by. And the rules pertaining to noise, odor, traffic and pests, which were advocated by the DAFM and approved by the Legislative Committee on Administrative Rules, can only be described as odd.

"The LFO facility will not generate or breed flies, insects or other pests above a level where adult flies . . . moving off the farm premises are in excess of those from a well-managed, similar-sized farm of the same animal type," the rules say, in language that is repeated for traffic, odor and noise.

"What does that mean?" puzzled VNRC staff scientist Kim Kendall. "It really means that any determination will be made at the discretion of the commissioner of agriculture."

No one was more disappointed in the LFO rules than Highgate's Patty Britch. They ignored issues she had pressed, such as the impact of LFOs on the local economy, and requiring that LFOs have sufficient land bases for safe disposal of their own manure.

And they ignored public input. She had hoped that the rules would invite citizens to participate in the permitting process for LFO applications, but they closed the door instead. In some cases there may be public informational meetings, but the decision is left "solely with the commissioner," who is not required to respond to neighbors' concerns. There is no such thing as party status. And after the permit decision has been made, appeals can be brought only by the applicant and the commissioner.

That decision doesn't sit well with Britch and other members of the CCFC, like dairy farmer Guy Choiniere (see story, page 8). A third-generation farmer, Choiniere surveys the rolling hills around his Highgate spread and the narrow waterways whose beds lie deep within the fields that he and his neighbors use for grazing and cropland, and he finds the terrain environmentally inhospitable to the large farms that are coming to dominate the industry.

The inadequacy of the land to safely and economically support such farming enterprises, he believes, will make their success short-lived. Then, everyone will have lost.

The CCFC and the advocacy group Rural Vermont had proposed that a panel be convened to provide input from a broader range of sources when an LFO

permit application was under consideration.

"People are becoming aware that they need to be heard," says Choiniere. "If we sit back, we'll be run right out of our homesteads because of the impact the larger farms have."

A panel — particularly one that included neighbors of the proposed LFO — would have provided an opportunity for input from a vantage point closer to the action than the commissioner's office in Montpelier. "It would be a place where you could give an opinion and have it mean something," says Choiniere. "So far, our opinion's not worth a lot."

Britch says she will continue to work for a better LFO when the current law sunsets in 2000. "I agree that the agriculture department has to have a certain amount of control," she says. "But these rules don't provide citizens with anything. Instead of encouraging citizen participation, they discourage it. I should think the department would welcome our comments to make things better."

HAVEN IN FEDERAL LAW

Despite their frustrations, the Concerned Citizens of Franklin County proved once again that people armed with conviction can make a difference. Given the motivation and a persuasive cause, it can happen even without formal inroads for citizen action. For example, public outcry stopped Boise Cascade from spraying herbicides over its timber holdings in Essex County, a plan that had been too casually approved by the state Department of Agriculture. The public's objection led to a statewide moratorium on aerial spraying ordered by Gov. Howard Dean, and a permanent ban on the procedure in 1997.

Still, public input is easier when the law makes a place for it. And perhaps no law is as hospitable to citizen participation as the 1972 Clean Water Act, federal legislation that has proven to be one of the most successful environmental statutes ever written.

The beauty of the Clean Water Act (CWA) is that its purpose — "to restore and maintain the chemical, physical and biological integrity of the Nation's waters" — applies to every lake, river, stream, brook and wetland in the United States. No overburdened program administrator, no big-box retail developer eyeing an open field, no ski area planning radical expansion, no factory farm with inade-

quate manure-management practices, can say, "That river nearby isn't covered by the Clean Water Act."

Unfortunately, though, the act has yet to be effectively applied to all the waters of the nation, or of Vermont. To expand its effectiveness and focus the act's provisions upon the waters they care about, citizens can bear four things in mind.



- 1) States are required to compile and maintain comprehensive lists of their "impaired waters," and develop plans for restoring them to health; citizens have legal access to those lists, and can seek to have waters of concern added to them.
- 2) Citizens can use the act's anti-degradation provisions not only to keep marginal waterways from deteriorating further, but to protect the highest-quality waters, so that pollution, de-watering for snowmaking or agriculture, and other uses with negative effects are prevented from threatening healthy streams and rivers.
- 3) Citizens can fully participate in the process that awards or denies Clean Water Act permits (known as NPDES, or National Pollutant Discharge Elimination System, permits), and can even appeal decisions of the state agencies that administer the federal law.
- 4) Citizens can sue the EPA (Environmental Protection Agency) for violations of the act, or to get the federal agency to implement requirements of the act if states have ignored those requirements. "There are a lot of opportunities in the Clean Water Act for people to get involved," says Kendall, VNRC's staff scientist. "They can talk to the Agency (of Natural Resources) about the waters in their own back yard."

IMPAIRED WATERS

The state's impaired waters list ideally provides an inventory, updated every two years, of rivers, river segments and other waters that need restoration. In real life, limited financial and personnel resources at the Department of Environmental Conservation (DEC) prevent the program

from running perfectly, but the DEC gets help from several of the 30 or so citizens groups that monitor water quality in their local watersheds.

For its part, VNRC views the list as an opportunity to get the state to employ a remediation method known as TMDL (Total Maximum Daily Load). By cataloging the pollutants a river is exposed to (treated waste, phosphorous from various sources, etc.), and determining scientifically how much it can safely absorb (the TMDL), the state would have benchmarks for an effective reclamation plan.

VNRC staff attorney Job Heintz said the EPA requires states to determine TMDLs for impaired waters, but that Vermont's DEC thus far has not done so. VNRC, therefore, has filed notice with the department and the EPA that it intends to sue.

"There are 26 TMDL lawsuits out there, nationwide," said Heintz. "We've said, 'Look, you've never told us anything except that the waters on the list are impaired.' The point is to deal with the loads in the waters and clean those waters up. The 60-day notice, which is part of the process of filing suit, gives the agencies time to respond."

ANTI-DEGRADATION

A key principle in the Clean Water Act is that it essentially prohibits further degeneration of waters, even those that are already impaired. "Whatever level of water quality you have — such as Class A or Class B, as designated in Vermont by the Water Resources Board — you must not allow it to get worse," said Heintz.

The Clean Water Act provides what it calls a "three-tiered" approach to water-

"We've said, 'Look, you've never told us anything except that the waters on the list are impaired.' The point is to deal with the loads in the waters and clean those waters up."

— Job Heintz

quality protection. The first tier is "protecting existing uses." For this, the state establishes current or prospective non-polluting uses of the waterway, and sets a floor for water quality appropriate to that use, to ensure that even if the waters are already damaged their condition will not worsen. The second tier takes the same protective approach to "high-quality" waters.

The third tier — protecting "outstanding" waters — has enabled Vermont citizens to preserve some of the state's most ecologically significant and sensitive waters. Vermont statute recognizes this exalted CWA designation with its classification of "Outstanding Resource Waters" (ORW). Citizens can petition the Water Resources Board to have the classification attached to the most worthy stretches of river. Thirty signatures are all that is necessary to file the petition, and such actions have been successful in winning this exalted designation for Pikes Falls, in Jamaica, and portions of the Poultney and Battenkill rivers. Earlier this year, VNRC took the unprecedented step of petitioning the board for ORW status for the entire 71,000-acre Nulhegan River watershed (See article, page 29).

Citizens have used these anti-degradation provisions to good effect. For example, in 1989 the Stratton Area Citizens Committee persuaded the Water Resources Board to upgrade Kidder Brook's classification to Class A. That designation essentially prevented the Stratton Mountain ski area from proceeding with development plans that posed a danger to Kidder and its related tributaries.

Democracy, we are told, runs best when it's closest to home. This local-control truism notwithstanding, it is the federal law, the Clean Water Act, that most effectively enables citizens — and organizations of citizens, like VNRC — to protect their water resources.

The value of the act is even broader when you consider that many land-based acts of environmental abuse have equal, or greater, negative effects on ground and surface waters. Thus, when Sylvia Knight of Charlotte — a librarian at the University of Vermont who, in her spare time, has compiled invaluable resource material on herbicides and pesticides — monitors the use of chemicals on golf

courses, along roadways, and on railroad and utility rights-of-way, the Clean Water Act is the law most likely to come into play. She knows, for example, which chemicals require a 15-foot buffer between the railroad's application area and nearby parallel waters, and which (glyphosate, it turns out) are permitted within 10 feet of waters and wetlands. When citizens take action against improv-

er spraying, it is the Clean Water Act that empowers them.

But for all its virtues, the act doesn't run by itself. People need to know how to use it. As participation opportunities in Vermont's own conservation laws continue to come under attack, the citizen-friendly Clean Water Act becomes even more significant.

Has Act 250 Shaped Vermont

BY KATHY HENTCY

In 1970, in response to a boom in real estate development, legislators created Act 250. In Dover, for example, large scale housing development was proceeding at a rapid pace, carving the landscape into a series of small lots that were serviced by inadequate waste disposal facilities.

"That all came to a screeching halt when Act 250 was enacted," said Darby Bradley, president of the Vermont Land Trust and past chair of the Environmental Board — the body that administers Act 250.

Act 250 and its ten criteria that address types of development and resulting environmental impacts, has for nearly 30 years directed development in Vermont. But what has Act 250 meant for Vermont? Has this controversial law made a difference in how development has proceeded in Vermont?

"Vermont certainly would look different if there had not been Act 250," said Stephen Reynes, a lawyer with Wilson & White in Montpelier. Reynes, also a past

chair of the Environmental Board, represents Intrawest's Stratton Mountain as Intrawest embarks on a plan to expand its year-round resort facilities.

But while Reynes and Bradley may agree Act 250 has played a role in determining the landscape we see in Vermont today, the agreement stops there. Reynes,

apply here," he said. Reynes noted as well, however, that while the vast majority of projects reviewed under Act 250 are approved with minor restrictions or requirements, he thinks there are instances that the law gets out of hand.

"There are sometimes some good projects that get held up or jeopardized through what can be a lengthy and expensive process," he said.

Bradley said, however, that while Act 250 has meant that development in Vermont has proceeded "more slowly and more thoughtfully," it has not managed growth in a comprehensive manner based on long-term planning goals.

It couldn't do that, he noted — Act 250 was meant only as a response to a crisis situation.

"The assumption was that planning would follow, in order to provide a framework for the regulation," said Bradley. "But there has been a failure of the political will to follow-through on the planning portion," he adds.

It is in the nature of law to bring out such disparities in perspective. What one person sees as falling short of equitable



for example, says that Act 250 has a proactive, preventative power.

"If the project doesn't respect the natural resources, the developers don't even

treatment to stop undesirable behavior, another may view as verging on damaging over-regulation of economic growth. In the case of Act 250, how such differing opinions get worked out in the legislature could mean the difference to land-use development and planning regulation for the foreseeable future.

Both Reynes and Bradley note that Act 250 saved Vermont from the glut of condo building that took place in New Hampshire and elsewhere during the 1980s economic boom.

"Other states have a lot of condos that were built in the boom period that weren't really thought through well," Reynes said. "There was a combination of factors at work — there were too many units built, they were poorly built or poorly situated," he said. Then the economy went downhill, and people were left holding unwanted properties.

"Condos in central New Hampshire that had been selling for \$180,000 three years before were going for \$60,000," Bradley said. "A lot of banks went out of business in New Hampshire, but that did not happen in Vermont," where Act 250 had controlled development.

In addition to economic protection, Reynes says Act 250 has provided other essential protection as well.

"Act 250 provides excellent protection

to see that the natural resources are protected and to see that the neighbors and local municipality are respected," Reynes said. "Concerns or problems are worked out to soften or mitigate impacts, and people feel better about the project being implemented in the community," he said.

In addition, development over the past 30 years has tended to occur around existing development, Reynes said.

"That's not something that is set in stone, and certainly, for example, in Chittenden County, cities have spread out into farm fields," he said. "But if there had not been Act 250, that would have occurred much more."

Aesthetic values, which were first dealt with in the Quechee Lakes Case in 1986, have been protected as well, he said. "You would think aesthetics would be a different thing to grab hold of, but projects have been much more sensitively designed as a result of Act 250," said Reynes.

"There is no question that Act 250 has served this state well," Bradley said. "But Act 250 together with water quality standards and other laws have shaped Vermont, not Act 250 alone." And if Vermont is going to protect the open spaces it still has, planning is necessary.

"Planning today is better than it was, but the planning process is still too ambiguous," he said. "There is no clear or

very little guidance whether a development is appropriate in a given locality." An effective planning process would look at growth in an area over 20 years, and include expected increases in automobile traffic due to a major development such as a large retail center, for example.

"Vermonters have articulated in a number of ways a goal of village and countryside, maintaining that separation," Bradley said. But that sort of vision can't be obtained with Act 250 alone, which deals with each project as it comes up. "It's very difficult to know what you're getting down the road with the case-by-case approach," he said.

And because projects must be of a specific size or greater to require review under Act 250, there are untold cumulative impacts of all the small developments that aren't reviewed by the Environmental Board.

So while Reynes sees Act 250 as an effective law that has shaped Vermont for the better, needing some tweaking perhaps in order not to unnecessarily hold up good projects, Bradley sees a stop-gap measure that has been pressed into service where only planning can do the job.

"Act 250 is slowing the shaping of Vermont," not directing it, he said.

INTERVIEW

A discussion with Act 250 expert **DICK BROOKS**

INTERVIEW BY KATHY HENTCY

Richard Brooks is the founding Director of the Environmental Law Center and was the Executive Director of the Thames Valley Council for Community Action, Inc. Professor Brooks is the co-author of the environmental law book *Green Justice*, the author of a book on planning laws, *New Towns and Communal Values*, and the author of a forthcoming comprehensive book on Act 250. Professor Brooks teaches Torts, Air Pollution Law and Policy, Population Law,

Environmental Principles, and Vermont's Act 250. Richard Brooks has a B.A., M.A. University of Chicago, L.L.B., from Yale University and a Ph.D. from Brandeis University.

Act 250, Vermont's Land Use Development Law, was enacted in 1970 to protect the state from environmentally unsound development. The law reviews large development projects for conformance with ten criteria, including water

and air quality, soil erosion control, traffic impacts, burden on municipal and educational services, aesthetics, wildlife, agricultural and forest lands, cost of scattered development, public investments, and local and regional plans. Act 250's quasi-judicial process is designed to be run by citizens and provide broad public participation.

Towards Community Sustainability, is Professor Brooks' recent treatise on Act 250 and related environmental and land

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use laws. One of the six central principles guiding the treatise is the notion that a community, like the laws it may pass, can be understood only by the interpretation of its past, present and projected future. Act 250 has had a 30 year history of creating change in Vermont with the case law it creates in each decision it renders. Our conversation with Dr. Brooks will explore the effects of Act 250 on the Vermont community.

COURTNEY: One of the central themes of Act 250 that you discuss in your treatise is the that of "democratic management and citizen participation". Would you reflect on the significance of this theme in the case law Act 250 has generated over the years? How would amendments to Act 250's party status requirements and the appeals rights of parties effect these themes?

BROOKS: What I'm worried about would be the extent to which the process of participation in Act 250 is "legalized." As a matter of fact, I had some worry about even doing the treatise, because I felt it would be a further step in this process, in which there are some people that are very knowledgeable and who are doing the "work," and then there are the citizens who are reduced to passivity, or to ancillary roles like fund raising for the attorney in the case, which is very important, but is not fundamentally satisfying in its own right.

COURTNEY: What about all the pressure to have Act 250 appeals be on the record? What would that do to citizen participation?

BROOKS: That's dreadful. The whole notion of further legalizing the district commission is dreadful. That would be the worst thing in the world. First of all, it would really drastically legalize the process and exclude the kind of

informal participation that does in fact take place. It would be nice for lawyers.

COURTNEY: What are your thoughts on limiting citizens' participation as parties in the Act 250 process?

BROOKS: That's absurd. I find it very troubling that these proposals continue to surface. And they were proposed



Dick Brooks and Elizabeth Courtney meet to discuss Act 250.

just a couple of years ago. There was a whole series of hearings, and they withdrew it, rightfully they withdrew it - based on the large number of people who turned out and said "This is absurd!" I think that any effort to try to curb participation is a big mistake.

I did some research on this issue in the treatise. The original ideal, [according to] some of the people who structured Act 250 in the first place, was that they thought that the towns were going to be, in effect, the significant agents for citizen participation within Act 250. That is why the towns were given a special status (or standing) for that. It's an interesting idea that then the towns would in effect try to work out the conflicts that there might be between groups and then the town would step forward. [The town, then,] would be representing a harmony on town perspective on these matters.

That hasn't worked. And the reason it hasn't worked is because the towns don't function that effectively for doing that anymore. So consequently it's been for the public interest groups to step in and substitute for what existed before. That's happened all over the country, and it's happened very clearly in Vermont.

COURTNEY: You discuss in the introduction of your treatise, the fact that Act 250 is a "reactive" law in that its decision-makers, citizen board and commission members, react to a proposal for development and issue a decision which grants, conditions or denies a permit to construct. You go on to say that, "One of the conclusions of this book is that such a reactive law is not sufficient to support a sustainable environment." Could you describe for us some of the other "customs and laws" you refer to as those which are needed, in addition to Act 250, in order to achieve the sustainable development of Vermont?

BROOKS: The ultimate tool for handling cumulative impacts [and augmenting Act 250] is planning. And the reason for that is very simple: It is planning which looks at the long term effects of growth and development.

The only way to deal with such accumulation is through a planning process in which people are confronted with the accumulation; they can actually see it.

COURTNEY: Isn't this issue what the Growth Center Planning initiative was designed to address?

BROOKS: [We see this dynamic] at work in the difficulty of developing a growth center and then limiting the surrounding areas of the growth center. I call this the failure of the green belt in a way. There have been very few excep-

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tions [to this failure], and those have occurred where there has been very large scale land acquisition on the periphery of the growth center. Without that, there are just tremendous pressures, once you have a growth area, to have peripheral growth to the growth area.

[For that reason], the desire to have a growth center is frequently doomed to disappointment unless accompanying [the growth center] are extremely rigorous controls of various sorts for the outside area.

So what would have to happen is, those people who are deeply committed to this would have to work with the towns and surrounding areas to secure the kinds of controls that are necessary in those areas.

COURTNEY: Do you think these issues can be addressed with a rural Growth Areas designation and the scattered growth criteria such as we advocate for in the Killington appeal?

BROOKS: There's a lot of potential threatening peripheral growth there. Even if it were possible to decently plan a center within the Killington area, you can't do that without controlling the whole access road that comes from the turnpike through Woodstock and the other access roads as well. You know that as that area gets larger, the roll-by is greater, which means that the locations along those roads are very attractive.

COURTNEY: Yes, we have an incremental growth occurring outside of Act 250 jurisdiction that could arguably have more of an impact on the state than all of the projects that do trigger the act.

BROOKS: Absolutely.

COURTNEY: Without a well funded and actively implemented growth management act, what are our alternatives? In your conclusions in the planning chapter you state that "The lack of comprehensive planning and its implementation leave Vermont without a statewide comprehensive ecological vision and

without control of cumulative statewide impacts of growth". Is there a mechanism in Act 250 which could bridge the gap between individual commission's review of applications to assess the cumulative impacts of growth? If not would you suggest an approach?

BROOKS: I think it comes back down to political leadership. Without the wholesale political leadership, and [without the] wholesale political battles that have to be fought, as they are being fought off and on again in places like Oregon, [those very basic decisions won't be made] about whether to control growth or to just let it happen.

It's easy to think it through what [the process] would be; it's less easy to then build the coalition that would be necessary. But which groups would support it both statewide and within the area itself? How can they be best brought together? Where can they best be brought together?

Start there, rather than — and this is what I meant by 'reactive' — than letting the reaction to individual decisions stimulate the participation. Because by [doing that], you're not going to get what you want in terms of decisions.

COURTNEY: Sometimes it's hard to get people involved, unless they have something to react to.

BROOKS: That's right. And that's why for example, I would imagine that Killington and issues like that are so important to organizations that want to rally the public. Maybe the strategy should be a two-fold one. Maybe and I'm sure you've thought of this, use [Killington] to crystallize other political agendas, use that as a symbol.

COURTNEY: [In other words,] can one wrap the future of Vermont's mountains in the [concern over Killington's proposed expansion] and then build the coalition around that?

BROOKS: You're absolutely right. The first time we adopted the wetlands protection provisions in Connecticut, we

required there to be hearings. We had the hearings and nobody showed up. But we knew that once we had an enforcement this was going to hit the fan. So we identified for each wetland a property that was ripe for development and we published [that].

We had huge crowds — that got their attention.

Dramatically, think of the difference between Oregon and Vermont. It's partly a lifestyle thing, it's partly a culture thing. But there have been several showdowns over Oregon laws with major referenda. [The planning legislation has] been "at risk."

The strategy that's been adopted in Vermont is both good and bad. The good part is, that it's a more peaceful strategy building over time. [But, unlike in Oregon], there has never been the same kind of dramatic endorsement [of an environmental law] on a state-wide basis.

[In terms of Act 250, for example], all of the cases that come before the board are not [immediately] of state-wide [importance]. [So the public may react with] 'Okay, St. Albans is having trouble with this issue,' [for example]. Obviously, these cases have very direct state-wide implications, but they are not seen [as state-wide] the way the key votes have been in Oregon.

Part of the reason for that, obviously, is that when we lost the planning process in the 1970s, that ripped away the state-wide dialogue. So I think for that reason, what we're due for in Vermont is really perhaps some political turmoil over these issues. Political turmoil in which the issues are faced up to in a more direct way.

It may happen with mountain resort development, because in some ways the mountains may be the symbol of Vermont. By taking that on, one would be dramatizing the issue on a state-wide basis. Up to now, we haven't had that sort of issue.

Toppling Goliath

Initiatives for Fairer Tax Systems Build Across the Country

BY BRENDA HAUSAUER

Imagine a day when you can save \$40 a month by putting fewer trash bags out each week for garbage pickup. Or a time when you don't pay sales tax because the government collects the money instead from businesses that heavily pollute the air and water. Or imagine that property owners in your downtown center have a strong tax incentive to keep their historic buildings in good repair and full of tenants.

All of these taxation strategies are already realities in parts of the U.S. and Europe. And all have one thing in common: they begin to shift the burden of paying taxes toward activities that damage the environment or society.

Taxes tend to discourage the activities that are taxed, and that principle is behind a growing number of new initiatives around the country to reform our tax system. Tax shifting is about removing current taxes on socially beneficial or harmless activities, and placing taxes instead on socially and environmentally damaging activities. Like "sin taxes" on cigarettes, for example, tax shifting is based on the principle that taxes should be levied on activities that harm society, in order to discourage those activities. But tax shifting proposals also seek to reduce or eliminate current taxes on activities that cause no harm.

There are many types of tax shifting proposals, but most are designed around the same set of policy options. Most proposals seek to reduce property, sales, personal income, or payroll taxes, while increasing taxes on motor fuel use, energy use, solid waste, or other detrimental activities. For instance, sales taxes could

be reduced while energy taxes increase. Or, the portion of property taxes that funds road construction and maintenance could be eliminated, and replaced with a higher gasoline tax. The result: the government raises the same amount of money, but people use less energy, buy more efficient vehicles, or make their behavior more environmentally friendly.

And that's the elegance of tax shifting. It solves many problems at once.

Tax shifting is not a new idea, but it's new to many people. Alan Thein Durning, founder of Northwest Environment Watch and an environmental tax crusader, said in a recent *E Magazine* interview, "It looks to me like the biggest obstacle to tax shifting is the unfamiliarity of the idea. It's so novel. Politicians have a saying: 'The best tax is an old tax, because people are used to it.'" Most people simply don't question that property taxes will fund schools, and income taxes will fund the federal and state government. Add to that the fact that tax topics put most people to sleep, and that making a real change to our Goliath tax system is an enormous task — and it's easy to see why tax shifting could be a

hard sell.

But many believe tax shifting is an idea whose time has come. In the past several years, fair tax initiatives have started in more and more states. For example, tax shifting plans have been studied and proposed in several state legislatures. Bills in the Minnesota legislature have proposed sweeping tax reforms, including eliminating property taxes and replacing them with carbon taxes. The Michigan legislature has passed several tax incentives for positive activities, including partially exempting purchasers of efficient cars from the sales tax and completely exempting them from the state use tax. And the Oregon legislature considered several tax shifting bills in 1999, including one that would have established a task force to study the economic impact of shifting taxes from property and income taxes to pollution taxes. The bill unanimously passed the House Revenue Committee before it stalled, but backers say there was so much positive interest in the idea, the groundwork has been laid for successful implementation in the near future.

A growing number of groups are organizing to support fair tax initiatives as well. A national network of organizations, coordinated by non-profit Friends of the Earth, works actively on fair tax initiatives. Much of the tax shifting activity around the country is funded by the W. Alton Jones Foundation, which gave close to \$2 million in 1997 and 1998 toward fair tax initiatives.

In Maine, two organizations have worked together to develop consensus bills using input from a range of stakeholders. A bill that would assess a modest fee on all new vehicles and provide a



rebate to super-efficient vehicles will be considered in Maine's 2000 legislative session. In addition, two more bills may be considered: a capital gains tax on short-term, speculative land sales, with funds used to support affordable housing; and a tax on the use of polluting electricity sources, combined with a credit for electricity use generated with renewable sources. Christopher St. John, Executive Director of the Maine Center for Economic Policy, says, "In Maine, we've found that general appeals to do good things for the environment don't always capture people's enthusiasm. Targeted proposals that improve air or water quality get better results. The challenge in tax shifting is to successfully educate and inspire people to support a proposal about two difficult topics: taxes and the environment. In Maine, we're trying to create some modest quick wins that will build support for tax shifting."

Tax shifting initiatives in Vermont began as early as the 1970s, when VNRC worked with others to pass the Current Use program into legislation, a tax shift that decreased the property tax burden on owners of agricultural and forest land. Vermont undertook a modest tax shift in 1997 when a portion of the education tax burden was shifted from property taxes to a collection of broad-based taxes, including the gasoline tax and the motor vehicle purchase and use tax. In 1998, the Vermont Department of Public Service released "Fueling Vermont's Future," which recommended and modeled several energy-related tax shifts.

But tax reform in Vermont got its biggest boost when four organizations formed the Vermont Fair Tax Coalition in 1998 to focus reforms on the Vermont tax system (Friends of the Earth, Vermont Businesses for Social Responsibility Research and Education Foundation, VNRC, and the Vermont Public Interest Research Group). Since then, the Coalition has grown to include more than 30 organizations, businesses, and individual members.

Steve Holmes, Deputy Director for Policy at VNRC and a member of the Coalition, says the Coalition's philosophy has focused on tax shift initiatives

that benefit "the three E's": economy, environment, and equity. "Any tax shifting proposal we endorse must be designed to strengthen the economy, clean up the environment, and make the tax system fairer for low-income wage-earners — or we won't support it," he says.

The Coalition's first effort was to produce a 36-page report in March 1999, *Tax Reform that Agrees with Vermont*. The report proposes tax shifting options for Vermont, and inventories the state's current environmental taxes.

Members of the Coalition supported several tax shifting bills during the 1999 legislative session, including a Clean Car Initiative bill which would have levied fees on purchasers of inefficient vehicles and given rebates to purchasers of efficient vehicles. Two tax adjustments were successful in the 1999 session that move toward a more comprehensive tax shift: a sales tax exemption for photovoltaics, wind turbines, and fuel cells that will be incorporated into a consumer's net metering system to generate electricity, an adjustment that makes renewable energy options slightly more affordable; and a

sales tax exemption on clothing articles and shoes under \$110, an adjustment that makes the sales tax fairer for low-income wage-earners purchasing necessity items.

The Vermont Fair Tax Coalition continues to move forward with several exciting initiatives during late 1999 and early 2000. The Coalition is undertaking opinion research to determine which tax shifting policies Vermonters would support, in order to help guide the future work of the Coalition. A conference on tax shifting will be hosted by the Coalition in January 2000 (see sidebar). Research already has been undertaken by the Coalition in several areas, including transportation policies and technical analyses of tax shift proposals. The Coalition expects to build on this research to produce more publications in 2000 and beyond. Brian Dunkiel, staff attorney at Friends of the Earth and member of the Coalition, says the group will focus its efforts on pesticides, sprawl, and transportation in the future. "There's great potential to improve quality-of-life and natural resources with tax shifting policies, and they're good complements to regulatory control tools," he says.

And Vermonters may just be ready for tax shifting, according to Coalition members. Jane Campbell, Executive Director of Vermont Businesses for Social Responsibility and a Coalition member, says, "We've gotten a good response on tax shifting from the businesses that belong to our organization. When we explain tax shifting to business owners, they nod their heads and say it makes good sense." VNRC's Steve Holmes echoes that experience. He says, "As I travel around the state talking with people about tax shifting, the most frequent response I get when I explain the concept is, 'Yes, that makes sense.' There seems to be a genuine interest in Vermont for trying these kinds of changes. For example, I've gotten good feedback on the land value tax concept." The land value tax is a property tax that falls only or mostly on the value of the land, instead of on the value of buildings and improvements, a setup that can encourage compact development, decrease sprawl, and preserve open space.

Reforming the tax system may be a Herculean task, but Coalition members say the prognosis for suc-

COALITION TO HOST VERMONT TAX WORKSHOP

The Vermont Fair Tax Coalition will host a workshop about taxes and tax shifting on January 24, 2000 in Montpelier. Workshop participants will include legislators, representatives of non-profit groups, and other opinion leaders. The workshop will cover:

- The purpose of taxes
- What we get for our taxes
- Our current tax policy
- The tax shifting concept
- Tax shifting policy ideas
- Taxes related to sprawl, transportation, pesticides, land use, and more

David Morris, vice president of the Institute for Local Self-Reliance, columnist, and author of many papers on green taxes in Minnesota, will give the keynote address. Later, small-group discussions with participants will focus on taxes, and a panel discussion will focus on tax shifting. The workshop will wind up with a wine and cheese reception with conference participants and legislators.

The workshop will be held on January 24, 2000, from 1 p.m. to 7 p.m. at the Capitol Plaza in Montpelier. For more information about the workshop, contact VNRC at 223-2328.

cess in Vermont is good, and their commitment is long-term. VBSR's Jane Campbell says, "I attended a conference on tax shifting recently with other groups around the country, and I discovered that our Coalition in Vermont is so broad-based compared to groups in other states.

I think that gives us a very good chance of success in bringing about reform." For the next one-to-two years, the Vermont Fair Tax Coalition expects to focus on research and education. Vermont will perhaps see movement toward real tax reform during the next three-to-five years,

according to Steve Holmes. "None of these changes will happen overnight," he says, "but at VNRC, we feel tax shifting is important and we're committed for the long haul."

VERMONT PERSPECTIVE

THE LIFE OF THE *Lamoille River* PAST, PRESENT AND FUTURE

Peterson Station is the lowest of four hydropower plants that make up the Central Vermont Public Service Corporation's (CVPS) Lamoille River Project. The last built of the four, the Peterson Dam is a barrier to spawning fish swimming upriver from Lake Champlain. In January, VNRC, in partnership with Trout Unlimited and the National Wildlife Federation, will submit a series of studies to the Vermont Agency of Natural Resources regarding the operation of the dams and whether or not the Peterson Dam should be removed. The studies have been underway for the past year and have gathered important historical, economic, and scientific data about the Peterson Dam and the surrounding region of Milton, Vermont.

Over this past summer, efforts were made to expand public awareness on the issues surrounding the Peterson Dam and to increase the breadth of historical inquiry. VNRC understands that studying the history of the Lamoille River is important for many reasons. By linking what is known about the natural and human histories of this region, we learn how people have affected the water and landscape upon which they live, and why. We can then

better understand how economic vitality has changed over the years. It explains to what extent habitat and species diversity has been degraded. The lower Lamoille River faces many ecological problems today. An understanding of what caused these problems can lead us to find their solutions.

PUBLIC OUTREACH

Late this past summer, the Milton Conservation Commission invited VNRC to join the commission on a canoe ride down the Lamoille to discuss the impacts of hydropower development on the river and lake fishery. Representatives from the Town of Milton, Trout Unlimited (TU), and CVPS also attended. The event was well attended by the public and many dif-

ferent view points were offered as the group toured the Peterson Impoundment.

In October, CVPS, TU, the Milton town engineer, and VNRC staff scientist Kim Kendall were each invited to a symposium at Green Mountain College in Poughkeepsie, Vermont. The presentations by the panel members led to a lively, two hour discussion among students, professors, and members of the public about the issues of dam decommissioning.

VNRC's most memorable outreach effort to date was the Old-Fashioned Fish Fry held at the Milton Grange Hall in September. The Fish Fry was designed after Slim Buxton's fry and chowder tent, a West Milton establishment that stood on a bank of the Lamoille in the 1930s and 40s. Over 100 people came to the VNRC and Milton Historical Society partnered event. Historical Society Documents, maps and photos were displayed. Participants browsed and reminisced about times gone by. After the superb fish dinner (the fish was NOT from the Lamoille), folks gathered and shared their stories about boating and fishing in the river. One of the more



Woods Falls site — first stages of Peterson Dam construction.

amazing stories was that of Mr. Duel Ballard. Mr. Ballard spent parts of his childhood on the river and vividly remembers sturgeon rolling end over end down the Lamoille River over Woods Falls after spawning upstream in the spring. He remembers seeing these huge fish (lake sturgeon can weight more than 300 pounds, although it was rare to find them that large) right around apple blossom time. Peterson Dam now sits on top of Woods Falls.

HISTORICAL STUDY

The Lamoille has a fascinating history. Through library research, discovery of old photographs and letters, interviews with old timers, and outreach, a vivid picture has evolved of what the Lower Lamoille River was like prior to the dam's construction. Phenomenal change has occurred here since colonial settlers came to this northwestern region of Vermont in the late 1700s. Human interactions with the river have been extensive — logging, milling, farming, fishing, commerce, development — all have played a major role in shaping the geographic, demographic, and economic character of the region. The Lamoille's waters provided the necessary transport and power-production for these endeavors, thus forming the villages of West Milton, Milton, and others upstream.

Water travel was the most efficient means of moving goods and people in the early days, and at its genesis, West Milton was a port town. Because the river ran unimpeded to the lake from this point, West Milton became the center of commerce for the Milton Township. Up until the mid-1800s, many materials were brought in and used, or fashioned somehow in various mills, and then shipped to markets in Burlington and beyond by boat and barge.

Around 1850 the railroads came through Milton Village and put an end to West Milton's commercial prowess. Sheep ranching, and then dairy farming, took over as means of livelihood in the river village. Fishing, however, remained a way of life for some along this stretch of the Lamoille. The remarkable populations



Clifton Lamphere, from Milton, is pictured with a 164 lb. sturgeon caught in Lake Champlain at the mouth of the Lamoille River in 1948.

of Atlantic salmon had been gone from Lake Champlain and its tributaries since the 1840s, but other fish such as walleye, sturgeon and muskellunge were still plentiful. The Lamphere Family, many of whom still reside in Milton today, has Lamoille fishing roots that go back more than one hundred and fifty years.

Harry Costello is another fixture in West Milton fishing history. Harry grew up on the river. Shortly before 1900, he bought the old brick house on the east bank across the river from his parent's place. From the property Harry ran a boat building and rental shop. Between 1900 and the 1950s folks could rent a rowboat from Harry and spend the day fishing the river. Rentals cost around a

dollar and a half. Renowned runs of fish came through West Milton every spring, and after May 1st when walleye season opened it was common to see 80 boats around West Milton Bridge, especially on Sundays after church. Many of them were Harry's, and you were lucky to see one with a motor. Today, people reminisce about the river being so clogged with fish you could keep three lines going at once, and so jammed with fishermen that you could walk from one bank to the other and not wet your feet.

Construction of the Peterson Dam at the Woods Falls site, just upriver from West Milton, began in 1946 and was completed in 1948. For the first few years after its completion walleye and other fish still swarmed the river in the spring, but they could not get past the dam. The fish could be seen churning in the dam's tailrace. When the power station ended a production cycle and the water flow was shut off, hundreds of fish would be left to die after becoming trapped in shallow pools and on the rocks as the water level dropped. Game wardens would tell people "you want any fish, go get all you want, you don't have to pay for them." Only a few years passed before the spring fish run had declined significantly.

The fact that the fish populations crashed shortly after the Peterson Dam was built is no coincidence.

Because of its placement, the Peterson Dam applied a much more severe impact than the three dams already operating upriver. Even though it is five miles inland, Woods Falls marked the river's last drop before reaching lake level. The falls, conversely, was the first vertical challenge to any spawning fish. This was a surmountable obstacle for the fish, and it allowed them access to spawning grounds further upstream (a series of falls and rapids now underwater beneath the Peterson Impoundment), and allowed them to escape the threat of predatory species from the lake. These specific geographic characteristics, and the knowledge of how abundant fish once were, are why the river behind the Peterson Dam, a three mile stretch, is so important to restore.

SCIENTIFIC STUDY

This stretch of river has provided great prosperity to those who lived on its banks. Unfortunately, since the very first settlers came to this region, human endeavors have taken their toll on the Lamoille's ecological health. The forests flanking the river were cut down. Milling operations built dams. Fish populations were decimated through habitat loss, over-harvesting and pollution. These impacts have come and gone and varied over time, but have grown in magnitude. Major hydropower projects were built in earnest starting at the turn of the twentieth century. An immense amount of natural riverine habitat has been flooded since 1900; today the Lamoille River has eight dams on its main stem which impound some 400 million cubic feet of water.

As part of our scientific study, VNRC has documented both the degradation of the Peterson reach and violations of Vermont Water Quality Standards. One of the most serious problems is the depletion of dissolved oxygen in the water both above and below the dam. Fish and other aquatic organisms cannot live in water with low dissolved oxygen. Turbidity levels and *e. coli* counts have been found to reach levels exceeding State Water Quality Standards. Other studies have been performed to document the impact of reservoir drawdowns on the shore ecology of the impoundment, and to assess the potential habitat gain if the dam were removed.

VISION

Throughout the more than two-hundred years of industrial fervor in the United States, humans have cut, chopped, shipped, dug, dammed and fished our waterways and lands with the honest intent and belief that what we did was for the betterment of our neighbors and ourselves. But we can now see that often our economic growth has come at a large cost

to natural ecological systems. The Lamoille River is a splendid example of this occurrence. This river is not the clear, cold, free-flowing waterway it once was. Populations of fish, invertebrates, and aquatic plants in the lower river today pale in comparison to the abundance that was supported fifty years ago. Ask any fisherman or boater who has lived in the region

Peterson Dam construction in 1947.



for awhile. He or she will tell you that the Lamoille is not like it used to be.

The Peterson Dam issue is complex, and there are endless factors to be considered. The dam provides property tax revenue for Milton. The dam gives three thousand homes-worth of

"cheap" and "green" power to CVPS each year. But the damage caused to the surrounding ecosystem for that amount of power, a small blip on the CVPS grid, is difficult to swallow. The Lamoille River is a public resource. Milton is at the center of this argument, but the implications of what happens to the river reach far beyond the Milton town boundaries. This river drains over 700 square miles of northwestern Vermont. It is one of Lake Champlain's largest tributaries, and like it or not, the dams on the river, especially the Peterson, have had severe impacts on the ecology of the Lamoille and its connected waterways.

The fate of the Lamoille River Project for the next twenty-five to fifty years will be decided in the coming year. The opportunity to influence the future of the Lamoille is now. Can we balance human endeavor and the need for electric power with the requirements of the plants, fish, and animals that depend on a natural, healthy river system? Would you rather maintain a power station that squelched a once world class fishing run so you can turn on that extra light bulb? VNRC plans to fight very hard to restore the health of the lower Lamoille so this stretch of river can be beautiful and fish-filled once more.



Dam construction in an old sturgeon hole.

MORE GROWTH IN THE GREEN MOUNTAINS?

When is enough, enough?

KILLINGTON

On October 22, 1999 the Vermont Environmental Board issued a ruling on several preliminary matters in VNRC's June 1999 appeal of the Killington Master Plan decision. In its fourteen page decision, the Board agreed with VNRC that the Killington Master Plan is "ripe" for appeal of the findings and conclusions under criteria 9H (scattered growth) and 9L (rural growth areas) — two criteria of Act 250.

With this decision, the Environmental Board has the opportunity to decide a case which will have lasting policy implications for the Vermont countryside, the health of its rural communities and vitality of its diverse local businesses. If fully built, the Killington project would create a city hosting 30,000 people and include 1,350 new hotel rooms, 2,015 hotel suites, 825 town houses, 80 single family homes, 230,000 square feet of commercial space and 118,000 square feet of indoor recreational and public gathering facilities.

The Environmental Board will define, through its review of criteria 9L and 9H, many of the primary characteristics of this rural state. The Board will decide whether developments such as the one proposed at Killington follow "new community plans" or whether they simply constitute high altitude sprawl. New community planning incorporates principles providing for compact settlement, appropriate growth rates, and population densities and the protection of natural resources. Even more signifi-

cant is the Board's ability to determine what amounts and what patterns of development are appropriate for this rural area of the Green Mountains.

In its review, the Board will first determine whether the Killington proposal is located in a "rural growth area". In the statute, "rural growth area" is defined only in the negative, as those lands which are not natural resources referred to in Act 250, such as headwaters, floodways, streams, shorelines, wildlife habitats, pri-

mary agricultural soils, secondary forest soils, earth resources or public investments. VNRC's position is that the rural growth area includes only existing developed areas and parking lots at Killington.

We can surmise from this definition that the Legislature was confident that these natural resources would be protected from development under their respective criteria. But the creation of the "rural growth areas" criterion suggests that the Legislature recognized that the lands adjacent to these resources, which were developable, would need protections so as to "economize on land usage" and protect the rural character of the region, while accommodating reasonable growth.

Amazingly, in the thirty years of Act 250 case law, only two Environmental Board decisions have addressed the "rural growth areas" criterion. Even those two cases, New England Ventures and Fair Haven Housing, still leave many aspects of this neglected Act 250 criterion undefined, since they explore only a limited range of the criterion's issues.

STRATTON

On October 1, 1999, the District 2 Environmental Commission (DEC) issued its decision on the Stratton Master Plan. Stratton Mountain's \$123.8 million "Community Plan" includes 724 "hotel-like" units, 574 condominium units, 21 single family homes and 30,000 square feet of commercial space. This proposed project would be in addition to an



existing 81,000 square feet of commercial space, four hotels, 700-plus condominiums and 281 single family homes.

On October 28, 1999, Stratton Area Concerned Citizens (SACC), the applicant (Stratton Corporation) and VNRC moved for the DEC to reconsider certain aspects of the decision. VNRC's request for reconsideration to the DEC raises an additional issue for which the Killington case is not yet ripe. This is the issue of the Water Quality Remediation Plan. During the DEC hearings in this case, evidence was presented by VNRC and the Agency of Natural Resources (ANR) that several streams at Stratton were polluted and as a consequence, were placed by the ANR on the "Impaired Waters List", as required by the Environmental Protection Agency.

It is VNRC's position that an Act 250 permit cannot be issued unless the applicant's project meets all state and federal regulations pertaining to water quality. Since the applicant in this case is already out of compliance with the Federal Clean Water Act, VNRC argued that the waters must be cleaned up before a permit can

be issued.

In response to VNRC's argument, the Stratton Corporation and the ANR developed a Water Quality Remediation Plan which has been incorporated into the Master Plan findings. The Plan outlines a process for the mountain to restore water quality to the streams at Stratton. But, having a plan for restored water quality is different than actually guaranteeing that the quality of the water will be cleaned up. VNRC's request for reconsideration is seeking clear language in the conclusions of the DEC's decision that no permit will be issued until the water quality of the mountain streams is demonstrably improved.

STOWE

The Stowe Master Planning process is just getting underway at the DEC level. The first hearing was December 6, 1999. The recently revised Master Plan calls for 486 condominium and hotel units at Spruce Peak, over 57,000 square feet of retail space, a new Spruce Base Lodge and 20,000 square foot health club, an 18

hole golf course, and 115 hotel units and 30 residential subdivision lots.

At this time the Commission has granted party status to VNRC, Conservation Law Foundation, RIPPLE, (a Stowe based conservation group), and Vermont Public Interest Research Group under a variety of criteria including water quality, wildlife habitat, traffic, aesthetics and growth issues.

Consistent with our positions in Killington and Stratton, VNRC is advocating for clean water, reasonable rates of growth and reasonable population densities. The Stowe Mountain Master Plan presents additional issues including the presence of black bear habitat in the proposed golf course area. VNRC is also concerned that the public investments made in the Mount Mansfield State Forest, the Long Trail, the Smuggler's Notch State Campground and the Smuggler's Notch Scenic Highway Corridor (Route 108) will be eroded by the Stowe Mountain Master Plan development and that the public's use and enjoyment of these public resources will be diminished.

PREVIEW OF TOP LEGISLATIVE ISSUES

Watch for full Legislative Platform in VNRC's January "Bulletin"

ACT 250

Act 250 should be strengthened in several areas. Citizens who may be affected by decisions of the Vermont Environmental Board currently have no way to appeal to court the way other parties such as the applicant, town, state, and regional planning commission do. Citizens should be granted the same rights of appeal as other parties: to the Vermont Supreme Court.

Legislators should be wary of attempts to weaken citizen participation in Act 250. Research shows there is no problem with citizen appeals. Rather, citizen involvement has helped to improve project review and permit decisions. Restricting appeal rights, limiting party

status, and making the process more legalistic and cumbersome through appeals "on the record" will unnecessarily and unreasonably hurt citizen participation.

Act 250 administrators are limited to making fragmented, project-by-project decisions based on piecemeal, often incomplete, information. They need to be able to conduct comprehensive review of the cumulative impacts of these large-scale developments, including the review of nearby development projects which are being constructed at nearly the same time. Similarly, Act 250 does not consistently require that master plans be submitted for large-scale, multi-year, phased developments like ski area expansion.

Increased traffic is often one of the

major impacts of new development, yet Act 250 does not provide for a project to be denied, only conditioned, when there are serious traffic concerns. The law should be strengthened to allow Criterion 5, Traffic, to become one of the grounds, along with most of the other criteria, for denial of a project.

CITIZEN ENFORCEMENT OF ENVIRONMENTAL LAWS

The federal government and many states have laws allowing citizens to take polluters to court. VNRC supports changes in Vermont law to enable citizens to sue for enforcement of environmental protection laws.



The Vermont Egg Farm of Highgate which currently houses 100,000 chickens.

SPRAWL / MANAGING GROWTH

To counter sprawl, the legislature should help create growth centers in which development is supported and state funding for infrastructure is targeted. This should be coupled with the permanent protection of land and the curtailing of state infrastructure investment outside growth centers. Maryland's "Smart Growth" program discourages state investment in infrastructure such as road improvements, public buildings, water and sewer systems outside properly designated growth centers.

Changes to on-site sewage disposal policy, including potential use of alternative sewage treatment technologies, must consider the land use impacts associated with more flexible septic system design standards.

The 10-acre loophole in state subdivision regulations should be closed.

MUNICIPAL AND REGIONAL PLANNING FUND & HOUSING AND CONSERVATION TRUST FUND

Restoration of full funding and continued dedication of the property transfer tax to these two funds are critical if the goals of effective local and regional land use planning and preservation of affordable housing and open land are to be fully achieved.

TAX SHIFTING TO BENEFIT THE ENVIRONMENT AND THE ECONOMY

Have you ever wondered what our society would be like if taxes were actually lowered on things we wanted — like our paychecks — and raised on things that we didn't want — like waste and pollution?

How would you feel about a tax credit to businesses coupled with a tax rebate to all Vermont households in exchange for a tax on carbon-based fuels that cause air pollution?

These are among the questions that VNRC, along with other members of the Vermont Tax Shifting Coalition (Vermont Businesses for Social Responsibility, Friends of the Earth, and Vermont Public Interest Research Group and about 30 new members who have joined in recent months), are asking the Legislature to look into in the 2000 legislative session. The Coalition believes that tax shifts can be designed to strengthen the economy, clean up the environment, and make our tax system fairer for low-income Vermonters.

Here are some alternatives the legislature could explore:

- To reduce air pollution, and encourage more efficient vehicles and car-pooling, investigate increasing the gas tax while decreasing the sales or property tax. Or instead of reducing another tax, the increased gas tax revenue could be used to support public transportation such as rail, increased car and van-pooling, increased funding for affordable housing and for protection of farms and forests.
- To enhance any downtown initiatives and help curb sprawl, consider the concept of land value taxation that would enable communities to increase taxes on land values in their downtown centers while decreasing taxes on downtown building values if they choose.

- Consider increasing the land gains tax for land most threatened by sprawl.
- Appoint a study committee to investigate use of revenue-neutral tax shifting options to benefit the environment and the economy.

WATER RESOURCES

Addressing problems of polluted stormwater runoff, insufficient stream flow, habitat deterioration and loss of biodiversity should be priorities for Vermont.

Pollutants in urban runoff include heavy metals, petroleum products, pesticides, fertilizers, sediment and salt. The legislature is urged to support stormwater legislation that addresses urban runoff.

Most commercial users of public waters, including hydro-electric and snow-making operations, pay nothing for the privilege of sucking water out of our rivers and streams. VNRC supports assessment of reasonable fees for these uses and would like to see unlicensed in-state hydro power facilities comply with the Vermont Water Quality Standards.

FOREST RESOURCES

The 2000 legislature is urged to stand behind the "heavy cutting" law passed in 1997. Supported by a wide ranging coalition of interest groups, Act 15 provides a tool the state can use to control the kind of practices that have left great patches of Vermont's forest scarred and depleted.

The law requires the Commissioner of Forests, Parks, and Recreation to adopt rules that will provide for protection of soil productivity, water quality, wetlands, riparian zones, wildlife habitat, unique or fragile natural areas, forest regeneration,

scenic quality and unusual environmental events. The legislature should ensure that the rules clearly follow legislative intent and protect Vermont's forest resources.

AIR DEPOSITION OF MERCURY AND ACID RAIN

Mercury and the pollutants that cause acid rain are carried to Vermont by the prevailing winds from the midwest and from urban areas, and industries and trash incinerators in the northeast. As a result, we must limit our consumption of fish because of high mercury concentrations, and declines in forest health from the effects of acid rain have been documented.

The legislature can resolve to support appropriate actions to reduce airborne mercury and acid rain pollution on a regional scale through collaboratives like the New England Governors and

Canadian Premiers Action Plan.

The legislature could also require and fund the Agency of Natural Resources to complete clean-up plans known as Total Maximum Daily Loads (TMDLs) of pollution quicker than the scheduled 2008 target date. TMDLs are enforceable requirements under the federal Clean Water Act that would allow us to clean up sources of mercury and other pollutants in our watersheds.

ENERGY

As the nation moves toward market competition through electric utility industry restructuring, it is important that we not lose some of the important benefits of the current regulated system, such as environmental protection, demand side management, development of renewable energy resources, consumer protection, and

low-income assistance. At a minimum, any bill on electric utility competition considered by the Legislature should incorporate these issues.

TRANSPORTATION

Rather than proceeding with expensive and potentially sprawl-inducing new highway projects like the Chittenden County Circumferential Highway and the Bennington Bypass, the state should be evaluating alternatives that emphasize the use of public transportation, utilize the existing road network more efficiently, and create innovative land use strategies for directing development to transit-oriented growth centers and downtowns. The state also needs to implement an effective highway exit access policy that protects Vermont's scenic quality and discourages strip development and sprawl.

Nulhegan

ORW/RECLASSIFICATION UPDATE

On September 14, 1999, the Vermont Natural Resources Council, the Vermont Chapter of the Sierra Club, the Vermont office of the Audubon Society, and the Northeast Kingdom Chapter of the Audubon Society, along with 142 individual petitioners, withdrew their petitions to

designate the Nulhegan watershed as Outstanding Resource Waters and to reclassify the Nulhegan waters from Class B to A. The decision to withdraw was reached with the Vermont Agency of Natural Resources (ANR) when the ANR committed to conducting critical water quality assessments in the fall of 2000 for

the Nulhegan Basin.

During the summer and fall of 2000, the Agency will complete an assessment of existing and new data relating to the chemical, physical, and biological conditions of the Nulhegan Waters. The assessment will include establishing and collecting data from at least ten new reference

stations focusing on biological conditions (including macroinvertebrate and fish populations).

"The ANR's commitment to conduct imperative macroinvertebrate sampling and analysis throughout the Nulhegan watershed serves to heighten awareness of the antidegradation component of the Vermont Water Quality Standards," said Job Heintz, Staff Attorney for VNRC. "Once this analysis is completed, we believe the data will clearly demonstrate the exceptional ecological quality of the waters in the Basin, and lend support to our citizen initiative."

In exchange for the ANR's commitment to complete its water quality assessment, the petitioners voluntarily withdrew from the contested case proceeding, and agreed to withdraw their request for reclassification of the Waters until the additional data compilation is completed.

"This agreement reflects our mutual interest in protecting the least developed watershed in Vermont. We are pleased to be moving toward a less adversarial process for protecting the exceptional water quality of the Nulhegan, at a time when all Vermonter's should be celebrating the mosaic of reserves and working forest on the former Champion Lands," said Elizabeth Courtney, VNRC's Executive Director.

"Once the data has been collected, we believe that it will show what we have been advocating for the last year: that the Nulhegan Waters are exceptional, and should be protected and maintained. This is precisely what our citizen petitions were based upon," Courtney concluded.

The ANR's water quality assessment activities for the Nulhegan Waters will include:

- Compiling information concerning the water-based uses (swimming, fishing, boating, etc.), and any impacts to these activities;
- Collecting data from existing macroinvertebrate reference stations, existing temperature stations, and other existing data collection stations relating to the chemical, physical, and biological conditions;
- Establishing and collecting data from at least 10 new stations to assess the biological conditions, including both macroinvertebrate and fish populations. Input received from the Petitioners or



other members of the public concerning appropriate locations for new stations will be considered by the ANR.

The Nulhegan Basin is an ecologically exceptional watershed in the heart of the Champion Lands — one of the few remaining places in Vermont with scant development and free-flowing rivers. Historically, the Nulhegan Basin has been a great contributor to the wood basket of Vermont, and the call for sustainable forestry was answered when Essex Timber Company purchased roughly half of the Nulhegan Basin on August 6, 1999. The combination of federal refuge, working forest and protected waters will truly move the Northern Forest debate from principles to practice, and set the definitive example of future management in the region.

NULHEGAN INITIATIVE:

There has been a tremendous amount of progress towards sustainable forest management in the Northern Forest over the past year. Millions of acres have changed hands, and hundreds of thousands of acres are now restricted from development by conservation easements. The central focus has been on "making the deals." VNRC spent months in the 1998/99 legislative session lobbying to loosen the state purse strings for acquisition of the public access easement on the

133,000 acre portion of the Champion International Corporation lands in the Northern Forest. In July, after VNRC and the conservation community spoke loud and clear in public comments and hearings, the United States Fish and Wildlife Service purchased the core 26,000 acres in the ecologically rich Nulhegan Basin. Finally, in early August, the Essex Timber Company purchased 84,000 acres with some of the most progressive conservation easements ever written. In less than a year, the Champion Lands were protected in the very manner suggested in *The Great Northern Forest* publication by the Wilderness Society, National Audubon, and Sierra Club, where a major portion of wildland area becomes publicly owned to remain in its natural condition; where forest management in outlying sections of these wildlands must meet stringent ecological guidelines; and where future human development and large scale commercial forestry are excluded.

If the Vermont Champion Lands deal is so progressive, the question begging an answer is "why the Nulhegan initiative?" The application of water law to effect land management is an exciting shift toward a more holistic, ecosystem-based perspective, and the Nulhegan watershed is the perfect place to team up with the new land owners and the ANR to define the future paradigm for the Northern Forest. The potential power of the Outstanding Resource Waters (ORW) designation to promote conservation and direct the debate over land use and liquidation of large tracts of Northern Forest is compelling. While there now exists a complementary pattern of ownership and uses in the Nulhegan, this perfect scenario will not unfold as it has here in Vermont throughout the Northern Forest. We have before us an opportunity to work together to promote sustainable forestry in a manner which has never been attempted on such a grand scale. We have a protected core area, a progressive landowner ringing the core, and citizen petitions to avoid degradation of the remarkable water resources in the Basin. The opportunity to prove to the nation that sustainable forestry can occur in a protected watershed is upon us.

If ORW designation is granted for the watershed, the Clean Water Act requires

that the water quality "shall be protected and maintained." While VNRC is assured that the new owners of the working forest lands will sustainably manage the resource, we are also optimistic that Essex Timber Co. will see the added value of proving that forestry activities can take place in a protected watershed. The educational and market opportunities herein are extremely exciting.

This antidegradation provision is exportable. Successful ORW designations

will provide the basis for increased scrutiny of logging, road building and other activities that might affect water quality. This is ever more important in landscapes where the ownership pattern is not sustainably focused. VNRC's approach is also applicable to waters on Federal lands. Our success with this petition is an integral step in the watershed-based approach to conservation and land protection.

VNRC's Northern Forest Protection Program has been central to the commu-

nity building and implementation of long term goals for forest management that maintains the ability of our land and water ecosystems to meet the needs of the present without compromising the long-term ecological integrity of the forest. Our Nulhegan Initiative clearly represents this goal, and provides an opportunity for pushing the boundaries of the ecological standards for ecosystem protection and restoration in the Northern Forest.

VNRC NEWS & NOTES

TRACKING WORKSHOP WITH SUE MORSE OF KEEPING TRACK

Come and look for signs of bear, bobcat, moose and other forest creatures with nationally recognized wildlife habitat and tracking expert Sue Morse. If you have always wanted to attend one of Sue's workshops, or you are interested in learning more about animal signs, this is a perfect opportunity. This year, we will offer both a full day and half day session. Workshops fill up fast so please pre-register.

**Friday, February 25, 1999,
9:00 to 4:00**

Richmond: Be prepared to be outside all day hiking over some steep trails. Please dress accordingly: warm clothes, good boots, and extra clothes. **PLEASE BRING LUNCH,** water, and snowshoes if there is snow. Fee: \$15.00

**Monday, March 6, 1999,
12:00 to 4:00**

Richmond: A gentler version of the above workshop. This one will only last for half the day, and will be on mostly flat trails. Be prepared for cold weather with warm clothes, good boots and a drink. Please bring snowshoes if there is snow. Fee: \$10.00

Workshops are sponsored by the Vermont Natural Resources Council and the Vermont Woodland Association.

JOIN US FOR THE ANNUAL VNRC OPEN HOUSE!

Please join us for our annual open house on Friday, January 28, from 7:00 a.m. to 9:00 a.m. The open house is an informal opportunity to meet with VNRC's staff, tour our newly renovated building, and discuss the issues in our 2000 Legislative Platform. A light breakfast and coffee will be served. For more information, please call VNRC at 223-2328.

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VNRC Facelift

The much needed renovations to VNRC's offices are complete and the final product is one that will serve VNRC well in the coming years. The stately granite foundation and sunny southern exposure convey both a welcome to the historic Capitol Complex and the message that VNRC is here to stay. This is quite a change from the crumbling garage, leaking basement and peeling paint that filled that same space just 6 months ago. In fact, after residing here for over a decade, VNRC was long overdue for basic maintenance, out of compliance with the Americans with Disabilities Act and lacking enough space for our growing staff and volunteers. At the crossroads of needing to move to a larger building or invest in our existing building, we chose the latter. A strong stock market, the ideal location near the State House and the lack of suitable alternatives helped guide our decision to invest in 9 Bailey Avenue.

Ghandi once said, "be the change that you expect." Simple words that can be hard to accomplish. For VNRC those words meant a commitment to staying in the downtown, using sustainably harvested lumber, minimizing run-off and many other techniques to minimize our impact on Vermont's natural resources.

To ensure that the final product met the staff's needs and achieved our goals for a 'green' building, VNRC worked closely with the general contractors. If it weren't for the immeasurable patience and commitment to our happiness with the project demonstrated by Robin Snyder, the Project Supervisor, and all of the staff at Stewart Construction, the renovations might not have been such a success.

CERTIFIED LUMBER

One of the first challenges was to locate a source of certified framing lumber. Certified lumber comes from forests that have been inspected by organizations like

the Forest Stewardship Council whose goal is to "promote environmentally responsible, socially beneficial and economically viable management of the world's forests by establishing a set of recognized principals". After numerous phone calls, a supply was located from Seven Islands in



Maine, one of the first and largest companies to become certified. This lumber was used to frame the new VNRC construction. Surplus certified flooring from Middlebury College was used in the new offices to provide beautiful wood floors. The flooring was harvested in Addison County by Vermont Family Forests a coalition of small woodland owners who have joined together to become certified. Scrap from the floors was used to make lattice on the front of the building and backsplash around the sinks. When supplies of certified products were not available, we purchased from local mills that buy from local sources. For instance, instead of pressure treated lumber (a product that would be considered hazardous waste if it weren't for a hard fought exemption from the law by industry lobbyists) we used tamarack. This deciduous conifer grows throughout Northern Vermont and is naturally resistant to rot. VNRC is confident that our new ramp will stand up to the test of time.

AIR QUALITY

Indoor air quality was an issue of paramount concern. There are two compo-

nents to consider: release of fumes from the application of various finishes during construction; and the heating and cooling systems in the building. With traditional petroleum-based products there is often a strong odor from the application of various finishes and materials such as paints, primers, floor sealers, carpets, or insulation which release Volatile Organic Compounds, or VOC's, as they dry and cure. VOC's contribute to smog and poor indoor air quality. Once a VOC is released, it may react with other compounds to create new chemicals which may be worse than the original product. Many people react strongly to such airborne irritants with everything from headaches to more serious or chronic problems. The ICI Lifemaster 2000 paint we used is the only paint that is independently certified as VOC-free. Where possible, we also left the architectural features revealed (the original granite foundation is now an interior wall, and the basement floor was sealed and polished instead of carpeted) to avoid covering and painting more surfaces than necessary.

The second air quality issue dealt with the heating and cooling systems. In Vermont, Mother Nature takes care of most of our cooling needs, but VNRC's heating system was terribly out of date. We were able to replace the old forced hot air system with a super-efficient and healthier hydronic system. The new system allows heat to be drawn only to the areas of the building that need it. Radiant heat was installed in the floors on the two lower floors to maintain the historical look and maximize wall space. To accommodate the cooling needs in the building we selected windows that open for cooling, shades to block glare from the sun and glazed insulated windows to limit the heat from the sun.

REUSING MATERIALS

Throughout the project, we tried to maintain the original character of the building by reusing materials wherever possible (sometimes to the dismay of our

contractors who recognize the extra hassle involved with reusing warped or delicate older materials). However, with some persistence, the final product was well worth the extra effort. We reused a variety of materials from doors and door moldings, globes of light fixtures (with modern energy efficient compact fluorescent bulbs), the sink, cabinets and even windows. The windows were reused on interior walls to provide natural daylighting for interior rooms. Materials were reused from other job sites as well, the garden border was discarded curbing from the city, and the cabinets were from another one of Stewart Construction's jobs.

ENERGY EFFICIENCY

We enlisted the help of the Vermont Energy Investment Corporation to conduct an energy audit and identify areas for improved energy efficiency and cost savings in our 1920s house. Out-dated light fixtures were a serious loss of efficiency. We installed new compact fluorescent lighting throughout the building. We also par-

ticipated in Green Mountain Power's incentive/rebate program to help reduce the cost of replacing fixtures. Insulating the walls was another reality we needed to address. Hurricane Floyd drove demand for fiberglass insulation so high that the no-formaldehyde alternative we originally specified was taken out of production. Instead we used blown cellulose (recycled newspaper) which worked just as well and actually had a higher R-value (better insulation qualities) than the first choice. With the great southern exposure of the new construction, we hope to raise funds to install solar panels in the future to help meet our energy needs.

EXTERIOR FEATURES

Even on a small site like ours water quality was an issue. Heavy rains during the summer eroded the exposed soils from around the garage. To help prevent top soil from washing into the storm drains and ultimately into the nearby Winooski River we installed silt fencing and placed straw bales on the steep surfaces. For the

long term to help minimize impervious surfaces and run-off, we installed turfblock driveway pavers. These decorative concrete blocks create a lattice pattern that allows grass to grow in the middle and water to be absorbed while also providing a durable driveway material for cars. For the few garden areas around the building we selected low-maintenance native plants that are adapted to living in Vermont's harsh climate.

It is our hope that the choices we made on this project will contribute to the growing demand for alternative products and low impact techniques to minimize our impact on limited natural resources. Many of these products cost the same as traditional or perhaps a little more up front. However, if you consider the hidden costs of a products contribution to ozone depletion, for example, or savings from increased energy efficiency, the difference becomes negligible.

Please stop by the office any weekday and take a look — especially if you are considering your own renovations. Below is a partial list of some of the resources that were useful for research during this project.

RESOURCE LIST

Environmental Building News

122 Birge Street, Brattleboro, VT 05301
802-257-7300
www.ebuild.com

Vermont Energy Investment Corporation

255 S. Champlain St., Burlington, VT 05401
802-658-6060

Vermont Family Forest

David Brynn
VT Dept. of Forest Parks and Recreation
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The Clean Water Act: An Owner's Manual

BY DON ELDER, GAYLE KILLAM, PAUL KOBERSTEIN

Every year VNRC receives desperate phone calls from citizens around Vermont and the nation who are outraged by plans for huge developments or logging operations in their community and don't know where to turn. VNRC often lacks the resources to get involved, but in each case tries to provide citizens with as much assistance as possible. River Network has put together an exceptional tool for the proverbial 'tool-box' to help citizens understand how to use the current laws to protect watersheds. VNRC will hand out *The Clean Water Act: An Owner's Manual* to countless groups and individuals to help protect watersheds across Vermont and the nation.

The Clean Water Act is a powerful piece of legislation that can be very effective if you know how to use it. Passed into law in 1972, the Clean Water Act is long, complicated and requires patience and perseverance to read. Over the years, much of the responsibility for administering and enforcing the law has been turned over to state and local authorities. Overburdened and underfunded, states frequently lack the resources to adequately enforce the law. Citizen involvement is critical, as state and local authorities often rely on reports from citizens about activities in their watershed to identify violations.

The Owner's Manual can be used by individuals as a guide to the components of citizen participation in the Clean Water Act. It covers such topics as: the National Pollution Discharge Elimination System, antidegradation, Total Maximum Daily Loads and funding for non-point source control. The material is easy to read, easy to follow and very useful. Each chapter contains references to specific language in the Clean Water Act, relevant historical



background, reference to other materials for more information, suggestions for direct actions, and interesting case studies.

In addition to the Clean Water Act, Chapter 6 reviews other laws which help

protect watersheds (a handy list of acronyms is also included at the end of the chapter). Chapter 7 attempts to bring all the tools together and move the discussion from theory to practice by providing a "recipe" for dealing with specific problems facing watersheds: from agricultural runoff to poor forestry practices, and sprawl to loss of instream flows. This format is helpful for activists looking for strategic problem solving techniques, creative ways to address the issues and ideas about sources of information.

Full of useful references, ideas, web sites, and more *The Clean Water Act: An Owner's Manual* belongs on the shelf of every activist. Call VNRC to order your copy!

(Excerpt from *The Clean Water Act: An Owner's Manual*)

KEY CONCEPTS AT A GLANCE

*30 Basic Principles that Every Citizen
Interested in Clean Water Should Know*

- 1) *Reliable and accurate information* about your watershed helps you use the Clean Water Act and all the other tools at your disposal. Much of the information you need has already been generated as a direct result of requirements of the Clean Water Act.
- 2) "Point source discharges" of pollutants to waters of the United States without permits are illegal. (A point source is any discharge of pollutants from a "discrete conveyance" such as a pipe.)
- 3) *National Pollutant Discharge Elimination System permits* must impose discharge limits based on minimum performance standards or the quality of the receiving water—whichever type is more stringent in a given situation.
- 4) *Minimum performance standards* (called technology-based standards) are established by the EPA. They set minimum pollution control requirements for various categories of discharges, such as municipal sewage treatment plants, and some industries.

- 5) *Water quality-based permit discharge limits* are established by the EPA or an agency to which the EPA has delegated authority. They must establish limits sufficient to protect the human and ecological "uses" of that particular water.
- 6) *Permit violators* are subject to fines of up to \$25,000 per day—and even more in the case of repeated, negligent, or known violations.
- 7) If agencies fail to take appropriate *enforcement action* when permits are violated, individuals or public interest groups may sue violators directly to bring CWA compliance.
- 8) *Public involvement* during a permit comment period is critical. By providing information on the receiving waters, the public improves the effectiveness of permits.
- 9) *Water quality standards* established by states, districts, territories and tribes consist of three basic components: designated uses, water quality criteria, and antidegradation requirements.
- 10) A state's *designated uses* should include existing and desired uses of water that require good to excellent water quality.
- 11) *Water quality criteria establish standards* for each designated use. They should consist of "numeric" and "narrative" descriptions of the chemical, physical, and biological water quality conditions necessary to support each of the designated uses.
- 12) *Water quality criteria may be site-specific.* Citizens must make sure that the criteria for their watershed adequately protect designated and existing uses.
- 13) The Clean Water Act's *antidegradation requirements* offer broad protection. Even if all other requirements are met, no activity that would compromise any one of the "three tiers" of antidegradation is allowable.
- 14) *Tier I of antidegradation* prohibits any activity that would remove any existing use.
- 15) *Tier II of antidegradation* requires state to avoid, or at least hold to an absolute minimum, any lowering of quality of waters that currently meet or exceed standards.
- 16) *Tier III of antidegradation* prohibits any activity that would degrade an "outstanding water"—a water of exceptional ecological significance—or a water that has high recreational or other social value.
- 17) *Mixing zones* are areas designated by states where some or all the water quality standards are waived to allow for dilution of pollution. Citizens should work to minimize their use and impact.
- 18) *Changes to state water quality standards* are to be considered at least every three years with at least one public hearing and opportunity for public review and written comment. This is the Triennial Review of Water Quality Standards.
- 19) *Changes to state standards* are not effective until *approved by the EPA*. If the EPA disapproves of a state's water quality standards it must impose standards of its own.
- 20) In most states, *citizens may serve as catalysts* for consideration of specific changes to water quality standards through some type of state administrative process.
- 21) "*Impaired waters*" are waters that do not support designated uses after the application of the NPDES permitting process and "best management practices." States must update their lists of impaired waters every two years after reviewing the best available data.
- 22) "*Total Maximum Daily Loads*" are watershed-wide pollution budgets and associated clean up plans. They are required for waters on a state's impaired waters list.
- 23) Agencies must *consider all available data*, including data from the public, when listing impaired waters. They must also circulate a draft list every two years for *public comment*. Interested citizens should get involved in the development of TMDLs in their watershed.
- 24) *All federal licenses and permits* for activities which may result in any discharge into water *require water quality certification* under section 401 of the Clean Water Act. This requirement gives states veto authority over federally permitted activities, and it is an opportunity to regulate activities on private land.
- 25) *States may waive their water quality certification* responsibility; it is automatically waived if the agency does not act on application for certification within one year. The public should monitor Section 401 applications and draft certification to prevent waivers if possible.
- 26) The Army Corps of Engineer regulates all proposed activities that will discharge dredged or fill material into water such as dams, channel modifications to rivers and streams, or activities affecting wetlands. The EPA has veto authority over Corps "*dredge and fill*" permits.
- 27) The "*dredge and fill*" permits are a *federal action*; they require water quality certification from the state and endangered species consultation if applicable. It is one of the ways that private land activities are regulated.
- 28) *Nonpoint source pollution reduction is funded through grants to states.* States allocate the money through grants and use some of the money to update state programs and nonpoint source assessments.
- 29) The Clean Water Action Plan, announced in 1998, calls for the non-point source program to stress a *watershed-based approach* to nonpoint source management.
- 30) *State Revolving Water Pollution Control Funds* (SRFs) are established in all 50 states. Used primarily for municipal sewage projects to date, these funds can be used for a wide variety of pollution control activities, including projects to address unregulated and difficult-to-fund watershed problems.



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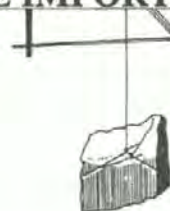
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**CELEBRATE EARTH DAY 2000 WITH THE
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Working together with conservation groups, schools, businesses, health care professionals, legislators, and many others, VNRC plans to make this a statewide celebration around the theme Sustainable Energy/Sustainable Vermont.

Mark your calendars for Friday, April 21 in Montpelier, and Saturday April 22 in Burlington. Music, food, entertainment and workshops will be available.

Possible activities include:

- A global school website to link participating schools around the state on environmental themes of local importance.
- We have the support of Mayor Clavelle and the City of Burlington to use the Church Street area to the waterfront, as well as the use of the train to run from the waterfront to the Intervale.
- The famous Bread and Puppet theater group will celebrate Earth Day with us by leading a parade down to the waterfront.
- A statewide radio station, 104.7 ("The Point") has agreed to help spread the word.
- Other ideas have ranged from a rally on the Statehouse lawn to present the voter report card, a relay race between Park & Rides from Montpelier to Burlington, and a mural contest to leave a permanent reminder of Earth Day.

Volunteers are needed to organize events and your ideas are welcome. For more information contact us at vnrc@together.net, phone 802-223-2328, fax 802-223-0287 or check out our website at www.vnrc.org.



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