

Published by the Vermont Natural Resources Council

THE WIDENING,
FLATTENING AND
STRAIGHTENING OF
VERMONT: Where Is
Road-Building Taking Us?

Also in this issue:

- · Wetlands: Threats and Opportunities
- Rivers Protection
- · And More



Knoll Farm Inn and Conference Center

150 acres preserved with permanent conservation restrictions through the Vermont Land Trust.

Seminars and retreats yearround on environmental, peace and justice issues. Write to Ann Day for a complete schedule.

Bragg Hill Road Waitsfield, VT 05673 (802) 496-3939

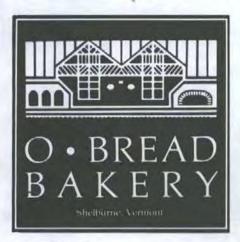
Consulting Foresters Association of Vermont





The Consulting
Foresters Association
of Vermont (CFAV) is
dedicated to
promoting and
strengthening the
long-term
conservation and
management of
Vermont's natural
resources.

For more information and a free directory of consulting foresters in your area, please write to: P.O. Box 153, Thetford Ctr. VT 05075



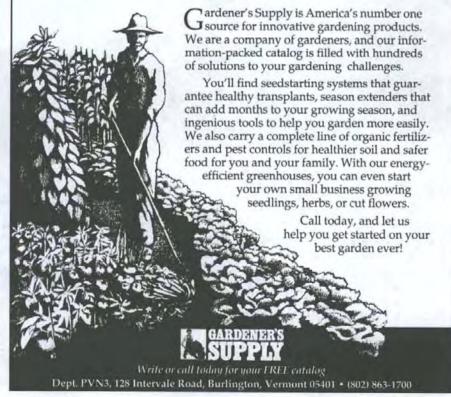
9,000 OUT-OF-PRINT BOOKS

Lilas Hedge Bookshop

NORWICH, VERMONT

Main St., across from Norwich Inn, 1 mile from Hanover, N.H. Open all year Thurs, thru Sun. 10-5

We Guarantee Your Best Garden Ever!



VERMONT ENVIRONMENTAL REPORT

Published by the Vermont Natural Resources Council

Fall, 1990



VNRC BOARD OF DIRECTORS

Kit Anderson, Grand Isle Ann Clay, Arlington Jane Difley, Bennington Ned Farquhar, Plainfield, Secretary John Hemenway, Strafford Patsy Highberg, Woodstock, Chair David Jillson, Essex Junction Richard Kellogg, Huntington Roberta MacDonald, Williamstown Richard Mixer, Hanksville Sarah Muyskens, Burlington, Treasurer Andrew Nuquist, Montpelier John Nutting, Waterbury Center Scudder Parker, Montpelier Thomas Rawls, Monkton, Vice Chair Stephen Saltonstall, Bennington Mark Schroeder, Belvidere Leigh Seddon, Montpelier Peter B. Smith, Belmont Alan Turner, Waterbury Center William Uptegrove, West Townshend Katherine M. Vose, Burlington

Credits: Masthead design and graphic consulting by The Laughing Bear Associates. Cover illustration by Sherry Frazer. Vermont map on back cover by Ed Epstein.

Printed on 50% recycled paper.

Transportation in Vermont The Long Road 10 Vermont Transportation Planning Travels in the Slow Lane Why doesn't Vermont have comprehensive transportation planning? Today's approach — highway planning — could leave Vermont traffic-high and energy-dry in the future. By Deb Brighton. 14 The Widening, Flattening and Straightening of Vermont Vermonters Ask: Where Is Road Building Taking Us? How are various state transportation projects affecting Vermont's natural resources, towns and citizens? An in-depth look at a number of these projects. By Susan Clark and Peg Elmer. Wetlands: Threats and Opportunities 18 Case Studies of What's Happening Around Vermont A look at Vermont's new wetlands rules and the possible ramifications for Vermont's wetlands. By Steve Crowley. 22 The Poultney River A Citizen Involvement Success Story Vermont's citizens are taking action! Take a look at one citizen group's efforts to protect a river. By Sylvia Plumb. 2 The Inside Word Executive Director Ned Farquhar puts forward an action plan for VNRC. 3 Vermont Perspective Briefings on current issues. **VNRC News and Notes** 25 New staff, new programs — take a look inside for VNRC news! **Bulletin Board** 28 Upcoming events and notices.

THE INSIDE WORD

DIRECTION FOR THE FUTURE — VNRC Defends Your Stake In The Environment

Ned Farquhar, Executive Director

I'm proud to be the new Executive Director of VNRC, a trusted and effective organization with 27 years of scars and skills from the environmental front — and, of course, with the strength and direction needed to defend Vermont's natural resources in today's growth- and consumeroriented society.

As a VNRC member, you have an important stake in the environmental movement. You are involved in the effort to represent the interests of natu-

"VNRC, a trusted and effective

Vermont's natural resources..."

organization with 27 years of

direction needed to defend

scars and skills ...

and, the strength and

ral resources that can't lobby or litigate on their own behalf — the forests, the wildlife, the clean air and water of the Green Mountains.

You are helping address some significant threats: subdivisions, ski slopes, highways, and malls proposed even in the most critical habitat areas . . . the uninformed legislative "backlash" against envi-

ronmental protection . . . the vast (often hidden) investment of special interest lobbyists in channeling government-decisionmaking . . . the rapid conversion of Vermont's farms and forests and our rural economy.

Representing thousands of people like you who are interested in protecting the environment, VNRC under my direction will emphasize property tax reform, better rural economic policy, protection of rivers and wetlands, conservation of forests and wildlife, and state agency planning for sustainable land and energy uses.

How will we achieve these goals for Vermont's environment? Recognizing that citizen action and education are the roots of the environmental movement, we'll work closely with dozens of local citizen groups on local issues. We'll put forward constructive legislative policies and strengthen our legislative presence next year. And we'll be constantly in front of the courts, the administrative agencies, and the boards (water, energy, and environmental) that have broad discretion in managing public resources.

We need your continued support. And Vermont's natural resources never needed us more!

...

Editor's note: Anatole France wrote in 1850 that people are designed so that we "can only find relaxation from one kind of labor by taking up another." Anatole has got my number, and describes something like what I have in mind as I look forward with joy to a 4-month sabbatical from my 5 1/2 year editorship.

As with all issues of the V.E.R., I have (in consultation with VNRC staff) assigned the contents of the upcoming Winter issue. However, final editing for the issue will be in the capable hands of Allen Gilbert of Press Kit. (You'll also find a sample of Allen's editing in this issue's "Vermont Perspective" section.) VNRC's Sylvia Plumb will be responsible for production work, with design left up to the genius of the Laughing Bear Associates of Montpelier. SC

VNRC STAFF

Executive Director Ned Farquhar

Administration and Development
Debra Crespin, Deputy Director
for Administration and
Development
Marie Frohlich, Office Manager
Rebecca Sheppard,
Membership Coordinator

Information and Education
Susan Clark, Editor, & Director,
Information & Education Program
Sylvia Plumb, Information and
Education Assistant

Policy and Issues
Stephen C. Crowley, Director, Water
Quality and Wetlands Program
Peg Elmer, Director, Land Use
Policy Program
Jim Shallow, Director, Resource
Conservation Program

Southern Vermont Office Marcy Mahr, Director, Southern Vermont Program Diane Newton, Research/ Administration Coordinator, Southern Vermont

The Vermont Natural Resources Council is a non-profit environmental organization founded in 1963 to promote the wise use of Vermont's natural resources. VNRC does research, legislative lobbying, advocacy and educational work on issues including forestry, agriculture, water, energy, wastes, and growth management. VNRC is the Vermont affiliate of the National Wildlife Federation.

The Vermont Environmental Report is published quarterly by the Vermont Natural Resources Council. Main Office: 9 Bailey Avenue, Montpelier, Vermont 05602, tel. (802) 223-2328. Southern Vermont Office: Box 1820, Bonnet Street, Manchester Center, Vermont 05255, tel. (802) 362-3113.

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

VERMONT ENVIRONMENTAL REPORT

VERMONT PERSPECTIVE

NEEDED: YOUR COMMENTS

Act 200 Guides New Planning Process For State Agencies

After meeting weekly for 18 months and holding 20 regional public hearings, state agencies are developing coordinated plans that will guide their work in the 1990's. It's still not too late for citizens who haven't spoken up to become involved, though.

The planning is mandated by Act 200, the state's controversial new planning law. The law's chief aim is to get people on all levels and from all walks of life to consider a series of planning goals as they work to shape the futures of their communities and regions. Coordination of planning efforts is key, and for once not even state agencies are immune from having to work with one another as well as with towns and regional planning commissions.

"It's forced some agencies to bend in ways they never have before, particularly in regard to coordinating state actions with town and regional plans and to building an open mind and open door to citizen participation," according to Martha Judy, policy analyst for the Governor's office. "We may not be where we all want to be, but there has been a lot of progress,"

The mandate offers a significant opportunity for Vermonters. Some state agencies were known for a lack of planning and foresight, and often didn't see how their actions affected individual towns. Now under Act 200, public input can shape policies so growth occurs in the places and in the ways that towns and regions want.

The key, though, is that the public get involved. The opportunity to participate in the planning must be taken now. Public comments will be received through November, with the final plans going to the governor in December.

"It's very important for citizens to grasp the opportunity to get involved in the state agencies' planning process, especially while the ground rules are just being made," said VNRC Executive Director Ned Farquhar.

The planning process has not been easy for the agencies themselves. They have struggled to resolve conflicts arising from very different mandates, such as promoting economic development versus protecting natural resources.

"We have learned a lot about each others' programs and gained a much better understanding of each others' priorities," said Rose Paul of the Agency of Natural Resources.

"One action this process has definitely encouraged is to include as much citizen participation as possible in the development of our policies," she said.

A hitch to the compatibility of state plans with municipal and regional plans is so-called "issues of state concern."

These are issues where, according to Paul, the state may not be able to bend to town concerns because of specific state laws mandating protection by the state agency. An example might be the Agency of Transportation pre-empting local concerns in granting curb cuts on a state highway, or in promoting projects such as the Bethel bridge replacement.

VNRC has raised the "issues of state concern" argument in connection with Act 250 criteria but not very much with local regulations. Examples here might be protecting necessary wildlife habitat, or aesthetics.

For more information on hearing dates about state agency plans, or on how to obtain draft plans, call Martha Judy at 828-3326. **PE**



Dufresne Henry, Inc.

Consulting Engineers



...creating a better environment through engineering solutions

Precision Park . No. Springfield, Vermont . 886-2261

58 State Street . Montpelier, Vermont . 229-0711

30 Western Avenue . St. Johnsbury, Vermont . 748-3946



A Country Inn in the country

Welcomes you with old fashioned hospitality and style, combined with modern amenities, great food, and spectacular views of Vermont's highest mountain. Vermont Explorer's tours and seminars are available. Miles of dirt roads and X-C skiing at your doorstep. Smuggler's Notch and Stowe downhill skiing nearby. 3 - 5 day packages. Non-smoking.

RR1, Box 578C, Jeffersonville, VT 05464 (802) 644-8265

> Loving Gifts: Books and Records

The Wermont Book Shop

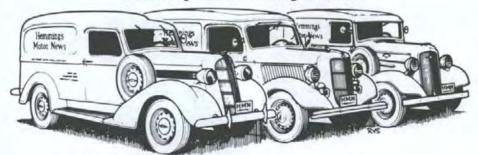
Middlebury 05753 (Thousands of records jazz & classics too.)

Prompt mail service

Hemmings Motor News

Antique Auto Publications

"the bible" of the old-car hobby since 1954



Visitors Welcome-West Road, Route 9, Bennington

Open Monday-Friday 9-5

Mailing Address: Box 100. Bennington, Vermont 05201

Also Publishers of Special Interest Autos,

Hemmings Vintage Auto Almanac, and Small Boat Journal.

SPEAKING FOR THE RIVER

Bristol Activists Spark New Planning Efforts

Question: When does a proposal that would severely damage a top trout stream turn into a citizens' movement for environmentally sound development?

Answer: When that stream is the New Haven River, and the citizens are the people of Bristol Village who want to have a sound downtown economy and clean water at the same time.

If the results of the past few months are any indication, they'll get both.

It all started years ago with a proposal to solve the sewage problems of Bristol's downtown business block. With several failing septic systems and a desire of some businesses to expand, design work began on a treatment plant that would discharge into the high-quality waters of the New Haven River.

Confusion ensued as the Agency of Natural Resources first encouraged the discharge, which would have been into a never-used "Class C" zone created three decades ago. (The designation of "Class C" refers not to water quality but to whether a stretch of river has been classified to receive treated waste. All discharges must be into Class C zones, which sometimes — as in the case of the New Haven — are very clean stretches supporting fish and allowing swimming. Plans are underway around the state to upgrade unused Class C zones to protect their use.)

The proposal stumbled against two obstacles: conflicting messages about the C zone ruling, and the fact that the New Haven River is a great recreational resource. State and federal laws make it clear that existing uses, such as swimming, are protected.

Bristol residents gathered in defense of the river. According to New Haven River Anglers' President Pete Diminico, "This is one of the very best trout streams in the whole state."

Residents Betina Matteson and Meredith Hobart have gathered signed



testimony, complete with locator maps, from villagers whose families have been swimming in the New Haven for generations.

VNRC water resource specialist Steve Crowley assisted the river activists in preparing for the hearings. "The New Haven River is a great natural resource," said Crowley, "but it can't speak for itself."

The grass-roots activism is continuing. The Village Trustees have, as a result of popular pressure, appointed a Sewage Committee to look into land-based alternatives. Residents are actively pursuing a River Watch school/community monitoring program. A petition is underway to upgrade the old C zone to "Class B," to be followed by a petition to designate the New Haven River an Outstanding Resource Water. SCC

CONTRACT OPPOSED

Conservation Is Probably Cheaper

After reviewing evidence presented in months of hearings on the proposed Hydro Quebec power purchase, VNRC and other environmental groups have filed briefs before the Vermont Public Service Board opposing the proposed electric supply contracts.

Environmentalists argue that evidence presented by the companies and the Vermont Department of Public Service shows that purchasing the power will create an energy "glut" in Vermont — forcing re-sale of some power out of state and reducing incentives for less expensive energy conservation inside Vermont. The economics of the proposed purchase might, in fact, hurt Vermonters, who could save money through demand-side management (DSM). DSM is often cheaper than the construction and purchase of new energy supplies, including Hydro Quebec.

"The Public Service Board has already made a historic commitment to energy conservation in Vermont in its recent energy efficiency decision," said VNRC Board member Leigh Seddon. "We believe that allowing the Hydro Quebec purchase would undermine the principles of energy conservation in that decision. We'd like to see a more serious commitment by the utilities to real energy efficiency in this state, which is dangerously 'hooked' on outside energy sources already." NF

VERMONT PERSPECTIVE



FOREST STUDY COMPLETED "Greenline" Concept Is Included

The final report of the Northern Forest Lands Study Group has been submitted to Congress and regional governors, and it contains some important changes suggested by VNRC and other environmental groups.

Among them is a "greenline" strategy, or a region-wide planning approach that establishes areas targeted for special protection. In these areas, both the land and the way of life of the people now living there would be preserved through planning, tax incentives and land acquisition.

The group's final report follows two years of studies and public hearings carried out by the U.S. Forest Service and the Governor's Task Force on Northern Forest Lands. It was begun after large chunks of northern forest land were sold by a private paper company following a hostile takeover. Fear arose that more of the 26 million acres of undeveloped forest land in northern New York, Vermont, New Hampshire and Maine would be lost to developers.

A draft report released about a year ago drew criticism that there was no plan of action to apply the protection strategies spelled out in the report. The inclusion of a greenline strategy is seen as a step in addressing that criticism.

The greenline concept is modeled after the English National Parks, which preserve the natural landscape while people continue to work the land. Here in the U.S. greenlines have been used with varying degrees of success in the New Jersey Pinelands and Washington's Columbia River Gorge.

The Governors' Task Force has also recommended the creation of a Northern Forest Lands Council to carry on its work. The NFLC's job would be to inventory the forest resources so any acquisition funds can be wisely spent.

"Vermonters' concern for their natural resources puts the state in a position to take the lead in adopting a greenline strategy to protect its forests," said Executive Director of VNRC Ned Farquhar. **IS**

PUBLIC TRUST AND WATER WITHDRAWAL

At What Price More Artificial Snow?

Ski areas' urge to increase snowmaking capability has spawned conflict in the past, but now there is a new angle to the story: public access and use of rivers and lakes.

The new twist results from a 1989 Vermont Supreme Court decision that the state's waters must be retained for public uses. The case involved filled railroad land along Lake Champlain, but the "public trust" decision — as the doctrine of public access and use is known — was seen as having broad implications for any waterway.

Now those implications are surfacing. In several different Act 250 cases involving expansion of snowmaking at ski areas, the public trust doctrine looms as a major issue.

Because snowmaking operations demand large amounts of water, ski areas face taking greater and greater amounts of water from nearby streams. Some plans call for building large ponds to store water for winter use.

But is diverting water from public waterways, turning it into snow and generating private profit, a public use? The question is a sticky one, complicated by the fact the Supreme Court said the Legislature must determine what a public use is.

In the Mad River Valley, the Sugarbush Ski Area has proposed a major withdrawal of Mad River water so it can make more snow on existing trails as well as cover new ones in the Slide Brook area between Sugarbush and Sugarbush North.

The Sugarbush project would reduce stream flows in the river at critical times of the year. Minimum flow requirements and restrictions on withdrawal when stream flows drop below a certain level are needed to protect habitat.

Such requirements and restrictions can be difficult to negotiate, although a recent snowmaking expansion case involving the Smuggler's Notch Ski Area

VERMONT PERSPECTIVE

demonstrated that need not be the case.

Smuggler's Notch proposed building a 6-million gallon pond to increase its snowmaking capability. As at Sugarbush, the pond would store water collected during periods of high stream flows and use it later to make snow.

"We were contacted by Smuggler's to see if we had any concerns with this application," said Jim Shallow, VNRC's Resource Conservation Program Director. "Smuggler's has historically met with us to address our concerns early on.

"After doing some research, we found out that there might be some problems with the stream flows being too low on streams used to fill the pond," reported Shallow. Fish habitat in the Brewster River could be harmed.

The state hydrologist and fisheries biologist also felt the current low flow standard was too low. Because they didn't come to the Act 250 hearing, however, VNRC raised the issue. The ski area responded by offering to increase the low flow by 40 percent.

Shallow found Smuggler's response encouraging. "It showed that some of the ski areas are realizing it's in their interest to be open and forthright about projects rather than approach things in an adversarial way — especially when public resources such as water and state forest lands are involved," he said.

In the southern part of the state, the Okemo Mountain Ski Area has turned to the state Environmental Board to reverse the denial of its application for a permit to expand snowmaking. Okemo's plan likewise involved withdrawing water from nearby waterways. Significantly, the local commission pointed to the public trust doctrine as one of the reasons for denying the application.

The annual Environmental Law Conference, sponsored by VNRC and Vermont Law School, will focus this year on "Public Trust Resource Protection Required By Law." The conference is set for December 3 at the Lake Morey Inn in Fairlee. *IS/SCC*

STATE ENERGY PLAN DUE SOON

Vermont Could Benefit Environmentally and Economically

A cid rain, global warming, the Exxon Valdez disaster, Hydro Quebec, Seabrook, the proposed Champlain pipeline, radioactive waste disposal — all are environmental issues and all are energy issues. Nearly two decades after the "energy crisis," energy is likely to emerge in the 1990's as a major focus for environmentalists.

Within Vermont, action began in October 1989 when Governor Madeleine Kunin issued an executive order calling for the development of a comprehensive energy plan by Jan. 1, 1991, a plan that "will guide the purchase, regulation, and use of all forms of energy within Vermont," with goals of "...protecting the environment, increasing energy efficiencies, and reducing overall energy costs."

Few would question the environmental benefits of a plan to move towards an energy supply and use system based on efficiency and renewable energy technologies. Such a plan could also have economic benefits. As VNRC Board member Leigh Seddon points out, "Vermont currently spends more than \$1 billion for energy, about two-thirds of which goes out of state. This is a tremendous economic drain."

An inter-agency group involving staff from the state Agency of Natural Resources, the Department of Public Service and the Office of Policy Research is coordinating development of the energy plan. It will be seeking public input, with public hearings planned for the fall.

VNRC will work actively to shape this plan. If you're interested in energy issues, contact VNRC and we'll let you know how you can help. Steve Webster

Steve Webster is an energy specialist with SolarWorks, Inc. of Montpelier.

WATER DISTRICT EXPANSION HALTS

Champlain Voters Turn Down \$15-Million Project

Champlain Water District (CWD) voters in June turned down a proposal to begin spending money on plans to build a large new water treatment plant in Milton, an indication that the once-solid consensus on massive expansion of Chittenden County's "inner ring" may be fading.

The district, which serves the residents of Shelburne, South Burlington, Colchester, Winooski, Essex and Essex Junction (including IBM), and will soon include Jericho, currently operates one treatment facility, located in South Burlington. At times, the district purchases supplemental water from Burlington under a contract that expires in 1993.

According to the district's annual report, expansion plans include Milton, Westford, Underhill and Hinesburg, with additional service in Jericho. In many cases, growth in these towns is limited by access to good water supplies.

The biggest and best option for the district's needs hasn't even been explored, however: an aggressive water conservation program. It could eliminate the need for any new facilities well into the next century.

"Large water districts like the CWD are utilities with a major regional impact," says Conservation Law Foundation attorney Lewis Milford. "This proposal is a clear illustration that the time has come for public service review, to ensure that the public's rate money is invested in the wisest possible manner." SCC

Megatrends 2000

Ten New Directions For The 1990's

John Naisbitt & Patricia Aburdene

"John Naisbitt got It very right a decade ago. Now Naisbitt and Patricia Aburdene are back with Megatrends 2000, just as provocative and, I'll bet, just as right."

— Tom Perens, Author
In Search of Excellence

"The trendmasters, Naisbitt and Aburdene, have done it again! A splendid read, multi-interesting, maxi-nlightening, mega-good!"

— LESLEY STAHL, CBS News

"Better than Megatrends. Visionary in scope; rich in examples. Megatrends 2000 is a bold, strategic overview that could help us to higher ground." —MARILYN FERGUSON, AUDIO The Aquarian Conspiracy

"Facing the future is always both exciting and frightening. Megatrends 2000 adds to the excitement and subtracts from the fear. I'm taking it with me into the millennium." — Bill. Moyeas

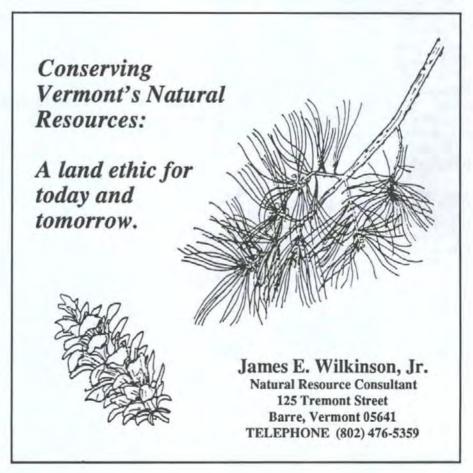






for all your financial needs...

from within Vermont call 1-800-642-5154



WETLANDS PROTECTION: FULL SPEED AHEAD Efforts Underway Around the State

Following adoption last winter of rules for Vermont's four-year-old wetlands law, Vermonters wasted no time preparing to protect important areas. Here is just a sampling of what's gone on this spring and summer:

 The first petition for a Class I wetland (the most protective designation) may be for the Scanlon Bog, in Brandon. Often used as an educational resource, this bog could soon face a gravel pit for a neighbor.

 The Burlington Conservation Board is preparing a Class I petition for the wetlands complex at the mouth of the Winooski River.

The Vermont Wetlands Association held its annual meeting in June, with workshops on local protection measures and rare wetland communities, a panel discussion on Class I designations and a canoe trip on the South Slang of the Little Otter Creek.

 Several towns, including Manchester and Shrewsbury, have already included wetlands protection in their zoning ordinances; South Burlington and other communities are in the process of developing such ordinances.

 The Keewaydin Foundation, along with the Audubon Council, VNRC and the Addison Regional Planning Commission sponsored a one-day training session in June for community officials. Jeff Parsons and Steve Crowley, VNRC Director of Wetlands Program, presented background information on wetlands functions, boundary delineation and federal, state and local roles in wetland protection.

Despite all the efforts to protect wetlands, there are still proposals to fill many in. Early counts show eight proposals for Conditional Use Determinations and 16 separate rule violations. And several legislators have recently been heard to say they plan a stiff challenge to wetlands protection in the upcoming session. SCC



A Loss For Clean Rivers

Ottauquechee River Ruling Reversed

In a serious blow to environmentalists interested in protection of the Ottauquechee River, the Vermont Supreme Court this July abruptly reversed a lower court's ruling that prevented the establishment of a sewage discharge zone in the river.

The Supreme Court found that the Water Resources Board acted fairly when it decided in 1987 that the existing "B" classification — which does not allow sewage discharges — is not in the public interest. VNRC and numerous other groups appealed the Board's decision to Vermont Superior Court, winning a reversal of the Board's decision in early 1989. Sewage plant advocates then appealed the lower court decision to the Supreme Court and won a reversal.

Rob Woolmington, a Bennington attorney who represented environmentalists in the case, said that the Supreme Court's decision shows "the court will defer heavily to the findings of an administrative board, whether or not the findings offer an environmentally strong result."

VNRC Executive Director Ned

Farquhar said, "We are extremely disappointed in this outcome. It is a painful loss for the Ottauquechee Coalition, VNRC and other groups.

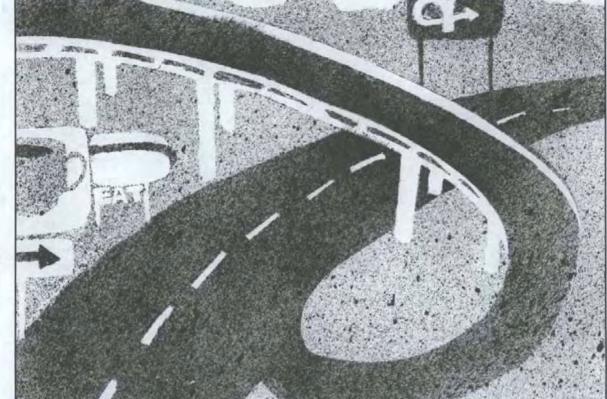
"The Water Resources Board apparently has almost unlimited discretion to surrender clean waters — especially those not used frequently, regularly or consistently by humans — in the interests of economic development," Farquhar noted.

Appeals from the Supreme Court decision are unlikely, but applicants for the sewage discharge will need permits issued by the state under federal and state clean water laws.

"The decision has implications that reach far beyond the Ottauquechee," said Farquhar. "It threatens highquality rivers and streams, and it demands environmentalists be closely involved at the administrative level.

"As always, you can find a silver lining," said Farquhar. "The Supreme Court refers repeatedly to efficient, compact or clustered development promised by the advocates of the sewage plant on the Ottauquechee. Even though it would be hard to see such a pattern of growth in the Sherburne area today, it has now been promised. And a Supreme Court decision has been pinned on the promise. We'll need to be on the lookout as Sherburne develops." SCC





The
development
patterns
engendered by
highway building
make us highway
dependent.

THE LONG ROAD

Vermont Transportation Planning Travels in the Slow Lane

Deb Brighton

Vermont Transportation Quiz Question: According to the Vermont Transportation Board, what program is "a major impediment to transportation planning for meeting the State's critical transportation needs over the last century"?

We know it's a tough one. Who is the most likely culprit hindering transportation planning? Could it be those citizens groups, with their "not-in-my-backyard" attitude about highways? Or those die-hard environmentalists who always oppose development?

No, in fact, the Board found that the Agency of Transportation doesn't have to travel far to find transportation planning's worst enemy — it is the Agency itself.

In its review of the Agency of Transportation (AOT) for the legislature last year, the Board of Transportation reviewed the AOT's program — a wish list of transportation projects — and claimed it showed no relation to any priorities, to long-range planning, to community values, or to consideration of the role of the automobile in the 21st Century.

Vermont environmental attorney Harvey Carter explains it this way: "The Agency of Transportation has been confused about its mission." Carter, who tackled the highway bureaucracy in the '70s, argues, "They want to provide *convenient* transportation, which means you build roads for cars to carry one person. The goal today should be to provide not just

convenient but efficient transportation. The AOT's interpretation of its mission promotes the most inef-

ficient transportation."

Many of the problems of inefficient transportation have been well publicized. The most direct problems include energy use, its contribution to air pollution and global warming and traffic accidents. Other effects are more subtle: sprawl and strip development, shops and offices which can't be reached on foot, increasing economic vulnerability caused by our dependence on cars and gasoline, and environmental and social costs which we have left for others to pay for. In spite of the growing recognition of the problems, we continue to put down more payement.

This year, however, there were signs of change. The Transportation Board's review of the AOT's program is just one example. In addition, the January, 1990, "Canby Report" management study commissioned by the Vermont Legislature called for many improvements in the Agency's programs. Notes the report: "Outside of the budget, there does not appear to be a clearly stated mission accompanied by goals, objectives and priorities for the Agency." Among the Canby Report's conclusions:

"The Agency's planning process is projectoriented and lacks an overall systems plan for Ver-

mont's transportation needs;

"The process for the development, approval, and implementation of the capital program is based on federal programs rather than the state's needs and capacities;

"Projects have been placed in the capital program before they have been clearly defined, causing

schedule delays and cost increases."

The legislature endorsed many of the Canby report's recommendations by enacting them into law. Meanwhile, Lieutenant Governor Howard Dean and Governor Madeleine Kunin called for a moratorium on unnecessary road projects, and found many which met their definitions of unnecessary. Highway projects across the state such as the Bethel Bridge and the Bolton interchange have been stalled by citizens (see accompanying article). The AOT conducted a survey and acknowledged citizens are calling for change. And, although the Clean Air bill did not pass, it introduced an important concept to transportation planning: reducing, rather than meeting, demand.

"Ask any land use planner about traditional highway development, and you'll hear a familiar list of problems which these road projects encourage," notes VNRC Land Use Policy Director Peg Elmer.

"Rather than occurring in town centers, the growth tends to sprawl in strips along the road," explains Elmer. "Rather than boosting the economic vitality of village centers, highways — especially village bypasses — promote a land use pattern of de-

veloping the countryside outside of towns. So rather than helping to preserve farmland outside the village center, highways make outlying land a target for

commercial or residential development."

The development patterns engendered by highway building make us highway-dependent. Many of the stores and restaurants along Shelburne Road, for example, can only be reached by car. They are not connected by sidewalks, partly because the feeling is no one would want to walk along (or cross) the multi-lane road. The commercial and industrial enterprises which are growing up in Vermont rely on highways, not just for employees and customers but also for freight: in the last decade, the increase in truck traffic has outpaced the increase in automobile traffic. This leaves the state extremely vulnerable to any disruption of our cheap fuel supplies.

Even the AOT, in its draft Act 200 plan notes, "For Vermont, a predominantly rural state, the threats posed by increasing costs of fossil fuel or supply cutoff are even more critical than for urban states with well-developed public transportation sys-

tems.

The mission statement of Vermont's AOT calls for maximizing citizen mobility and goods movement. To many planners, this goal is outdated. It is access to work, home, recreation, and education — not mobility — which should be maximized. This may mean planning communities differently and reducing the need for the automobile rather than adding more lanes to highways.

"In the past, they just looked at the expected trends in traffic and then designed the road," says Tony Reddington, policy analyst for the AOT.

To some transportation planners, this traditional approach is advantageous, because it is consumerdriven and free from controls on individual mobility.

To others, the approach is irresponsible. "We have a slide-rule mentality making decisions," notes Harvey Carter. "We should be thinking about the social and environmental costs, not just providing

convenient transportation."

"We've got to look at the whole picture," says Chittenden County Regional Planning Commission's Transportation Director Craig Leiner. "The real key is there's not just one answer. We need to have a package of techniques including intersection improvement, public transportation, and demand reduction."

The Shelburne Road Corridor Transportation Management Association, a consortium of private developers being organized by Leiner, is attempting various methods to reduce the traffic problem on the Route 7 approach to Burlington. Developments are reviewed to ensure they are as "transit-friendly" as possible. Recommendations include providing bus stops and shelters close to the building while "Convenient transportation... means you build roads for cars to carry one person... The goal today should be to provide not just convenient but efficient transportation."

Harvey Carter

"We are now providing inefficient and misleading price signals, especially to highway users, by the subsidization of highway costs..."

Richard Mallary

parking lots are located behind the building. This gives bus riders preferential treatment rather than asking them to tromp through large parking lots. In large companies, services such as day care are provided on site so employees don't need to make an extra trip. Consortium members will also provide subsidies to public transportation, encourage employees to carpool, and stagger work hours to reduce traffic jams at peak hours.

The consortium's approach recognizes that reducing the number of automobile trips will solve problems of road congestion just as well as building more highways. Traditionally, however, planning for new roads was based on estimating demand and then designing roads to meet that anticipated demand. It did not consider whether reducing or managing demand would be more appropriate.

Thinking about the true public costs of transportation can help us choose the most efficient alternatives — and figure out a fair way to pay for them.

Most of the direct costs of highways are paid for by those who drive on them. Gas taxes at both the federal and state levels, registration fees, and purchase and use fees go into transportation funds.

However, these funds are not keeping pace with highway needs. In Vermont, highway travel has nearly tripled since 1954 while highway funds have hardly changed, according to the AOT. A recent study prepared for Vermont's Legislative Council by SYDEC, Inc., projects that revenues from user fees will not keep up with inflation, while necessary expenditures are rising.

At the national level, user fees are covering less and less of the total highway bill. In 1975, road user taxes and

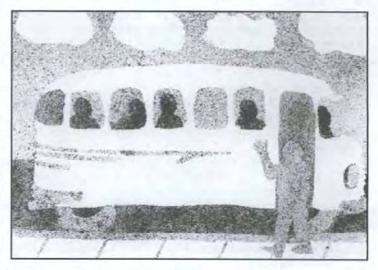
tolls paid for only 65 percent of the total highway costs. By 1987 the gap had widened and user fees paid for only 62 percent of the bill. Rather than raise taxes at the federal level, the cost has been passed on to the states and, in Vermont, to the towns which pay for local road projects through the beleaguered property tax. Each year the dollars are spread more thinly both to lay down more pavement and to resurface, repair and rebuild old roads.

U.S. Transportation Secretary Samuel Skinner estimates that 90 percent of the Interstate Highway system will need capital improvements within the ten years, and that repairing the bridges will take two-thirds as much as it cost to build the entire Interstate project originally.

There are many other costs which are not factored into the user fee equation. First, the town does not collect property taxes on the public parking lots and roads. Although this seems minor in rural towns such as Addison or Chelsea, it amounts to over half of the area of larger cities. Other costs are somewhat less easily quantified: the cost of the loss of farmland or wildlife habitat; the costs of traffic accidents; the costs of air and water pollution; the costs of disposing of dead car parts and batteries; the costs of congestion and delay.

Finally, there are costs incurred because of the way our towns are growing. Because of the popularity of the personal automobile and our investments to satisfy that demand, many public transportation systems have failed. In 1920 there were 47 billion passenger railroad miles; by 1975 there were only 9.5 billion. There is a cost to the lack of options for transportation; a cost to the vulnerability we have for being so dependent on gasoline; a cost to providing municipal services to support sprawl rather than clustered development.

Many people have suggested that transportation



choices, such as the decision to build or improve a highway, should be made only after completing alternatives on the basis of all the public costs — including environmental and social costs.

"We ought to develop systems to reflect more accurately the total real costs of our present transportation system," says Richard Mallary, President of Vermont Electric Power Company and former Republican U.S. Representative.

"We are now providing inefficient and misleading price signals, especially to highway users, by the subsidization of highway costs, subsidized parking costs, and our failure to assess to highway users any indirect environmental or other costs resulting from their highway use," says Mallary. "If we believe in a market system — and I do — we will achieve a much more rational and efficient allocation of resources if we provide proper price signals, and that

Calculating the true costs and benefits of transportation projects would help us to allocate costs and make the winners pay for some of the losses.

In 1989 the Brookings Institute published Road Work — A New Highway Pricing and Investment Policy which sets out the rationale for charging congestion taxes. These taxes would both charge people

for the amount to which they contributed to congestion and discourage them from driving. Others have proposed air pollution taxes which would work on similar principles.

"I think we'd get the biggest bang for our buck if we started charging for parking," says Craig Leiner. In Burlington, the cost of a parking place in a parking garage was estimated by AOT's Reddington to be \$1,200 per year, not including maintenance. "That's enough to make people think," Reddington notes. "Some people will want to carpool and put that money in their pocket."

A proposal gaining popularity nationally is a benefits tax, which is based on the following logic: When the public puts in a new road or interchange,

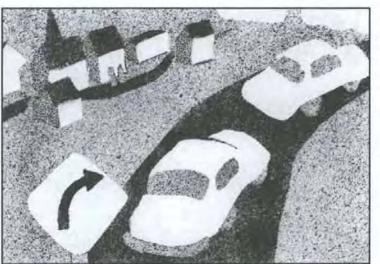
the public is affected unevenly. Some people hardly benefit at all, while others, particularly those who own property which suddenly gains accessibility and visibility, benefit tremendously. The public should be able to impose a tax to pay for some of the damages by recouping some of the benefits.

Along these lines, some people have suggested controlling and charging for curb cuts on new roads. This would enable the town to promote more orderly growth, to recover some of its investment from those who receive sudden windfalls, and to protect the investment in roads by preserving their capacity.

Some regions charge taxes or ask for payments commensurate with the benefit received. Lewis Milford of the Conservation Law Foundation suggests, "Development induced by highway projects must bear the cost of minimizing their adverse effects." As an example of the potential, he cites the Chittenden County Circumferential Highway.

"The proposed \$120 million road has caused exorbitant increases in adjacent land, some of it prime farmland that has been sold to the highest bidder in the expectation that the land would be valuable for non-agricultural uses. And the transportation agency did next to nothing to plan for or mitigate these negative impacts," Milford says. A better approach might have been to assess a benefit tax and use the money to purchase development rights on farmland. It is clear that a system of benefit taxes requires careful planning. Before a transportation improvement is designed, the town must determine where growth should and should not take place, and therefore, which land will be allowed to benefit and which will not. However, this type of analysis is a fundamental part of good planning.

"We think when a bypass is selected, the town should have an ordinance ready to restrict develop-



do transportation planning should talk with the folks that do land use planning, and they should do it early."

"The folks that

Craig Leiner

ment," says Jim Matteau, Windham Regional Planning Commission's transportation planner. "To the extent possible, we want a bypass to solve the traffic problem but not to change the commercial pattern."

"The folks that do transportation planning should talk with the folks that do land use planning, and they should do it early," says Craig Leiner.

Although there may seem to be a sudden public awakening to the idea that transportation should help, rather than hinder, our ability to meet our goals as a state, the concept is not new. Nearly 20 years ago public policy analyst Ben Huffman thoroughly and meticulously studied the state highway program and suggested it might be time "to regard transportation — not merely highways — as a public service, designed to meet objectives other than stimulating travel. These objectives could be to serve the variety of transportation needs of all Vermonters, and to conserve money, energy, and the physical integrity of Vermont's urban communities."

According to Harvey Carter, the concept may stand a better chance of catching on now. "Ben said it all back in the '70s," Carter notes. "The difference is that now more people are aware of the problem—and of the true costs of transportation."

Deb Brighton is a land use consultant with Ad Hoc Advocates of Salisbury.

THE WIDENING, FLATTENING AND STRAIGHTENING OF VERMONT

Vermonters Ask: Where Is Road Building Taking Us?

Susan Clark and Peg Elmer

Citizens argue that creating more roads in anticipation of more traffic can be a self-fulfilling prophecy. Cabot dairy farmer Jackie Folsom has vivid memories of her first meetings with the Vermont Agency of Transportation (AOT). When she and her husband Roy bought Crooked Brook Farm five years ago, she soon became aware of AOT's plans to widen and straighten the section of U.S. Route 2 that runs through their farm.

"We had an AOT representative explain to us that they had studied this section of the road, and that there were no businesses that it would adversely affect," she recalls. "I was amazed. That proposal would have taken thirty of our 100 acres. I had to ask, 'Don't you consider a farm a business?"

"Apparently, the traditional Vermont countryside doesn't conform to the wider, straighter, more convenient roads that the AOT has in mind," Folsom notes. In fact, she says with an ironic smile, AOT plans even include straightening one of the brooks on Crooked Brook Farm. What is less amusing is the Folsoms must point to the wrangling with AOT plans as a major reason their farm is now for sale.

The Folsoms are not the only Vermonters concerned by AOT plans. In Bethel, Bolton, Burlington and beyond, Vermonters are worried that the state's transportation projects are speeding us toward a drastically altered landscape and lifestyle. And citizens are demanding a say in the process.

Consider the following transportation projects:

Bethel Bypass. To provide a northern alternative between I-89 and the Killington/Pico resort region, AOT has planned an upgrade of Routes 107 and 100 including a major new bridge. After hundreds turned out for public hearings and Bethel voters resoundingly defeated the project, the Legisla-

ture delayed the project for one year, requiring AOT to meet with local leaders.

Route 4. After a strong response from area citizens, AOT's consultants recommended that their proposal for alternative alignments of Route 4 between White River Junction and Sherburne be downscaled to include only safety improvements. In their planning study conclusions, the consultants based their reasons for down-scaling on public outcry: "Unless the public and business community are willing to accept improvements, some of which may require the taking of private property and may change travel patterns in the corridor, it is unlikely the necessary improvements will be constructed."

Route 4 / Route 7 Bypass. Controversy swirls around two new routes; one would cut severely upland forested deer and bear habitat, while another would pass through suburban areas and wetlands in Rutland Town. Meanwhile, the Rutland Regional Commission notes that only 20-25% of the problems would be addressed by the by-pass — the rest could be handled by improvements to existing roads.

Granville Gulf. A short stretch of Route 100 lies at the base of a deep ravine; the home of Moss Glen Falls, this uniquely beautiful forest preserve was given to the State of Vermont in 1928 by Redfield Proctor. Deed stipulations specifically protect this historic area, and include limitations on tree cutting and preserving "the beauty, attractiveness and safety of the state highway." In the late 1950s, Forest and Parks Commissioner Perry Merrill bucked the powerful AOT and succeeded in blocking the Agency's proposal to straighten and widen this key section. This year, however, AOT is seeking

(Continued on page 15 after Annual Report)

VERMONT
NATURAL
RESOURCES
COUNCIL

Annual Report 1989-1990



Our record of achievement over 1989-1990 and our growing membership show that VNRC is an increasingly significant and effective influence in Vermont environmental policy and development.

Dear VNRC Member:

As a VNRC member, you are aware that the Vermont Natural Resources Council is a significant and effective environmental group. But the story doesn't end there. Our record of achievement over 1989-90 and our growing membership show that VNRC is an <u>increasingly</u> significant and effective influence in Vermont environmental policy and development.

When environmentally concerned Vermonters need help, VNRC is there to offer technical assistance and advice. When the Legislature, state agencies, and civil boards meet to decide on environmental laws and standards, VNRC is there to defend the interests of the environment. When 2,000 Vermonters gather on the State House lawn in celebration of the environment, it's VNRC that brings us together.

The Board of Directors is proud that this organization — now representing over 4,500 members concerned with protection of Vermont's environment — has successfully:

- urged the adoption of wetland rules protecting 4,500 Vermont wetlands;
- stopped the unplanned construction of a 15,000-seat permanent sports and arts center, threatening local communities and economies;
- protected bear habitat by working with resort developers and intervening in Act 250 proceedings;
- advocated new laws on environmental enforcement and hazardous waste management;
- · participated in the development of new state economic policies, emphasizing forestry and agriculture;
- convinced the Vermont Public Service Board to hold the proposed Champlain natural gas pipeline to normal environmental review standards;
- assisted dozens of local citizens' groups confronted by unwanted development; and
- educated Vermonters on such issues as property taxes and local development,
 Act 200 planning, and alleged "takings" of private property by regulation.

The VNRC Board of Directors, staff, and membership can look on 1989-90 as a time of achievement — and a time of building for the future.

Sincerely,

Patricia H. Highberg Chair, VNRC Board of Directors

VNRC BOARD OF DIRECTORS

Vermont Natural Resources Council 9 Bailey Avenue Montpelier Vermont 05602

Kit Anderson, Grand Isle Jonathan Bump, Putney ++ Ann Clay, Arlington (Vermont Maple Sugarmakers) + Jane Difley, Bennington + William Downey, Manchester ++ Ned Farquhar, Plainfield + Jean Flack, N. Ferrisburg ++ Joy Green, Dorset [deceased] John Hemenway, Strafford (VT Timber Owners Association) Patricia Highberg, Woodstock Clark Hinsdale III, Charlotte ++ David Jillson, Essex Junction Richard Kellogg, Huntington Roberta MacDonald, Williamstown + Karen Meyer, Montpelier + Richard Mixer, Hanksville Sarah Muyskens, Burlington Andrew Nuquist, Montpelier (Green Mountain Club)+ John Nutting, Waterbury Center Gail Osherenko, Wolcott ++

Scudder Parker, E. St. Johnsbury +

Tom Rawls, Bristol

Mark Roberts, Burlington ++
William Ryerson, Shelburne ++
Steve Saltonstall, Sandgate +
Mark Schroeder, Belvidere
Leigh Seddon, Montpelier
(VT Public Interest Research Group) +

(VT Public Interest Research Group)
Charles Smith, Burlington +/++
Peter Smith, Belmont
Alan Turner, Waterbury Center
William Uptegrove, West Townshend
Eunice Van Vleck, Middlebury ++
Katherine Maxwell Vose, Burlington +
Brendan Whittaker, Guildhall
David Wiggins, Proctor ++
Steven Wright, Craftsbury +/++

+ Joined the Board in 1989-90 ++Left the Board in 1989-90

VNRC STAFF

Susan Baird, Office Manager */**
Seth Bongartz, So. Vermont Associate
Director **
Jane Burchard, Info. & Ed. Asst.*/**
Susan Clark, Editor and Info. &
Education Coordinator
Debra Crespin, Development Director
Stephen Crowley, Water and Solid

Waste Associate
Peg Elmer, Land Use Associate
Ned Farquhar, Assoc. Director, Acting
Co-Director and Exec. Director
Pam Fowler, Office Manager**
Marie Frohlich, Office Manager*
Marcy Mahr, So. Vermont
Research & Admin.Coordinator
Tom Miner, Executive Director */**
Richard Mixer, Acting Exec.Director */**
Mary Morrison, Bookkeeper *
Sarah Muyskens, Acting Co-Director */**
Sylvia Plumb, Info. & Education Assistant *
Jim Shallow, Action Ctr. Associate
Rebecca Sheppard, Membership
Cooordinator
Betty Wood, Bookkeeper*/**

° Joined the staff in 1989-1990 °° Left the staff in 1989-90

INTERNS / STAFF SUPPORT

Andrea Cohen, Betsy Buckley, Betsey Brigham, Farley Brown, Jeff Beattie, Eileen Hiney, Roberta Lewando, Dan Linder, Amy Lord, Lisa Peskin, Steve Webster, Jude Whalen





Although many towns "rejected" Act 200 — most proceeded to plan in accordance with Act 200's goals and with assistance from the state and regional planning commissions.

VNRC: ADVOCACY

In 1989-90 public opinion polls, environmental protection once again topped Vermonters' priority list. VNRC continued to provide environmental leadership at the local, regional and state levels — including a strong program of advocacy at the Statehouse and inside state government.

Land Use, Forestry, Agriculture

Opposing the proposed development of a massive 15,000-seat sports-arts complex intended to house the Volvo tennis tournament, VNRC argued that the facility (strongly supported by the Vermont Agency of Development and Community Affairs) would undermine community planning, environmental protection, affordable housing and the maintenance of agriculture and forestry in Vermont's economy.

All of these values were constant themes in the hearings of the 1988 Governor's Commission on Growth, where Vermonters repeatedly expressed concern about the potential conversion of Vermont's land and economy without regard for Vermont's traditional communities, land uses and economic activities. VNRC saw the Volvo proposal as a premier example of that potential conversion.

Although it began as a lone voice against the huge proposal, VNRC continued to point out the project's environmental threats and gained the support of many Vermonters and most state newspapers. By fall, Volvo pulled out of Vermont in favor of a more lucrative arrangement out of state.

On behalf of better economic policies that would actually strengthen Vermont's rural economy (including forestry and agriculture), VNRC Associate Director Ned Farquhar participated in the Governor's Commission on the Vermont Economy. VNRC advocated state support for rural industries that can viably compete with the land speculation and subdivision that so often accompany urban and recreational development in Vermont.

VNRC also stood up against a broad assault against local, regional and state agency planning as embodied in the 1988 Growth Management Act, Act 200. Although a new group of anti-planning protesters stirred up antagonism to Act 200 in many communities (with arguments characterized as "false accusations" by the Burlington Free Press), VNRC and other groups successfully stopped damaging amendments to Act 200 in the Legislature. Many towns "rejected" Act 200 — but most proceeded to plan in accordance with Act 200's goals and with assistance from the state and regional planning commissions.

In its local advocacy and educational work, which included assisting more than 30 local citizens' groups, VNRC continued to emphasize the merits of local planning as a key environmental protection tool. VNRC Land Use Associate Peg Elmer says, "Ironically, thanks to all of the anti-Act 200 publicity, local planning is getting better participation than ever. The message is that people want to protect local resources through planning."



VNRC also successfully opposed legislative attacks on Act 250, Vermont's 20-year-old land use law. Attacks included exempting municipal projects (such as landfills and sewer plants) and sand and gravel pits from environmental review, and requiring towns to buy any properties "devalued" more than 50 percent by zoning.

VNRC continued to review — and oppose proposals for a major recreational resort development Salmon Hole/Tamarack, in southern Vermont. Participating in Act 250 hearings at the district commission level, VNRC put forward concerns about water quality and habitat protection. The hearings were continuing at the end of June 1990.

With other concerned groups, VNRC worked to protect the Appalachian Trail from ski area expansion agreed to by the National Park Service in the last days of the Reagan Administration. VNRC cooperated with the Williston Citizens for Responsible Growth in opposition to the proposed Pyramid Mall — back on the Vermont scene after being rejected in the late 1970s. The proposed mall would induce growth and continue to erode environmental quality and the character of the rural community.

VNRC presented influential testimony in hearings on the draft Northern Forestlands report prepared by the U.S. Forest Service in response to land speculation in northern Maine, New Hampshire, Vermont and New York.

VNRC's Board of Directors adopted a policy statement opposing federal licensing of the bovine growth hormone, bovine somaotropine (BST). In hearings before Congress and the Vermont Legislature, VNRC said that the hormone could increase milk supplies and hurt marginal small dairy farms, particularly in New England.

VNRC worked on several issues that have brought the public trust doctrine to the forefront of legislative concern. In 1990 the Legislature appointed a study committee to review state programs allowing encroachments in public waters, water withdrawals and other uses of public resources.

Wetlands

With VNRC pushing every step of the way, the Vermont Water Resources Board adopted wetland protection rules designating 4,500 wetlands for

Critical to the discussion of wetlands protection was the issue of "mitigation" — whether developers can "re-create" a wetland to compensate for one they destroy. VNRC argued that wetland mitigation is widely unsuccessful. Although "compensatory mitigation" was left as part of the rules, VNRC's arguments led the Water Resources Board to adopt high standards of proof before a wetlands "trade" is approved. According to Board Chair David Wilson, "The most significant breakthrough that we had in the compensation discussion was the result of a witness brought by the VNRC. If the Board reached an epiphany on that issue, it was in that witness."

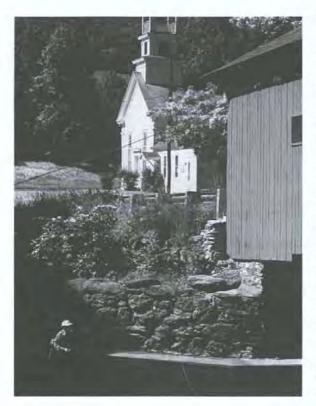
VNRC also raised concerns about the proposed development of a Rutland wetland for a regional shopping mall. As a party in Act 250 proceedings on the Rutland Mall, VNRC argued that Vermont wetlands must be protected from development and that "mitigation" proposals cannot replace vanishing and valuable wetlands.

Water

Protection of Vermont's waters is among VNRC's highest priorities. In 1989-90 VNRC worked toward special protective designations on the Battenkill River, Cobb Brook and several other rivers and streams. Additionally, VNRC entered Act 250 proceedings on the proposed Troy/Jay sewer plant to assure there would be adequate environmental protection and growth management to protect agricultural lands and prevent rampant subdivision and speculation after the sewer facility is built. VNRC also participated in the Water Resources Board's review and revision of Vermont's all-important water quality standards. Advocating new standards to prevent the unpermitted discharge of many industrial toxics into Vermont's rivers, VNRC urged strong-



STIR THE POT, WATCH HIM ... "



er protection of water quality. Additionally, VNRC strongly opposed proposals for **lake drawdowns** to eliminate Eurasian milfoil in Vermont lakes. Drawdowns damage fish, non-invader plant species and surrounding wetlands.

Wildlife

Under an agreement among ski developers, the state and VNRC, Stratton Mountain Ski Resort significantly altered its proposed **Sun Bowl** development, agreed to purchase and turn over to the U.S. Forest Service over 1,000 acres for a bear protection zone and to help fund a comprehensive bear habitat study.

"The bears won, and so did the other parties involved," says VNRC's Marcy Mahr. "We hope that our successful negotiations will set a precedent for resolving environmental issues in a non-adversarial way, before the regulations come into play."

Solid Waste

VNRC successfully urged the Vermont Environmental Board to enforce the requirements of Act 250 when, in early 1990, the City of Burlington proceeded to expand and line a **Colchester landfill** to receive Burlington's waste without a permit. The courts required Burlington to file for a permit.

VNRC also opposed the re-opening of the VIC-ON waste incineration plant in Rutland — a facility that is expensive to operate, possibly dangerous and an impediment to vigorous recycling because of its large appetite for trash.

VNRC helped draft important new legislation to establish a new hazardous waste program for Vermont, including a goal of eliminating or reducing the use of hazardous, particularly toxic, materials wherever feasible.

Energy

VNRC led a successful effort before the Vermont Public Service Board to require full and rigorous environmental review of the proposed **Champlain natural gas pipeline**, which would have run the length of Vermont. Recognizing the potential value of a new and relatively clean energy source for Vermont, VNRC also urged energy planning and growth management plans in association with the pipeline proposal.

VNRC was a party in key proceedings before the Vermont Public Service Board in the development of a new **energy efficiency** order that will require utilities to consider energy conservation prior to the construction or purchase of new generating capacity. The new order, known as docket 5270, could save Vermonters hundreds of millions of dollars and reduce dependence on environmentally dangerous and imported energy sources.

Transportation

VNRC began to put new emphasis on transportation planning at the state and federal levels, drawing together citizens in local efforts to improve state transportation planning and providing testimony at federal hearings on national transportation policy.

Environmental Administration

VNRC successfully advocated the adoption of new environmental **enforcement legislation** that increases the state's ability to catch and punish violators of state environmental laws. Until the passage of the law, civil enforcement was a slow and tedious process conducted only in the courts; now the agencies are vested with some enforcement authority, and the courts will focus on expediting review of environmental cases.

VNRC forged efforts to protect **funding** for important environmental programs — such as those of the Agency of Natural Resources, Act 250, the Current Use tax program and the Housing and Conservation Fund. In the tight 1990 state budget, environmental programs fared reasonably well.

Coalitions

VNRC worked closely with other groups — including human service, education, forestry and agriculture advocates — in several key coalitions.

VNRC co-chaired the new "Unity" coalition, bringing together state environmental and human service groups in support of fair tax policies.



"[VNRC] nailed the proponent of Vermont's biggest development threat right between the eyes the other day, and there's a whole slew of Vermonters in these parts who cheered..."

Kent Newkirk in The Bennington Banner



Celebrating our 25th anniversary in style: VNRC's Conservation Celebration was the largest environmental celebration in Vermont history.



VNRC: EDUCATION

"Environment Celebration Is Largest In Vermont History" was the headline the day after the VNRC-organized Conservation Celebration in September 1989. With the theme "Awareness to Action," wrap-up to VNRC's 25th Anniversary celebration had all the markings of a landmark event.

Over 2,000 people attended the day-long event on the Statehouse lawn, taking advantage of concerts, children's activities, and booths and exhibits offered by over 80 participating organizations. More than 40 workshops covered topics from water to wildlife, agriculture to energy and beyond — including forestry field trips and a trout release in the nearby Winooski River! At noon, conservationists thronged to hear a keynote address by Gov. Madeleine Kunin. And panel discussions throughout the day featuring state environmental leaders gave Vermont conservationists a chance to have a say on Vermont environmental policy.

"The Conservation Celebration was a celebration of a quarter-century of environmental education and advocacy," notes VNRC's Ned Farquhar. "But most importantly, it re-emphasized VNRC's long-time commitment to grassroots participation. And the great news is, thousands of Vermonters turned out to show that they're with us every step of the way!"

The Vermont Environmental Report, VNRC's membership magazine, also commemorated the Council's 25th Anniversary in style, with a special double issue on the highlights of Vermont environmental history. With articles by well-known conservationists as well as feature contributors such as Noel Perrin, Will Curtis and poet Mac Parker, the V.E.R. proved to have a wider appeal than ever — a first-ever newsstand sales attempt was a big success in selected bookstores across the state.

VNRC continued its tradition of useful publications with the **Citizen Involvement Kit.** Written in clear language for the layperson, this resource packet includes tips on how to address development proposals, guides to Act 250 and Act 200, facts on water and solid waste management and more.

The Council's popular Vermont Environmental Directory was also updated this year; the second edition includes over 120 pages of information on environmental groups, town, regional and state government, education programs and other items.

VNRC created and distributed a second edition of the useful **Growth Management News**, offering a clear, no-nonsense look at the Act 200 planning law. Requested at many town discussions statewide, the newspaper also featured descriptions of new planning techniques.

As the Vermont affiliate of the National Wildlife Federation, VNRC once again worked with the Vermont Department of Fish and Wildlife to distribute the popular **National Wildlife Week** Kits to every school in the state. Colorful posters and practical activity guides focused on "Predators" (1989) and Earth Day Every Day" (1990). VNRC also researched and distributed a resource list highlighting Vermont environmental educational resources.

VNRC's year-long 25th Anniversary celebration featured over 25 events, all geared toward educating and involving Vermonters in conservation. Among the highlights:

In January 1989, VNRC organized its annual Legislative Breakfast, co-sponsored by several other environmental groups, to gather Vermont legislators and conservationists together to discuss the environmental agenda for the upcoming legislative session.

◆ The 11th Annual Environmental Law Conference in January 1989, co-sponsored with Vermont Law School, explored land use issues and how they relate to "Growth and Taxes."

 VNRC joined with the Vermont Association of Realtors and two state agencies to reach hundreds of Vermonters with a January-March series of Vermont Groundwater Quality Seminars.

VNRC members enjoyed Vermont's winter environment with a February ski trip in Greensboro, as well as a ski/snowshoe/snowmobile exploration and land use workshop at the White Rocks National Recreation Area.

◆ Forest Land: Everyone's Resource to Manage was the theme that attracted dozens of southern Vermonters to a workshop in February on public and private forest land. Forest issues were also the focus of discussion at an April maple sugaring tour at Butternut Farm in Johnson .

Over 100 educators turned out in April for Controversy in the Classroom Teaching About Environmental Issues. VNRC played a key role in the organization of this annual conference of the



StateWide Environmental Education Programs (SWEEP).

 Planning for Open Space workshops were well-attended across the state throughout the summer, offering citizens insight into planning techniques for Vermont resource protection.

The Constitutional "takings" issue was explored at Balancing the Public Good with Private Property Rights, a workshop co-sponsored in August by VNRC and the Vermont League of Cities and Towns.

 Discussions and field trips to dairy, sheep and organic farms were the highlights of VNRC's Mettowee Valley Agricultural Day in August.

In addition to its annual Legislative Breakfast in 1990, VNRC urged members to Make A Capitol Investment at a January workshop focusing on citizen advocacy in the legislature.

 VNRC co-sponsored the 12th Annual Environmental Law Conference in January 1990 with Vermont Law School. It explored the issue of global warming and its potential effects on Vermont.

 Dozens of grassroots citizens' groups organizers got a chance to meet and inspire activists with their stories at the VNRC-organized Share the Spirit conference in February.

♦ VNRC played an active role in Vermont's celebration of Earth Day, 1990. The 20th anniversary of the dawn of the environmental movement was celebrated in fine Vermont village tradition, and VNRC was active in the coalition which coordinated grassroots efforts statewide. In addition, VNRC coordinated a day-long environmental fair in southern Vermont. At the Statehouse, VNRC organized displays to alert leaders to Earth Day events and concerns; and VNRC staff made environmental presentations at numerous gatherings throughout the

♦ Teaching in the Decade of the Environment was the theme of the second annual SWEEP workshop in May, and VNRC once again helped organize this popular gathering of science and environmental educators.

Sponsored by VNRC and a variety of other conservation and planning groups, the Wetlands: Decision Making at the Local Level workshop examined wetlands law and included field trip to explore wetlands functions.

◆ Other field trip and workshop topics throughout 1989 and 1990 included bear habitat, solid waste, rivers protection, and more. And Council staff met with citizens across the state in every season, for dozens of VNRC Conservation Workshops on topics of local interest.

Photo: Opposite page, enjoying the "Kidway" at the VNRC Conservation Celebration. Left, examining the milking machines at VNRC's Mettowee Valley Agricultural Days.

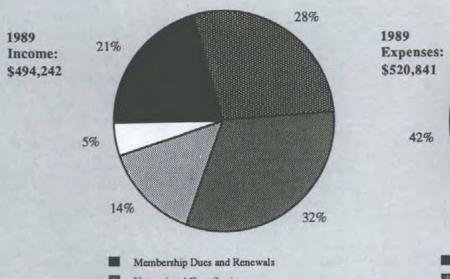


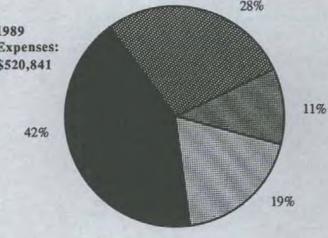
"Much has been written ... about the course of environmentalism in Vermont but this is the first and best long-term perspective I have yet seen..."

Former Governor Deane C. Davis on VNRC's 25th Anniversary Vermont Environmental Report



FINANCIAL STATEMENT, 1989





- **Unrestricted Contributions**
- Restricted Grants and Projects
- Interest and Dividends
- Other (Ads, Events, Etc.)

- Research, Advocacy & Lobbying
- Environmental Education, Publications & Events
- Membership and Development
- General Office and Organizational Activities

Q () was a year of extraordinary growth For VNRC. Membership grew 40 percent in 1989, including over 820 new members, and overall income was up 72 percent from 1988. Individual members and supporters accounted for 49 percent of the overall income. Foundation support greatly helped our efforts, including providing major support of the environmental Action Center and the Southern Vermont VNRC office. VNRC also received a \$10,000 bequest from a cherished long-term member, which went directly into our en-

VNRC kept expenses under control and exceeded income projections, yet there was a small deficit by the end of 1989, attributed directly to VNRC's intervention in the Champlain natural gas pipeline project. The VNRC Board of Directors paid off this deficit by borrowing from the endowment, and responded by approving a budgetary surplus in Fiscal Year 1991 to repay these funds.

During the first six months of 1990, VNRC experienced another surge in membership growth, adding over 700 new members to our ranks. Household membership, as of July, is well over 4,500. Thank you all for your continuing support!

In addition to membership support, VNRC was given an extraordinary anonymous gift with an estimated value of \$50,000 to set up a 10-year revolving fund for new membership acquisition programs. This fund will greatly add to VNRC's long-term health and viability.

The Board of Directors voted to change VNRC's fiscal year from the calendar year to a mid-year schedule, July 1 - June 30. This will enable VNRC's program directors to construct and evaluate budgets during a time of the year that is less pressured. Also, bookkeeping is now done in-house, which helps track our expenses and revenues more closely.

În addition to the continuing generosity of our members, VNRC received a number of private foundation grants in Fiscal Years 1989 and 1990. We would like to thank the following for their generous support:

American Conservation Association Jessie B. Cox Charitable Trust Eva Gebhad-Gorgad Foundation Five Twenty-Five Foundation Friendship Fund Lintilhac Foundation The John Merck Fund Norcross Wildlife Foundation **REI-National Rivers Coalition** Woodstock Foundation

VNRC is a 501(c)(3) non-profit organization.



(Continued from page 14)

preliminary engineering to widen and straighten the section in its work program for next year.

Chittenden County Circumferential Highway. This massive project was originally funded by the federal government some ten years ago as a model in streamlined transportation planning. Citizen input at Environmental Impact Statement hearings in the mid-1980s revealed a stormy future for the CCCH, however, and the Winter 1986 issue of the Vermont Environmental Report noted, "...many conservationists and residents feel that what is gained in speed could be lost through the highway's impacts on local communities, and would render Chittenden County's remaining countryside a sprawling suburb." Most of CCCH's original construction grant has been spent on design and acquisition, and enough money is currently left only to build one section by-passing Essex.

Bolton I-89 Interchange. Although this proposed interstate exit/entrance would have direct impacts on a wetland and prime agricultural soils, area citizens' larger concerns center on the the interchange's indirect effects on stimulating development in this rural area. The proposal would ease travel to the Bolton Ski Area, and two years ago the project seemed destined for construction. VNRC and the Conservation Law Foundation slowed the project's momentum by raising critical questions about the necessity of the project and its potential growth impacts. Currently the project awaits the outcome of the Environmental Impact Statement required through the VNRC/CLF intervention.

In central Vermont, AOT's plans for the Route 2 corridor have spurred citizens to action. After sev-

Above: Ironically, AOT calls for the straightening of one of the brooks on Crooked Brook Farm. Not as amusing: The farm is now on the auction block.

eral area residents requested VNRC's help, VNRC Action Center staff helped interested area residents organize the Route 2 Citizens' Alliance (R2CA).

"Many of our concerns about Route 2 are specific to this project," says R2CA member Dave Shepard of Middlesex. "But we feel that this proposal also reveals some of the classic problems of transportation planning statewide."

Major improvements to a 30-mile stretch of Route 2 between Montpelier and St. Johnsbury have been designed and constructed in segments over the last ten years. About ten miles are completed; another ten miles, including bypasses of villages such as Marshfield, Danville, Plainfield and East Montpelier, are in various stages of design; a final ten miles are in earlier stages of design. Evidently, since the Vermont legislature decided many years ago to focus on Route 2 as a major east-west corridor, the standards for improvement are high. Pavement width is at least 40' (wider where there are climbing lanes). With 50' of cleared area to either side, Route 2 will cut a wide swath through the countryside.

"These changes have been proposed and moved through the design process separately, a few miles at a time," explains Shepard. "This means that as a whole, the project hasn't seen an Act 250 review or an Environmental Impact Statement or any comprehensive analysis of whether it is needed — or wanted — by Vermonters."

AOT officials point to a Route 2 planning process in the early 1970s that involved polling drivers and "...we feel that this proposal reveals some of the classic problems of transportation planning statewide."

Dave Shepard Route 2 Citizens' Alliance Member from Arizona
shouldn't get any
surprises —
in order to be
safe, the road
should be
consistent."

"A driver coming

Vail Leach, Vermont Agency of Transportation organizing citizen workshops to discuss road-building options for the different segments. AOT's Long-Range Planning Engineer Vail Leach notes, "It might appear as if all we do is build roads - and that is what we're paid to do. But with these projects, the reason for the construction usually has to do with a road's deficiency in safety." Leach notes that the AOT uses highway standards agreed to by state highway officials nationwide. "A driver coming to Vermont from Arizona shouldn't get any surprises - in order to be safe, the road should be consistent."

R2CA members call for transportation planning that goes beyond safety. Members argue that good planning — and the law, through Act 200 — call for consideration of energy efficiency,

alternative transit, respect for Vermont's natural environment and traditional village centers. R2CA's mission is to promote a process which has "a comprehensive regional planning scope, and is socially, economically and environmentally responsible."

"We recognize that there are more Vermonters now, and that many roads need to be upgraded for safety purposes," says R2CA's Shepard. "But creating more roads in anticipation of more traffic can be a self-fulfilling prophecy."

Argues Shepard, "R2CA wants to see a process in place to help determine whether these roads are creating the Vermont we want to see in the future. We'd also like to see the AOT focus much more on creating alternatives to highway-building — mass transit, encouraging car-pooling and bike paths."

Through letters and meetings with local and state officials, R2CA has identified their key concerns with transportation plans:

Fragmentation of agricultural and forest land. Most Vermonters are familiar with a classic rural travel experience: having to stop the car while a farmer crosses cows from barn to pasture. But as traffic and road-building increase, underpasses, holding pens, and other devices are created in attempts to keep bisected farms in business. Stories abound, however, about tunnels built too narrow for farm equipment, or metal flooring that terrifies cows with the echo of their own hooves.

In her dealings with the AOT, Cabot farmer Jackie Folsom comments simply, "Most of their ideas were not really conducive to trying to farm." Although the previous owner of the farm had walked



Above: Route 2 Citizens Alliance members meet to discuss encouraging transportation planning that would consider the regional effects of road building. At right: R2CA is concerned that road building is unalterably changing the Vermont landscape.

his cows on the road for 45 years, improvements to Route 2 north of Crooked Brook Farm increased the quantity and speed of traffic, making it impossible now to walk cows on the road.

The AOT's plans for moving the Folsom's herd along the improved Route 2 were many and varied, but most were entirely impractical for the cows. Ultimately, the AOT's final proposal — to replace ten acres on the far side of the road with a parcel on the barn side — proved to be so slow-moving that the Folsoms put their farm on the market.

"It's too bad," says Folsom. "People travelling these roads like to see farms, but with these improvements planned, most of our offers are coming from developers." She adds, "We're looking to buy a farm way off the beaten track this time."

R2CA members note that road building and widening also take a toll on forest land and wildlife habitat, critical to wildlife as well as roadside beauty. For example, the proposed improvements to Route 2 in Cabot next to Marshfield reservoir will result in the removal of almost all of the stately pine forest that buffers the shoreline from the road.

Limited local and regional review. R2CA argues that large projects have a major influence on future land use patterns along the corridor. "The project should be planned, presented and reviewed

as part of a comprehensive regional transportation planning process," argued R2CA in a letter to Cabot selectmen. "The design of improvements should not be based solely on federal standards for speed and safety, but also be guided by social, economic and environmental costs."

Disruption of traditional landscape and economic vitality. Even transportation planners agree that improved access to the countryside means increased traffic. According to AOT statistics, Vermont's population increased by 14.6% between 1975-1987, while the number of miles driven in Vermont increased by over 50%. "One result of road improvement is that instead of focusing in village centers, growth is spread out — Vermont is seeing more commuters, and we're using more fossil fuels and increasing air pollution," notes R2CA's Shepard.

John and Jeanne Bernek, who have run the general store in Marshfield Village for 15 years, are active in R2CA because they see their livelihood threatened. And as importantly, note the Berneks, bypasses threaten a traditional Vermont lifestyle.

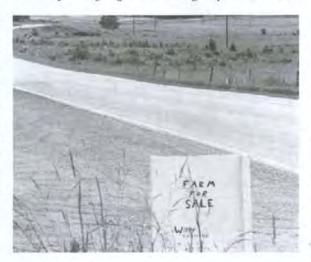
"Villages are what make Vermont what it is," notes Mrs. Bernek. "Our store is like the Chamber of Commerce — people come in with questions and we'll direct them to a restaurant, a garage, the local woodcarver, quiltmaker or other artist."

"I've started asking people who come to the store how they'd feel if the village were bypassed," adds Mr. Bernek. "Almost all of them say they'd hate it. They say, 'Are you kidding? We get off the Interstate and onto Route 2 just to come to these little villages.'"

"Vermont is a tourist state," agrees Ron DeVincenzi, the Chair of R2CA. "Tourists come to see our farms and villages, to stay in our local inns and visit our small businesses. These big fast roads will just get tourists out of Vermont as fast as possible," he argues, "and you know, it isn't as if Vermont's economy has steel mills to fall back on."

Questionable spending priorities. "We question the need for 8' wide paved shoulders, climbing lanes and 50' wide cleared areas adjacent to the highway," noted DeVincenzi in a letter to the Secretary of AOT. "Money and time spent on projects such as this take away from other transportation needs, such as bridge repair and rail revitalization. Only \$53,000/year is allocated for rail planning statewide. The East Montpelier bypass alone is a \$7-million+ project.

"We are concerned that our state's transportation planning has been based more on availability of federal funds than on need," wrote DeVincenzi. "We would like to see no more major expansion (bypasses) ... initiated for automobiles until after a directed effort to promote pooling of riders and bicycle/ pedestrian travel has been made." As R2CA works to alert the AOT to its concerns, its members are heartened. "At one point the AOT seemed to be saying, "This is just the way it's going to be," recalls John Bernek. "But now that people are all speaking together, the Agency seems to be



listening a little better."

AOT's Vail Leach admits, "We are hearing that citizens want to get involved, and they want us to take a sincere look at alternative transit — bikeways, greenways, integrating non-motorized travellers with motorized travellers, maximizing roads we have instead of building more. These are not what you'd say have been Standard Operating Procedure for the Agency. But if you look at our new Act 200 plan, you'll see a list that we've earmarked for analysis — it's a confession that yes, those issues are out there."

AOT's Tony Reddington notes that upcoming hearings on the Agency of Transportation's Act 200 plan will be an excellent point for public input. "The Council on Regional Commissions will review the plan in September and October, and there will be hearings on the revised plan in November," notes Reddington. "The schedule is available directly from the Council."

AOT officials, however, will still need convincing. Notes Leach, "If we put all of those changes into effect, you'd see as much of a change for the travelling public as a new highway would be — but in just the opposite ways. We don't know that the public is ready for that."

Is the Act 200 plan likely to change transportation policy? Leach draws a transportation analogy; "Our turn signal is on, but we haven't touched the wheel yet." Notes Leach, "How fast we turn depends on the push we get from the public."

Peg Elmer is Director of the Land Use Policy Program at VNRC; Susan Clark is VNRC Editor. "Apparently, the traditional Vermont countryside doesn't conform to the wider, straighter, more convenient roads that the AOT has in mind."

Jackie Folsom, Crooked Brook Farm

The new rules protect as "significant" 4,500 wetlands...Still, there are loopholes... development pressures threaten more wetland acreage now than at any other time in the recent past.



WETLANDS: THREATS AND **OPPORTUNITIES**

Case Studies of What's Happening Around Vermont

Steve Crowley

ust when you thought Vermont wetlands were safe from backhoes and bulldozers, you might need to think again.

Important strides in protecting wetlands were made earlier this year when the state Water Resources Board adopted rules implementing the state's four-year-old wetlands law. Wetlands advocates breathed a sigh of relief.

But no one should breathe too deeply and relax,

for if they do valuable opportunities the new wetlands rules offer might be lost — and with them thousands of acres of what are slowly being recognized as crucial components of our ecosystem.

The new rules protect as "significant" 4,500 wetlands, or about 4 percent of Vermont's land area. A "significant" area is designated "Class II," which offers important protection that federal wetlands regulations do not. The new rules protect as "significant" 4,500 wetulations do not.

Still, there are loopholes. And in fact, development pressures threaten more wetland acreage now than at any other time in the recent past. "As long as some view wetland conservation as subservient to the profit value of privately owned land," says VNRC Executive Director Ned Farquhar, "vigilance will be needed."

Efforts must be made to upgrade important areas to the more protective "Class I" designation, wetlands not now listed as such must be inventoried and classified, and everyone must be shown the impor-

tant functions wetlands play.

"We've seen important legislative and regulatory successes in the last few years," according to Farquhar. "The 1986 wetlands law, which VNRC lobbied hard for, set the stage for the passage of Vermont's new wetlands rules.

"Now we'll see the testing period. Vermont is making critical choices about what wetlands protec-

tion really means."

Those critical choices will be made on the state level, during regulatory reviews of development projects and during consideration of new or upgraded wetlands designations. But the efforts that will initiate protective action, and the information that will determine decisions, will first take place on the local level. That means active grassroots involvement is

Much is already happening. An update of some wetlands protection efforts is given in the "Perspec-

tives" section of this issue.

More detailed snapshots of what's happening in three locations might help to bring wetlands issues into sharper focus, though. Journey to Norwich, Benson and Dorset.

Norwich. Picture a shrubby swamp of several acres, lodged between ridges above the Ompompanoosuc River. Here, mountain springs and collected run-off soak the deep organic soils, nurturing a thick growth of water loving sedges, cattails and Spirea. It's not surprising to find a beaver lodge or muskrat den, and many different birds feed and nest in the shelter of the shrubs.

Wetland ecologist Jeff Parsons pulls a soil core sampler out of the muck and explains the chemical origin of the distinct color patterns visible in the sample. The assembled members of the Norwich Conservation Commission listen intently, because they will be applying these new techniques soon in

their own wetland inventory.

"This may seem to some like a superfluous wetland," says Parsons, "but the water soaked and stored in the soil pores is responsible for maintaining stream flows down the hillside. Imagine that the same thing is happening in hundreds of wetlands around the watershed, and you have a good idea of how a river like the Ompompanoosuc remains a river year round."

Commissioners take notes as they hear about identifying the functions and values of wetlands and about delineating wetland boundaries. Although their inventory will not substitute for a case-by-case



wetland investigation for large development proposals, it will be an invaluable tool for town planners and for real estate people and landowners who need to know what the town will consider when reviewing permit applications.

According to Norwich Wetland Project Chair Chris Rimmer, "This is only the first step. Our goal is to get some wetland protection provisions into our new town plan, which is being prepared right now."

Benson. Mark DesMeules, biologist for the Vermont office of The Nature Conservancy, leans over what looks like a cross between a pond and a mucklined bowl and scoops up a handful of organic sediment. He sorts it gently. Something moves, and close inspection reveals several inch-long salamand-

This place is loaded with these things," says DesMeules. "These temporary pools are the primary natural breeding grounds of all of the mole salamanders we have in the state of Vermont."

The statement is surprising because the mole salamander, like the familiar yellow-spotted salamander, seems common in local areas, and yet there are only a dozen or two of these "vernal woodland pools" in the entire state. Many have no names, known only by their locations. All are small - even the Dorset pool known as "Big Spring Pond" is less than an acre.

When the Vermont Wetland Rules took effect this February, vernal woodland pools were not mentioned as a distinct wetland type, in large part because of a last-minute reaction by a group of legisla-

"The 1986 wetlands law, which VNRC lobbied hard for, set the stage for the passage of Vermont's new wetlands rules."

Ned Farguhar Executive Director VNRC

 Wetland protection is watershed protection. Wetlands are not isolated resources; they are the purifiers and regulators of the watershed, a web of wildlife habitat. Wetland zoning and education is a key link in our stewardship of Vermont's natural

If every town in the state had one petition to

Steve Crowley is Director of VNRC's Water Quality and Wetlands Program.

The Vermont Wetlands Association (VWA) has been formed to promote a better understanding and appreciation of Vermont's wetland resources by encouraging the exchange of ideas, information and knowledge about wetlands. The VWA has run several field trips, and held an annual meeting and it publishes a newsletter. For more information, call Steve Crowley at VNRC or write to VWA, P.O. Box 433, Montpelier VT, 05601.

tors afraid that "every damp spot in the backyard" would be drawn into the state program. "Nothing could be further from the truth," according to Phil Nothnagle, DesMueles' partner in an ongoing research project on vernal woodland pools. He notes that these special pools have clearly defined qualities and functions unique to them.

When a subsequent amendment to the rules, including a definition of vernal woodland pools, was

> proposed in June, it again drew a heated response.

Dorset. "The Dorset Marsh is a great statement of the human history and the natural history of the town of Dorset," according to Marcy Mahr, program director for the VNRC Manchester office. An effort is underway to designate the marsh a Class I wetland - the

highest protection under the wetland rules - and to generate support for repairing the historic Vermont Marble Company dam at the southern outlet of the vast wetland.

The marsh is actually a diverse wetland complex, with maple swamps, kettle bogs, fens, emergent marshes and ponds that together form the headwaters of both the Mettowee River and the West Branch of the Battenkill. It rests among glacial kettles, eskers and morraines, all atop limestone bedrock, encouraging an unusual mix of wetland botany.

The Dorset Citizens' Group has long recognized the importance of the Dorset Marsh. Several parcels are already set aside as part of the Dorset Land Trust, and the group is now preparing the Class I petition.

However, not all Dorset citizens agree on the value of wetlands, even one as special as the Dorset Marsh.

In the spring of 1990, not more than a few months after the state wetland rules took effect, a landowner along the eastern edge of the marsh had fill from a nearby construction project dumped into his corner of the wetland. State wetland officials were notified, and they informed the landowner the wetland should be restored. The construction company offered to remove the fill at no charge. As of this writing, however, the landowner has refused to budge; visiting state officials have been met by riledup legislators and other officials.



"As long as some view wetland conservation as subservient to the profit value of privately owned land, vigilance will be needed."

Ned Farguhar

The Dorset Marsh will probably be set on the

road back to recovery, at least in part because it is so

highly valued by members of the local community.

The new wetland rules offer an initial framework of protection. The rules prohibit draining, dredging and filling of significant wetlands, as identified on the National Wetland Inventory (NWI) maps. Such activities can be allowed, pursuant to a "Conditional Use Determination," provided that the wetland functions are not impaired. Wetlands can also be re-designated by petition to Class I (highest level of protection, 100-foot buffer zone), Class II (significant, on the NWI maps, 50-foot buffer), or Class III (not significant, not protected). An organization that has 15 members — or any 15 people — can bring a petition. Significance, or classification, is based on the functions a wetland carries out in its environ-

What's Ahead?

One thing is clear. There has never been a better time for wetland advocates around the state to make their interests known.

Here are a few elements of a wetland promotion program for advocates around Vermont:

- can't observe every wetland. Local eyes and ears can make the state program work. An inventory, like that in Norwich, will make a great up-front contribution.
- world. designate a new Class II wetland, and every county were to see a Class I petition, the message would be very clear that Vermonters care about wetlands. •



"This travelling stuff is for the birds. Do you know of any nice, quiet nature centers in the area?"

This bird needs a copy of the Vermont Environmental Directory. Over 100 pages of addresses, phone numbers and descriptions of Vermont's private environmental organizations—nature and environmental education centers, land trusts, advocacy groups, and many other organizations. And the Directory also includes complete state government contacts for environmental concerns, college environmental programs, national contacts, and much more.

Available from the Vermont
Natural Resources Council
(VNRC), 9 Bailey Ave., Montpelier
VT 05602. Price: \$5 each for VNRC
members, \$10 each for nonmembers, plus \$1 per book
postage and handling. Every
nature-lover should have one.

EARTH DAY T-SHIRTS! \$5.00



Mary Azarian print with a Thoreau quote on a 100% cotton t-shirt, white or ecru. Available in S,M,L,XL.

Available from Jackie Tuxhill at (802) 775-0584 or Dan Barry at VPIRG (802) 223-5221.

THE FAIRBANKS MUSEUM AND PLANETARIUM

Main Street, St. Johnsbury, Vermont

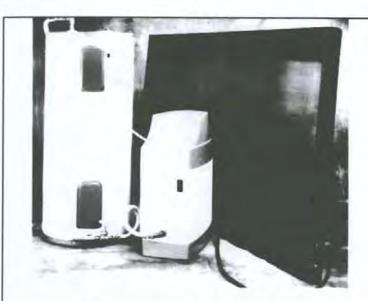


An historic Victorian building filled with exhibits and collections of the familiar and the exotic. Featuring exhibits and programs on natural science, rural history, astronomy, and the arts, the Fairbanks Museum has something for everyone.

The Museum is home to the Northern New England Weather Center, and features northern New England's only public Planetarium, a fascinating Hall of Science, and special exhibitions.

Open daily. Planetarium shows each weekend, daily during July and August. (802) 748-2372

IN VERMONT'S BEAUTIFUL NORTHEAST KINGDOM



Protection from the Sun

Introducing the Solar Boiler™ -your protection against the rising cost of energy. This state-of-the-art solar appliance uses clean, renewable solar energy to provide hot water. cutting your water heating bill by two-thirds. While the Solar Boiler' protects your budget. it also helps protect our environment. Over its lifetime it will reduce the production of air pollutants that cause acid rain and global warming by over 10 tons. The Solar Boiler," protection for you and the planet.

The Solar Boiler' comes complete for \$1,850' with all necessary hardware for installation and a 10-year warranty on collectors and heat exchanger.

Call or write today for details.

SOLAR WORKS

64 Main Street Montpelier, VT 05602 1-800-339-7804 (in VT) 1-802-223-7804

*SB56 system complete with two 4 x 7 collectors and 60 gallon storage tank; installation extra.

THE POULTNEY RIVER A Citizen Involvement Success Story

Sylvia Plumb

"The end result is not only a petition which we hope will protect a 22- mile stretch of the Poultney, but also an informed, educated and interested citizenry."

Joanne Calvi Friends of the Poultney River hen Joanne Calvi, a Public Health Nurse, and other members of Friends of the Poultney River started working on a petition to reclassify the Poultney River as an Outstanding Resource Water (ORW), they had no idea how large their project would turn out to be.

"We have spent a great deal of time educating ourselves — and the citizens of Fair Haven and West Haven — about the resources of the Poultney River," says Calvi. "The end result

is not only a petition which we hope will help protect a 22-mile stretch of the Poultney, but also an informed, educated and interested citizenry."

The Poultney river originates in Tinmouth, Vermont, and flows through the towns of Middletown, Poultney, Fair Haven and West Haven before emptying into Lake Champlain, some 40 miles from its point of origin.

In preparing the petition Calvi and her group learned about many different characteristics of the river corridor, including the archaeological and geological importance, the natural resource areas, and the uses of the Poultney River. They found what they had known by instinct all along: the Poultney River and the corridor which surrounds it are truly an outstanding natural resource worthy of their conservation efforts.

"I was amazed at how much we learned," said Calvi. "The river harbors 55% of the known fish species in Vermont — five species of which are rare — as well as all 14 of the known species of fresh water mollusks in Vermont. The 22-mile corridor is



unique because 95% of it is undeveloped."

The corridor hosts a number of natural areas such as important wetlands like Cemetery Cedar Swamp, Schoolhouse Marsh, and geological areas such as Limestone Cliffs and Carver's Falls — the largest falls in Vermont.

The corridor is also home to the Poultney River Folds. These folds are rock ledges which fell over; the river has since washed away the topsoil, revealing 500 million years of history horizontally — that can be walked upon.

The river is used on a yearly basis for research by Middlebury College, Castleton State College and the State University of New York. Historians are also interested in the corridors role in the Revolutionary War — this section was a crossing for the Hessian soldiers. Other uses include boating, canoeing, fishing and swimming.

The ORW petition began as a direct result of a possible landfill siting along the banks of the river. After a public meeting held by the town, concerned citizens including members of the Research Com-

CITIZEN ACTION

mittee of the Fairhaven Historical Society, got together and began to look into possible avenues of protection. They found reference to the ORW — a classification created in Vermont law in 1986. No Vermont river is yet classified as an ORW. ORW status can protect a waterway from some hydro and stream bed development, as well as emphasize community support for the river's protection.

"At this point we asked ourselves, 'well, are there values to the river other than historical and geological values that we already know about?' " says Calvi.

Their next step was to go to the Vermont Agency of Natural Resources. "The ANR was very encouraging," says Calvi. "We discovered early on that an ORW might not even be able to prevent a landfill siting on the river, but we decided to go on for other reasons. The information we gathered through the ORW petition process will help others acknowledge and recognize the importance of the river.

"A study that was important to our petition process was a fish inventory of the the Poultney River. It was funded by a grant from the Department of Fish and Wildlife's Non-Game fund," says Calvi.

The Friends of the Poultney River are already seeing the affects of their work. The application of lampricide to the river was postponed until further study because of the effects the chemical might have upon the fresh water mollusks found in the river. The river has been labeled a high-diversity mollusk habitat.

Calvi claims the success they have had with the petition is a result of the level of citizen involvement they achieved. "From the start we tried to get a group of local people involved. We went to the land owners along the river in order to let them know what we were trying to do. We gave them a packet of information explaining the ORW classification. It was important to keep them informed so that everyone knew what was going on," notes Calvi.

"We gathered information from the users of the river such as fishermen and trappers. We also had canoe trips — people from the Agency of Natural Resources, The Nature Conservancy and the Vermont Heritage program, led them. Citizens interested in one aspect of the river could learn about and become interested in other aspects. It was fun, and really a source of pride," exclaims Calvi.

"In natural areas protection work," Calvi notes, "You need to inventory every discipline. If you only look at the flowers in a field then you are missing out on everything else. It is really interesting to take a small area such as a stream, a pond or a farm, and

find out everything about it that you can," says Calvi. "Contact centers of expertise on the history, the archaeology, the geology, the natural areas, the fish and wildlife and the uses of the land."

The Friends of the Poultney River group is now waiting for a hearing date on the ORW petition. In the meantime, they are interested in starting a town Conservation Commission. Calvi mentions that there is another river in town which they would like to take a look at.

Calvi cautions that "it's a lot of work. It is good to



Joanne Calvi

'In natural areas

protection work

inventory every

only look at the

flowers in a field

then you are

missing out on

everything else."

discipline. If you

you need to

Volunteers gather data as part of the Poultney River fish inventory.

have a core group working on the project — such as a Conservation Commission, or the PlanningCommission or the town historical society. We are also trying to get the school involved. This project has just been so exciting." •

River Resources: Anyone interested in rivers protection can get more information from Michael Kline at the Vermont Rivers Assistance Program, Water Quality Division, Agency of Natural Resources inWaterbury at 244-6951 or VNRC at 9 Bailey Avenue, Montpelier, Vermont 06302 or phone (802) 223-2328. If you are interested in preparing an ORW petition, a copy of the Poultney River petition is available from Joanne Calvi at 265-8032 or Betty Allen Barnell at 265-3231. Copies of the Battenkill petition as well as other petitions are available from the Southern Vermont Office of VNRC, 362-3113.



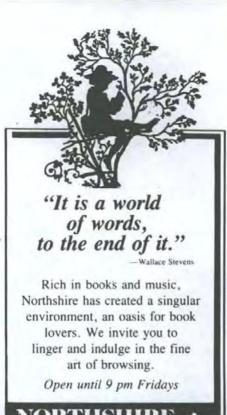


P.O. Box 116 Greensboro, Vermont 05841

Always A Supply of Good Used Saabs, Subarus, and Other Quality Imported Cars

"Imported Cars Are Not Foreign To Us" ...







Socially Responsible Investing.

Manchester Center, Vermont 05255 Open 7 days (802) 362-2200

You don't need to compromise your beliefs to invest effectively We offer investment opportunities that consider social and environmental issues.

Let Robert Guthrie introduce you to financial products, services and information with a social conscience.

CALL TOLL-FREE IN VERMONT: 1-800-642-3138 NATIONAL: 1-800-272-3040



126 College Street Burlington, VT 05401

(802) 864-8000

VERMONT ENVIRONMENTAL REPORT

VNRC NEWS & NOTES

ANNUAL MEETING — AND GUBERNATORIAL DEBATE

Meeting Highlights Wetlands and Debate on Environmental Issues

/NRC's membership is invited to the 1990 Annual Meeting, to be held Saturday, September 22 at Burr and Burton Seminary in Manchester, beginning at 9:45 a.m. The keynote address, "Creatures From the Black Lagoon: Why are Wetlands Important?" will be given by Dr. Richard Villamil of Trinity College. Following the meeting, VNRC will sponsor a Vermont gubernatorial candidates forum on environmental issues. The forum, open to the public, will include opening and closing statements by the leading candidates, with 40 minutes of questions from a panel of Vermont journalists.

The morning will be filled with four workshops: "Battenkill Exploration," which takes a look at river protection using the Battenkill as an example; a slide show, "The Bear Necessities," which examines the habits and habitats of Vermont's elusive black bear and shows the need for action to ensure its survival; a field trip to UVM's Pew Forest to discuss land use history and current issues in forestry; and "Dorset Marsh," which hosts wetland experts as they take an in-depth look at this extensive and diverse wetland habitat.

Everyone is invited to participate in one workshop and then enjoy a catered lunch (or a brown bag lunch brought from home) to the lively tunes of The Wilder Singers, a small ensemble that sings about environmental issues. SP



VNRC staff. Back row: Steve Crowley, Marcy Mahr, Rebecca Sheppard, Ned Farquhar, Peg Elmer, Diane Newton. Front row: Deb Crespin, Sylvia Plumb, Jim Shallow, Marie Frohlich, Susan Clark and Keesh. Missing: Mary Morrison.

VNRC WELCOMES NEW STAFF And Other In-House Changes

NRC has seen a few changes in personnel at both offices since the last issue of the V.E.R. We have a lot of new faces as well as some new titles, positions and projects for the old crew.

Ned Farquhar, VNRC's new Executive Director, moves up from his duties as Associate Director, a position he has held since August 1988. Ned came to VNRC with a strong background in natural resource management, legislation and policy. He worked in Alaska as Special Assistant to the Commissioner of the Department of Natural Re-

sources and later as Aide to the House Committee on Natural Resources. No stranger to Vermont, Ned graduated from Middlebury College. He was a 1980-81 Thomas J. Watson Fellow, studying the effects of resource development in northern areas including Scotland, Norway and Newfoundland, and he holds a Masters Degree from Cambridge University in England.

The Southern Vermont Office has seen a change in leadership as well. We are sorry to say goodbye to **Seth Bongartz**, the Associate Director of the Southern Vermont Office for the past year and a half. He took the lead on many important environmental issues in southern Vermont, fighting the Volvo sports and arts complex and the

VNRC NEWS & NOTES

Rutland Mall. Seth, who has joined the law firm of Witten, Saltonstall and Woolmington, leaves VNRC with our best wishes.

Marcy Mahr succeeds Seth as Director of the Southern Vermont Program. Marcy has worked as the Southern Vermont Research and Administration Coordinator since July 1988. Assisting Marcy in Manchester is Diane Newton, a native of Jamaica, Vermont, who has been hired to take over Marcy's position as Southern Vermont Research and Administration Coordinator. Diane received her B.S. in Environmental Studies from the University of Vermont and has been serving as the spokesperson for the Friends of Cobb Brook since its that group began a year ago.

VNRC welcomes Sylvia Plumb as Information and Education Assistant. She came to VNRC in January. She is a graduate of Connecticut College and a native Vermonter. When she is not spending time in front of the computer at VNRC, she enjoys singing as well as the wonderful hiking and x-country ski-

ing that Vermont offers.

There is a new face (and voice) to greet you at VNRC — Marie Frohlich, our new Office Manager, who comes to us after three years abroad in Denmark and the Middle East. She is currently building a house in Williamstown; she and her husband Bruno and 2-and-a-half-year-old twins are roughing it until the house is built. Marie enjoys gardening.

We also have a new Bookkeeper, Mary Morrison. Mary, an East Montpelier resident, comes to VNRC with ample bookkeeping experience. She enjoys bowling, sailing and warm

weather. SP

VNRC'S WISH LIST Furniture Restorer Needed

VNRC hopes to find a friend interested in furniture restoration to rehabilitate an antique desk in our Montpelier office. If restoring isn't boring, please call 223-2328 to help. NF

RESOURCE CONSERVATION PROGRAM

VNRC Introduces New Program

NRC has created a new Resource Conservation Program to address forestry, wildlife and public land issues in Vermont. The new program will be run by Jim Shallow, who has been with VNRC for a year and a half assisting the land use program.

According to Shallow, "This new program will help people pull together to work on coordinated responses to threats to our forests such as fragmentation by subdivision, acid rain and other pollutants. We're feeling the effects not only in species reduction in our forests and streams, but also in traditional Vermont activities like forestry, hunting, fishing and hiking.

"Right now we have a great opportunity because the Northern Forest Lands Study generated tremendous public attention on the change in forest

ownership and use.

The study is done, and now people are looking for action to save the forests. This program will give us the ability to not only respond but be proactive by pushing for legislative action."

UNEXPECTED GIFT HORSES

Recent Financial Blessings

NRC will be able to bring our message to a wider audience, thanks to an extraordinary gift from an anonymous donor. The gift set up a ten-year revolving fund to aid new membership programs. This fund, with an estimated value of \$50,000. will be self-sustaining: expenses will be withdrawn to pay program expenses, and income received from new members will replenish the fund. Sarah Muyskens, Chair of the Board's Membership and Development Committee, commented, "This revolving fund will make a difference to VNRC's longterm health and viability. VNRC is always interested in attracting new members to our cause, and this gift really bolsters our membership efforts."

Another unexpected and delightful gift opportunity has come VNRC's way: a new mail-order catalog carrying Vermont products and services will donate five percent of catalog sales to VNRC. "The Best of Vermont — Celebrating 200 Years" is a 36-page publication that will market Vermont crafts and products throughout the United States. DC

CREATIVE PLANNING TECHNIQUES

New Slide Show Available

Communities, organizations and individuals can now visualize the range of creative options for developing and implementing a town plan thanks to a professional-quality slide presentation, accompanied by script, available through the VNRC office.

VNRC's Peg Elmer worked with a George D. Aiken Resource Conservation & Development District (RC&D), Vermont Extension Service, state agency and regional planning commission

staff to produce the show.

Using Vermont examples, the slides show the need for planning, basic growth management concepts, creative land use strategies (both public and private), and advantages and methods

of public participation.

The show can be purchased, along with a resource packet of planning information, from the George D. Aiken RC&D (telephone 802-728-9526). It is available on a seven-day loan basis from our Montpelier office, 9 Bailey Avenue Montpeleir, VT 05602 (802-223-2328) with a \$5 fee to cover postage, insurance and handling. **PE**

VNRC NEWS & NOTES

1990 VNRC BOARD NOMINATIONS

Announcement Made For September 22 Annual Meeting

The VNRC Board of Directors has approved the following nominations for election to the Board at the September 22 annual meeting:

Individual nominees:

Thomas Rawls, an incumbent director from Bristol. Rawls is the Editor of Harrowsmith /Country Life magazine.

Kit Anderson, an incumbent director from Grand Isle. Anderson is the Executive Director of National Gardening Association of Burlington.

Sarah Muyskens, an incumbent director from Burlington. Muyskens, VNRC's Treasurer, is an independent consultant to non-profit organizations.

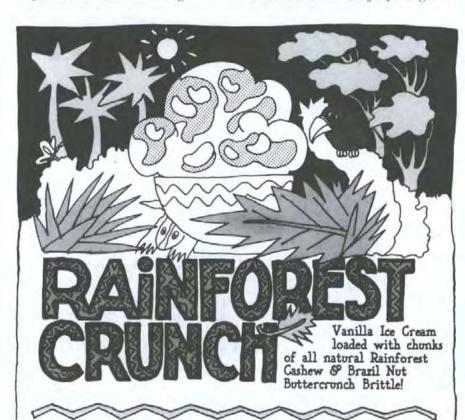
William Roper, a new board member of Middlebury. Roper is an attorney with Neuse, Smith, Roper and Venman in Middlebury, and is active in conservation.

Terry Ehrich, a new board member from Bennington. Ehrich runs Hemmings Motor News, and heads up a group of environmentally concerned businesspeople in Vermont.

Brendan Whittaker of Maidstone, a former VNRC Board member who now rejoins the Board. A former Vermont Secretary of Environmental Conservation, Whittaker is a minister, farmer and forester in the Northeast Kingdom.

Organizational nominee:

Bob Hoffman of Barnet. Hoffman is the President of the Vermont Trappers Association.



Money from the purchase of these nuts will help Brazilian forest peoples start a nut-shelling cooperative that they'll own & operate. Rainforest Crunch helps to show that the forests are more profitable when their nuts, fruits & medicinal plants are cultivated for traditional harvest than when their trees are cut & burned for short term gain.

BENGJERRYS VERMONT'S FINEST ALL NATURAL ICE CREAM.

CORRECTIONS

Errors Made In Legislative Report

VNRC has been informed of several errors in the 1990 Legislative Report issued in the Spring/Summer 1990 Vermont Environmental Report:

Votes by Rep. William Talbott (on H.648 and S.378) were reversed.

Descriptions of the first two Senate votes were reversed.

Some representatives' voting records were inadvertently omitted, and the name of one legislator was incorrect.

We apologize for the errors, committed in the speedy effort to provide our readers with this information soon after the completion of the legislative session.

Bulletin Board

September 6, 13, 27 and October 4 and 11

VNRC conducts a workshop (repeated five times) about the fiscal impacts of development. This workshop is based on the study and workbook, **The Tax Base and the Tax Bill**, produced by VNRC in conjunction with the Vermont League of Cities and Towns. Fee: \$15.00 (includes copy of workbook). Time: 7:30-9 p.m. Preregistration required. For more information call VNRC at (802) 223-2328.

September 22

Don't miss VNRC's annual meeting at Burr and Burton Seminary in Manchester, beginning at 9:45 a.m. It features workshops on wetlands, forestry, rivers protection and black bears. Enjoy a catered lunch or bring your own. Special post-meeting feature: Gubernatorial Candidates Debate on environmental issues. For more information contact VNRC at (802) 223-2328.

November 3

Come to The EarthRight Institute's (ERI) 3rd Annual Auction. Items previewed at 7:00 p.m. and auctioned at 7:30. Refreshments served and entertainment by Jon Gailmor. Proceeds will benefit ERI. For more information call ERI at (802) 295-7734.

September 28-30

Come to the The New England Environmental Education Alliance 24th Annual Conference.

This year's theme is Going for the Gold: Excellence in Environmental Education. Three days of workshops, field trips and entertainment at Rockywold Camp on Squam Lake in New Hampshire. Overnight accommodations available. For more information contact Lori Jean Kinsey at Tin Mtn. Conservation Ctr., PO Box 1170, Conway, NH 03818. (603) 447-6991.

November 17

Join us from 9:00 a.m.- 2 p.m. for our second annual citizen action workshop! A day for citizens interested in local environmental advocacy to share knowledge, resources and enthusiasm. Presentations and how-to sessions led by representatives from Vermont's

grassroots citizens groups. \$5.00 registration fee; pre-registration is appreciated. Contact VNRC at (802) 223-2328 for more details.

December 3

Learn how public trust law may affect Vermont's environmental future. Meet at the Lake Morey Inn in Fairlee from 8:30 a.m. - 5:00 p.m. for the 13th Annual Environmental Law Conference. The topic of this year's conference is Public Trust Resources: Protection Required By Law.

Speakers will attend from around the U.S. and New England, describing applications of the public trust doctrine to protect public access and ecological values. Co-sponsored by VNRC and the Environmental Law Center of the Vermont Law School. VNRC members will receive flyers in the mail this fall. For more information contact VNRC: (802) 223-2328.



New England Forestry Foundation

85 Newbury Street, Boston, MA 02116

WOODLAND MANAGEMENT and FOREST PROTECTION Regional Offices:

Mitch Kihn - E. Barnard 763-7684 Charles Richardson - W. Dummerston 254-6963 John Lareau - Manchester 362-5231 Kendall Southard - Brattleboro 257-4830

~ 14		Charles N. B. C.
1 May	VI	NRC Helps
Last of the		ep Vermont
K K K	1	Green
1/5/8	1 8 m	
Jane 1	T) or your	your membership — gift membership to a
The !	fr	iend — helps us do it!
3 / / / / /	ame	
- · · · · · · · · · · · · · · · · · · ·	.ddress	
T	own, State, Zip	
P P	hone	
W(1, U)		
1 1 1	enclose a check for the follow	wing type of membership:
Comment !	☐ Individual: \$25	☐ Business (1-25
17	☐ Family: \$35	employees): \$50
01	☐ Sustaining: \$50	☐ Business (over 25
1 1	□ Non-profit Org.: \$30	employees): \$100
DY		☐ Limited income: \$10
Membership	includes a year's subscription	to the Vermont Environmental
	contributions are tax deductible	
to VNRC an	d mail to 9 Bailey Avenue, Mon	tpelier, Vermont 05602.

Better **Planet** Books



ENVIRONMENT • NATURE • OUTDOOR RECREATION. GARDENING • COOKING • HEALTH • HOMESTEADING • CHILDRENS BOOKS

Send S.A.S.E. for our FREE list of carefully chosen titles: Enrich yourself or give a gift book to someone you care about.



"Identify yourself as a VNRC member and Better Planet Books will donate 10% of your initial order to VNRC." Fred Kosnitsky, owner

Better Planet Books, P.O. Box 1263, Montpelier, Vermont 05601

WOODBURY'S NEW WEEKEND PLANNING PROGRAM...

- is designed for people who wish to provide leadership roles as Vermont develops its plans for the future;
- acquaints students with the major issues and processes involved in Act 200 and Act 250;
- teaches the tools and techniques of land use planning;
- holds classes on weekends.

In addition to the one-year curriculum, Woodbury offers workshops which are open to the public. Weekend classes begin September 15; weekday classes begin September 10. For more information about these and other programs at Woodbury College, call Maggie Valentine at Woodbury at any time!



C.O.L.L.E.G.E 660 ELM STREET MONTPELIER, VT 05602 802-229-0516 800-639-6039

Other Programs Offered At WOODBURY COLLEGE:

- Mediation
- Counseling/ Human Relations
- Paralegal Studies



VERMONT INSTITUTE OF NATURAL SCIENCE

11th Annual International Exhibition and Sale of

DLIFE ART

SEPTEMBER 29 - OCTOBER 14

1990

OPEN DAILY 10 to 5 ADMISSION FREE

VINS is 11/2 miles up Church Hill from the Woodstock Green

The Vermont Institute of Natural Science, Woodstock, Vt. 05091 (802) 457-2779

V.E.R. Hot Spots

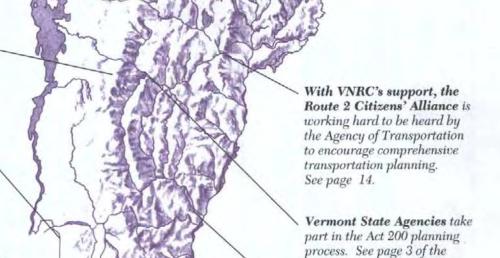
Application of the Public Trust Doctrine is a growing issue. This time it concerns snow-making by Sugarbush in the Mad River Valley. See page 6.

The Friends of the Poultney River have submitted a petition to classify a 22-mile stretch of the Poultney as an Outstanding Resource Water. See page 22.

Manchester is the location for VNRC's Annual Meeting It includes workshops, field trips and a performance by the Wilder Singers. See page 25.

VNRC is hosting a **Gubernatorial Candidates Debate** on environmental
issues at the annual meeting in

Manchester. See page 25.



Vermont's new wetlands rules have the potential to protect our wetlands. See page 18 for a briefing on three of Vermont's fascinating wetlands, including a wetland in Norwich.

Vermont Perspective section.



Vermont Natural Resources Council 9 Bailey Avenue Montpelier, Vermont 05602 Non-Profit Org. U.S. Postage Paid E. Barre, VT Permit No. 2