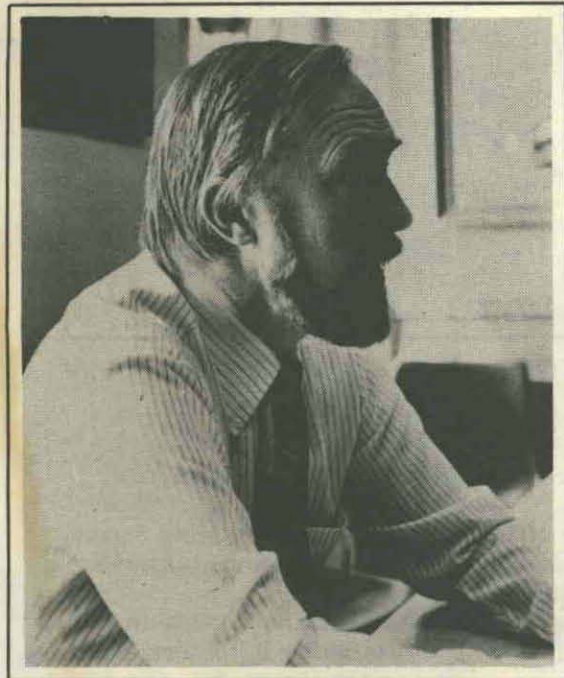


Vermont Environmental Report

September/October 1982

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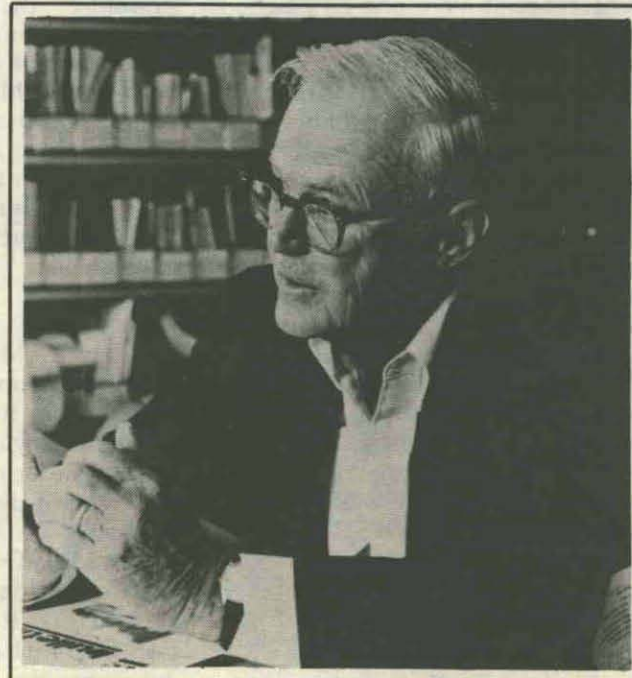
Vol. 3 No. 5



Tom Arnold

The Good Guys Versus the Good Guys

Charles Ross
and Tom Arnold
on PURPA, FERC
and Small-scale Hydro



Charles Ross

In 1978, Congress passed the Public Utility Regulatory Policy Act (PURPA), a law designed, in part, to stimulate the development of renewable resources and co-generation for electric power production. "Alternative energy" advocates hailed the law as a major breakthrough in weaning America of its dependence on non-renewable fossil fuels and nuclear power. But many conservationists, including Charles Ross, former member of the International Joint Commission, ex-chairman of the Vermont Public Service Commission, and Chairman of VNRC's Energy Committee, think that PURPA "over-encourages" small-scale hydroelectric generation without adequate environmental safeguards. Like so many discussions of small-scale decentralized power production and the environment, the PURPA controversy seems to pit the "good guys" against the "good guys." Two white hats -- Charles Ross and Tom Arnold, Director of the New England Rivers Center -- met at VNRC in late August, and this is what they had to say:

MM: "Tom, could you give us a little background on PURPA and explain its effects on small power producers?"

TA: "Okay. What happened was, in 1978, President Carter developed an energy program which was adopted by Congress, and the statute that implemented it was called the Public Utility Regulatory Policy Act (PURPA). It's a very complex law, but one of the things it does is to try to stimulate development of indigenous energy resources like hydro, wind, solar, biomass and co-generation. It does this by first, guaranteeing a market: it says that a utility company must buy power from someone who meets certain

criteria in the statute. And second, it sets a price at which the utility must buy that power. Now that takes care of the two biggest problems which developers in the past have had, which is that a private utility company, like Boston Edison, or Public Service of New Hampshire, was under no legal obligation to buy the power. If they did buy it, they usually did so at a very low rate, which meant that few developers were interested."

"Section 210 of the statute which Congress passed in 1978 listed three factors which had to be taken into account in deciding what the price would be: it must be just and reasonable to the consumer and in the public interest, it must not discriminate against qualified co-generators and small power producers, and in no event shall Federal Energy Regulatory Commission (FERC) rules provide for a rate which exceeds the full avoided cost to the utility (the cost the utility would have had to pay to buy the power somewhere else)."

"Now what FERC did in its regulations was to say that in all cases, the small power producer was entitled to the full avoided cost. That issue went up on appeal to the U. S. Court of Appeals in Washington. And in January, the D.C. Circuit said that you can't require utilities to pay the full avoided cost in every instance, because Congress said there were three factors that had to be balanced, and you can't say that when you balance the public interest and the need of the consumer that you necessarily charge the full avoided cost. So the utility companies, after January of 1982, had much more bargaining power when they were negotiating contracts with small power producers. As a result, the hydro development push

has really slowed down substantially."

CR: "But Tom, aren't there two bills pending which would require utilities to pay that cost?"

TA: "That's right. HR6500 and S1885 would require utilities to pay the full avoided cost. Now, there is another provision of interest to environmentalists in HR6500 which says that those costs and some other economic incentives would only be available to a developer who is reconstructing an existing dam site."

"I should say that PURPA provides a lot of other financial benefits. In addition to guaranteeing a price at the full avoided cost, PURPA also provides a significant tax credit of 21% of the investment. What that means is that if I'm an investor, and I put \$100,000 into a hydro project, I get a tax credit of \$21,000 which I can then apply against any other tax that I may owe. PURPA also changed the depreciation schedule. In the past, you could only charge off the value of your plant over the life of the plant. In other words, if I had a hydro plant which has a 40-year life, I could only charge 2½% of my invested capital per year as a deduction for depreciation in value. Under the new law, you can charge your depreciation off entirely in five years, which means that if I invest, again, \$100,000, I can get \$100,000 in deductions on my tax return in the next five years. The result of all this change in the law under PURPA has been a big explosion of interest in hydro development. And that's really what's been pushing it. It's not that people like hydro, it's that the developers and their financial backers have some real economic incentives to develop it."

CR: "In addition, was it under

PURPA that certain requirements were waived for so-called small-scale projects, and would you explain the significance of the treatment of small-scale hydro?"

TA: "Okay. If you have a project of five megawatts or less, you can be exempt from the entire hearing process at FERC. You merely come in and make a demonstration that you won't have a significant effect on fisheries and other types of natural resources and you get an exemption. This is not the same as a license; it is a determination by FERC that your project meets certain statutory requirements and you don't need a license to develop it."

MM: "That five-megawatt limit takes in a pretty good chunk of the small-scale projects that have been proposed in Vermont, doesn't it?"

TA: "Sure. It takes in the vast majority of them."

CR: "You see, Tom, the thing I'm concerned about is that these tax credits have increased the demand automatically and made hydro very attractive—more than the free marketplace would have otherwise. And on top of it, there seems to be an attitude that any project under five megawatts cannot harm anything. I'm convinced that unless the law is changed, a lot of projects are going to be developed simply because the money is there."

TA: "There is another aspect to that, though, which I think kind of balances what you're saying. In order to get an exemption, the developer has to go to both the State Fish and Game agency and the U.S. Fish and Wildlife Service. And if either of those agencies imposes conditions on the developer, then those conditions are binding whether or not FERC agrees to them. If you apply for a license, all the wildlife

(Continued on page 8)

Calendar

Tuesday, October 12, 9:30 - 11:30

VNRC's Agriculture Committee will meet at the Council's offices at 7 Main Street in Montpelier to discuss a regional agricultural study proposal. These meetings are open to all VNRC members.

Saturday, October 16, 8:00 - 5:00

Fifth Annual Environmental Law Conference at Vermont Law School in South Royalton, Vermont, sponsored by the Vermont Natural Resources Council and Vermont Law School's Environmental Law Center. The theme of this year's conference is "Equity and the Environment," and the featured speaker will be Daniel Mandelker, a noted authority on land use law. In addition to the popular "early bird lectures," there will be sessions on commercial fishing on Lake Champlain, land trusts, the Chace Mills hydro dam, electrical rate structures, fragile areas, oil and gas leasing, hazardous waste transportation and several other topics. The fee is \$25.00 per person (\$20.00 for VNRC members). For more information, contact: Kay Sternberg, Environmental Law Center (802)763-8303.

Saturday, October 16, 8:30 - 3:30

The Solar Association of Vermont, the New Hampshire Solar Energy Association and the New England Solar Energy Association will sponsor a conference and exhibition on the topic of window thermal systems for architects, builders, interior designers, retailers and the public at the Hotel Coolidge in White River Junction. Call Jeff Joslin at Solar Association of Vermont, 223-2400, for more information.

Saturday, October 16

An all-day seminar on "The Values of Wetland Resources" at Minuteman Regional Vocational Technical School in Lexington, Massachusetts, sponsored by the Massachusetts Association of Conservation Commissions and the Massachusetts Audubon Society. For more information, call Janet O'Neill at (617)647-8498 or Marsha Rockefeller at (617)259-0450.

Tuesday, October 19, 7:30 - 9:00

Informational meeting on the forest Issues Report at the Extension Service Meeting Hall in St. Johnsbury. See *Announcements* for details.

Tuesday, October 19, 7:30 - 8:30

Marion MacDonald, VNRC Editor, will speak to the students at Sterling Institute in Craftsbury.

Wednesday, October 20, 7:30-9:00

Informational meeting on the forest Issues Report at the Charlmont Restaurant in Morrisville. See *Announcements* for details.

Thursday, October 21, 7:30-9:00

Informational meeting on the forest Issues Report at Fisher Elementary School in Arlington. See *Announcements* for details.

Monday-Thursday, October 25-28

The New Hampshire-Vermont and Ontario Chapters of the Soil Conservation Society of America

are sponsoring a conference on acid rain at the Ramada Inn in Burlington, Vermont. The purpose of "Acid Rain: The North American Challenge" is to "provide a forum for U.S. and Canadian leaders from government, industry, academia, and public interest groups to discuss issues surrounding the problem of acid deposition, to present results of current research on the problem, and to suggest directions for future action to deal with the problem." The registration fee is \$25.00, and food and lodging are available. For more information about the conference, write to: New Hampshire-Vermont Chapter, Soil Conservation Society of America, P.O. Box 77, Essex Junction, VT 05452.

Tuesday, October 26, 7:30-9:00

Informational meeting on the forest Issues Report at the Central Vermont Regional Planning Commission in Montpelier. See *Announcements* for details.

Wednesday, October 27, 7:30-9:00

Informational meeting on the forest Issues Report at the Education Center, Room 208C, Essex Junction. See *Announcements* for details.

Thursday, October 28, 7:30 - 9:00

Informational meeting on the forest Issues Report at Leland and Gray Union High School in Townshend. See *Announcements* for details.

Monday, November 1, 9:30 - 11:30

VNRC's Energy Committee will meet at the Council's offices at 7 Main Street in Montpelier. These meetings are open to VNRC members.

Tuesday, November 2

Election Day -- your chance to make a difference!

Wednesday, November 3, 7:30-9:00

Informational meeting on the forest Issues Report at Martin Memorial Hall in Ascutney. See *Announcements* for details.

Friday - Sunday, November 5 - 7

"A Time for Choices -- Reaching for Environmental Literacy," a conference sponsored by the New England Environmental Education Alliance in Warwick, Rhode Island. Call Don Hooper at VNRC, 223-2328, for more information about this conference.

Tuesday, November 9, 7:30 - 9:00

Informational meeting on the forest Issues Report at Fellowship Hall, Grace Congregational Church, Rutland. See *Announcements* for details.

Tuesday, November 16, 9:30 - 3:30

VNRC Board of Directors Meeting at Ken Gayer's home in South Woodbury.

Friday - Sunday, November 19 - 21

Third Annual Energy-Conserving Greenhouse Conference and Exhibition, sponsored by the New England Solar Energy Association, in Hyannis, Massachusetts. Call Alex Wilson at NESEA, 254-2386, or write P.O. Box 778, Brattleboro, VT 05301.

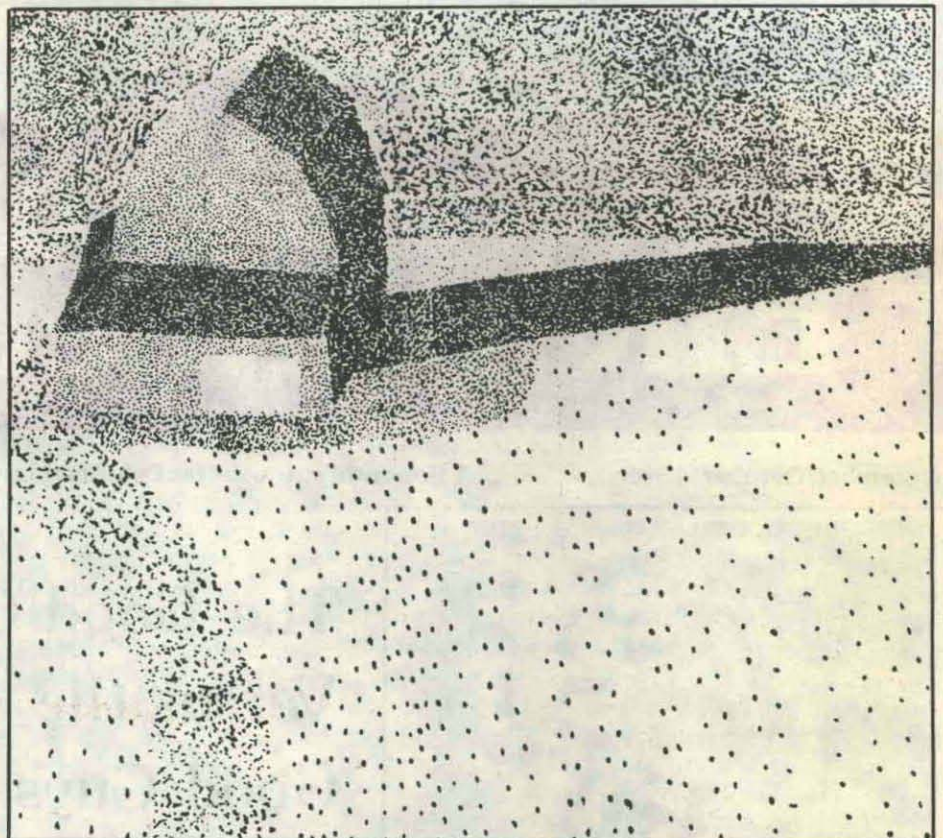


Illustration by Brad Doane, Grade 11, Randolph Union High School, Randolph, Vermont.

SAVE THE MASSACHUSETTS BOTTLE BILL!

It was a major milestone for New England's conservation community last November when the Massachusetts Legislature overrode Governor King's veto and adopted a container deposit law. Massachusetts became the fourth New England state and the eighth state nationwide to enact a "bottle bill" requiring a refundable deposit on beer and soft drink containers.

The law is scheduled to take effect on January 1, 1983. But over the winter, the container industry renewed its campaign against the Massachusetts Bottle Bill and garnered enough signatures to force a referendum on the issue in the November General Election.

"If we can win this referendum, we will have New England essentially complete," says John Oliver, Chairman of the Campaign to Save the Massachusetts Bottle Bill. "If we are defeated here, then clearly the industry is going to lobby for legislative repeal in New York." New York, the most populous state

so far to adopt container deposit legislation, passed its bottle bill in June of 1982.

The Campaign to Save the Massachusetts Bottle Bill is a coalition including the Sierra Club, the Appalachian Mountain Club, the Massachusetts Public Interest Research Group, the League of Women Voters, the Audubon Society and many other environmental groups. Spokesmen for the group hope for strong support from Vermonters, who have had a long and happy relationship with container deposit legislation. If you have had direct experience with the bottle bill as a merchant, distributor or recycler and could provide a testimonial on behalf of the bill, or if you can make a donation to support the work of the Coalition, please write to: Campaign to Save the Massachusetts Bottle Bill, 37 Temple Place, Boston, Massachusetts 02111. If you have friends in Massachusetts, please urge them to vote "yes" on Number four. MM

SCORP SEEKS INPUT

Every five years since 1968, the Agency of Environmental Conservation has revised the State Comprehensive Outdoor Recreation Plan (SCORP). This plan guides the AEC in allocating money from the Land and Water Conservation Fund (commonly known as "BOR" money) for the development of State and municipal parks and recreation facilities.

Public participation in the development of the 1983-1988 SCORP is more important than ever before because of the uncertain future of LWCF funding. The new SCORP must identify other sources of revenue as well as recreation management and resource protection priorities.

The AEC has contracted with Robert Wanner, a private environmental consultant, to produce the 1983-1988 SCORP.* A critical part of his activities consists of identifying private concerns for outdoor recreation and resource protection. Bob invites VNRC members to call or write him about their concerns at: Box 53, Montpelier, Vermont 05602, (802) 223-3804.



VERMONT ENVIRONMENTAL
REPORT

Editor

Marion MacDonald

Acting Executive Director
Donald Hooper

Chairman of the Board
Carl Reidel

The Vermont Environmental Report is published six times a year by the Vermont Natural Resources Council. The opinions expressed by VER contributors are not necessarily those of VNRC.

Please address all correspondence regarding this publication to VER Editor, VNRC, 7 Main Street, Montpelier, VT 05602, (802) 223-2328.

Farmink

"Farmink" is a more-or-less regular column on the latest developments in the field of farmland preservation by Don Hooper, VNRC's Acting Executive Director and goat-farmer-in-residence.



For some time we have noted in this column that the best way to save farmland is to keep it farmed. But right now times are especially tough for farmers in Vermont and elsewhere.

Acknowledging that -- or perhaps because this is an election year -- U.S. Agriculture Secretary John Block has opted not to impose a new 50¢ per hundredweight cut in milk price supports until after the elections in November. Since farmers have also lost the 15¢ per cwt increase due them on October 1, the result will be that dairymen will take a 65¢ per cwt cut, or about \$90 per cow per year. Hoard's Dairyman calculates that the average 50-cow herd will "suffer a loss of some \$4,500 in gross income during the next marketing year and a similar amount in addition to that the following year, beginning April 1, 1983."

Meanwhile, the Agricultural Lands Task Force convened by Vermont Commissioner of Agriculture George Dunsmore has been wrestling with the problem of how to save some of our precious and pressured farmland for future generations.

Farmland protection measures range from the "purchase of development rights" on one end of the scale to "farmland zoning" on the other. Each has its limitations. In the case of development rights purchase, the State or a private land trust actually pays the landowner the difference between the fair market value of the land and its agricultural value in return for a deed restriction prohibiting any future development. PDR is very expensive; it's a kind of last ditch maneuver when all else has failed. Its main virtue is that it is permanent.

Zoning, on the other hand, doesn't cost much. But it may not be particularly permanent, as we saw recently in Chittenden County when South Burlington attempted to re-zone its remaining farmland commercial/industrial and residential. As farmland writer Bill Toner laments, "three people in three minutes can undo what may have taken three generations to accomplish."

And, if zoning boards are sometimes arbitrary, they can certainly be inequitable. Figuring out an appropriate way to compensate landowners whose property values plummet as land is zoned "farm use only" has always been a major obstacle to agricultural zoning.

The Dunsmore Task Force must come up with solutions that will be politically acceptable, inexpensive and fair. If they are too ambitious, costly, or don't get the endorsement of the farm community, it is unlikely that they will meet with much enthusiasm from the Governor or the Legislature.

In early February of this year, the Legislature passed Joint House Resolution No. 43, declaring Vermont's farmland to be "a unique and irreplaceable resource whose conservation is essential" and directing Dunsmore's Agricultural Lands Task Force to "develop a report describing the loss of farmland in Vermont and suggesting possible further responses for consideration by

the Governor and the 1983 General Assembly."

Here is a sketch of the "further responses" the Dunsmore Task Force is working on:

Through a series of incentives, the State will encourage Vermont towns to adopt local plans for farmland protection. A six- or seven-member State Agricultural Lands Protection Board will review the town plan, and, if it meets their criteria, the town will be reimbursed for planning costs, and participating farmers in that town will become eligible for certain benefits. Individual farmers or landowners in areas that the town designates as agricultural zones or districts (probably with some cluster housing permitted), will then have the option of surrendering their development rights and committing their land to permanent agricultural use. The following incentives will then apply:

- tax appraisal of farmland at use value;
- a State-sponsored farm financing program;
- priority consideration for agricultural VIDA-type loans; and
- priority consideration for Farmer's Home Administration (FmHA), Soil Conservation Service (SCS) and Agricultural Stabilization and Conservation Service (ASCS) programs.

If a town plan proves unsatisfactory, or if an individual farmer who wants eligibility is left out of the plan, there is recourse. Farmers may apply directly to the State Agricultural Land Protection Board to be included in an agricultural zone, and may be eligible for a proposed new "State Revolving and Emergency Loan Fund for the Purchase of Development Rights on Farmland."

At this writing, there is a host of program details still to be worked out. But basically, the proposal is a step in the right direction. It encourages local farmland planning, participation by farmers is voluntary, and it provides help from the State without being a top-down ultimatum to towns or farmers. It knits several programs together and provides some needed help to farmers in the form of new loan programs.

But, even if the Governor and the Legislature like it, there are still some big questions:

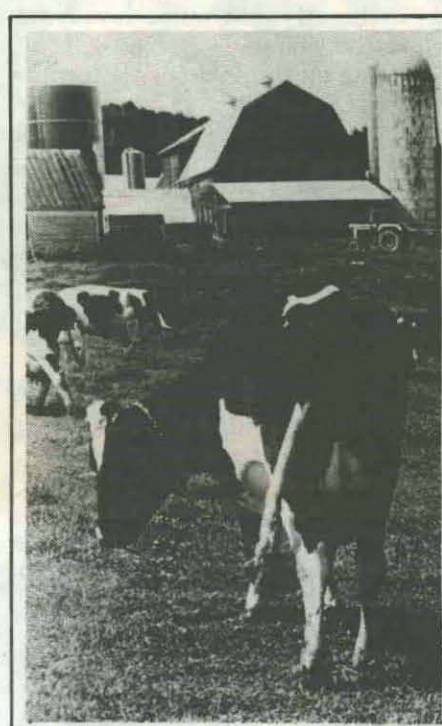
- Are the incentives significant enough, or is this just "tinkering?"
- How permanent will the town plans be?
- Can the State afford even the modest cost of new programs?
- Does "priority consideration" for FmHA, SCS, and ASCS funds mean "targeting," a new federal euphemism for restricting eligibility rather than expanding it?
- And, will anybody participate?

The whole program may be asking too much for too little. Just when times are toughest for Vermont dairymen (who represent 90% of the state's agriculture) is it realistic to expect that many will want to voluntarily sign away their development rights -- one of the few trump cards they can play if they want to come out of the current crisis with their shirts on?

Ray Godfrey of the U.S. Soil Conservation Service in Burlington has just completed the final drafts of two welcome additions to our inventory of "hard" information on farm and forestland in Vermont:

• *The Importance of Primary Agricultural Soils to Vermont Agriculture* is a 37-page analysis of the extent and location of our best farmland. County by county, the report describes the uses of Vermont's best soils (crop, pasture, forest or development). It also notes general trends and special pressures affecting Vermont's primary agricultural soils.

• *The Changing Vermont Landscape: A Resource Inventory Report* examines the main natural resource characteristics of Vermont.



The 50-page report contains tables, graphs and narrative that estimate land use acreages, changes and conservation needs.

To get copies of these publications, write: U.S. Soil Conservation Service, One Burlington Square, Burlington, Vermont 05401.

Meanwhile, the townspeople of Vernon, Vermont (otherwise famous as the home of the Vermont Yankee nuclear power plant) have taken the future of their eight remaining farms into their own hands. At a May 4th meeting to reconsider the landmark Town Meeting Day decision, local voters reaffirmed their appropriation of \$50,000 to start a special town fund for buying the development rights to threatened farmland.

ANNOUNCEMENTS

The Vermont Department of Forests, Parks and Recreation is sponsoring eight public meetings around the state this fall to discuss the recently-completed forest Issues Report. The report represents the efforts this past spring of more than 150 citizens, who served on 19 working groups, to define forest resource problems and recommend solutions. Copies of the report are available at County Foresters' offices, County Extension offices, Regional Planning Commissions and Regional Libraries. See the *Calendar* for meeting times and places. For more information, contact Conrad M. Motyka, Assistant Director of Forests, Department of Forests, Parks and Recreation, Montpelier, Vermont 05602, Tel: (802) 828-3471.

Photo by Hans Raum of Middlebury

NEW STRATEGIES FOR HARD TIMES

More than 100 environmental leaders from New England states and from Washington-based national organizations met in Peterborough, New Hampshire, from September 17-19 for a conference entitled, "New Strategies for Hard Times: Re-thinking the Environmental Movement." Don Hooper and Marion MacDonald from VNRC were among 11 representatives from Vermont.

Though the theme of the conference was "hard times," the tone was upbeat. Jonathan Brownell of Norwich, Vermont, captured its spirit when he suggested that we "see how well we can do with a bad deal." Two-and-a-half days of workshops on influencing elections, coping with decentralization and regulation, and mobilizing grassroots support and effective coalitions stressed hard-nosed, down-to-earth approaches to maintaining the conservation gains of the last few decades.

As Domenic Forcella said in a workshop on "elections and their impact," "It's more effective to influence who's elected to a legislature than to try to influence someone who's already there." Several New England states have organized environmental political action committees (PACs) for this purpose, but Wanda Rickerby of Connecticut admitted that "it's easier to organize in small rectangular states than in

long skinny ones."

Jack Conway, former President of Common Cause, and author Byron Kennard discussed the nuts and bolts of effective organizing, including Kennard's "eight ways to kill a social movement:"

- forget your origins;
- centralize the organization as quickly as possible and
- hire "experts" to run it;
- adopt high and rigid standards of ideological purity (publicly lambast any environmentalist caught eating a hot dog in a fast food restaurant);
- be very serious (glum, if possible);
- motivate people through guilt;
- get and stay, if possible, over-excited (the end of the world is really at hand); and
- don't share the credit for your achievements (hog it all).

Don and Marion also attended workshops on working with volunteers, fundraising, negotiation, mediation and litigation and working with the media. Their notes from these sessions alone would fill a book.

There were also productive discussions with representatives of other environmental groups in a series of "Vermont caucuses." We hope to pursue these discussions in regular meetings beginning September 30. MM

The Word from Washington

HERE WE GO AGAIN! CONGRESS CONSIDERS THE CLEAN WATER ACT

The dust has not settled on the Clean Air confrontation, but already, industry lobbyists led by the Reagan Administration and EPA Administrator Anne Gorsuch are rolling the cannon into place for their next major assault on national environmental protection programs.

Funding for the federal Clean Water Act expired on September 30th. Interim funding will continue through the HUD budget, and the Wastewater Treatment Plant Construction Grants program has already been re-authorized through FY85. But Congress must review the other major provisions of the Clean Water Act as it has every five years since the Act's inception in 1972.

In July, the Reagan Administration proposed two bills -- HR6670 and S2652 -- designed to "fine-tune" the Clean Water Act. Conservationists say these amendments amount to a major overhaul.

The Clean Water Act began with a simple but ambitious goal of eliminating the discharge of all pollutants by 1985 by encouraging industrial plants to reclaim and reuse their chemicals. Interim goals call for keeping most of our rivers, lakes and streams clean enough to support aquatic life, fishing and swimming by 1983.

Since it's extremely difficult to prove a cause-and-effect relationship between water pollution and specific sources, the Act relies on "technology-based" standards rather than regulating polluters on a site-by-site basis. Industries that discharge conventional pollutants were required to process their wastes according to the Best Practicable Technology (the best technology that is economically feasible) by 1977. About 90% of all industries have met this requirement. Industrial facilities that discharge toxic wastes directly into waterways must employ the Best Available Technology (BAT) by 1984, or, if they discharge indirectly through a sewage treatment plant, they must comply with EPA-mandated pretreatment standards.

The EPA has been extremely slow in issuing BAT standards, and has

regulated only four out of 31 types of industrial facilities so far. Most plants need two or three years to comply once the standards are issued, so industrialists and environmentalists alike agree that the 1984 deadline for achieving Best Available Technology must be extended. Conservationists do not agree, however, with the Administration's proposal to push back the deadline a full four years. HR6670 and S2652 would also:

- allow the President to exempt certain types of federal facilities or specific installations from Clean Water Act requirements for periods of up to three years
- extend the length of permits authorizing sewage treatment plants and industries to discharge their wastes directly into waterways from five to ten years
- relax cleanup standards for new industrial facilities
- eliminate EPA's obligation to issue national pretreatment standards and to enforce existing standards
- allow power plants to discharge heated water without protecting native populations of fish and aquatic life
- classify dams as non-point sources of pollution and remove them from federal pollution requirements of the Clean Water Act.

In addition, five bills concerning Section 404 of the Clean Water Act -- HR393, HR3083, HR3926, HR5766 and S777 -- would eliminate federal protection for wetlands. Under the current Act, dredging or filling activities in swamps, bogs, marshes and other waters requires a permit from the Army Corps of Engineers; these bills would limit Section 404 jurisdiction to navigable waterways.

"The basic thrust of the Reagan amendments is to go back to the site-by-site approach we used before 1972," says Daniel Weiss of the Izaak Walton League. "The Administration says that the current technology-based standards compel 'treatment for treatment's sake,' and they would like to return to the water quality standards that we

abandoned as unworkable ten years ago." But at the same time, Weiss cautions, the EPA is encouraging states to weaken their water quality standards and downgrade stream designations to less desirable uses.

Weiss urges VER readers who want to get involved in the Clean Water Act issue to "educate themselves about the Act, follow the debate in Congress and monitor what's happening at the local level." Vermonters, in particular, should write to Senator Stafford, whose Environment and Public Works Committee will consider the Clean Water Act revisions:

Senator Robert Stafford
Room 5219
Dirksen Senate Office Building
Washington, D. C. 20510

GETTING THE LEAD OUT

High on the petroleum industry's de-regulation wish list is higher limits on lead in gasoline. The EPA tried to grant that wish by advising oil companies that the amount of lead that may be legally added to a gallon of gasoline may be rounded off to the nearest tenth of a gram, raising the limit by 10% from .500 to .549 grams. But when EPA loosened the regulations, the public outcry was deafening. Lead poisoning is a known hazard, especially to urban children. A study released this spring by the National Center for Health Statistics says that about 4 percent of all pre-schoolers have a level of lead in their blood that exceeds that set by the Center for Disease Control, and the incidence of lead poisoning is directly related to the consumption of leaded gasoline.

The EPA has reversed itself and proposed new regulations to reduce lead use, but due to a Reagan executive order, all new regulations have to be approved by the Office of Management and Budget. OMB has blocked the lead regs on the grounds that they may be a "burden on industry."



CLEAN AIR CLEANS UP

Environmentalists were generally pleased with a compromise bill to amend the Clean Air Act reported out of Senator Stafford's Committee on the Environment and Public Works on August 19th. The committee bill:

- maintains the current law's auto emission standards and strengthens controls for trucks and busses;
- retains a reasonable, effective standard for new coal-fired power plants;
- extends deadlines and provides for greater flexibility in meeting clean-up standards in heavily-polluted areas but maintains effective measures for meeting the health-based National Ambient Air Quality Standards in the urban and industrial areas where more than 140 million people live;
- substantially simplifies the Prevention of Significant Deterioration (PSD) program (which protects air that is cleaner than minimum federal standards) and retains a State's right to administer the program, but also allows States to "opt out" of the increment system that provides a "budget" limiting new pollution in clean air areas; and
- simplifies EPA review of State Implementation Plans without sacrificing citizens' rights to participate and enforce the law.

The compromise bill strengthens the Clean Air Act in two major ways:

- it requires an eight-million ton (35%) reduction in sulfur dioxide emissions from 31 states east of and bordering the Mississippi River by 1995; and
- it directs the EPA to review at least 40 chemicals and decide which ones are hazardous within five years.

The bill weakens the Act by:

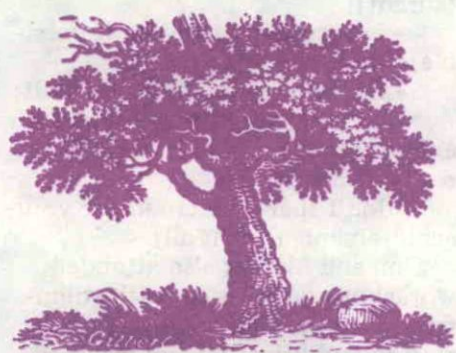
- extending clean-up deadlines and exemptions for smelters;
- making it harder to regulate ozone-depleting chlorofluorocarbons; and
- complicating judicial review of nationally-applicable clean air standards and regulations by involving all twelve U.S. Courts of Appeals.

The National Clean Air Coalition supports the compromise bill, which now goes to the full Senate for consideration.

FORESTS FOR SALE

Agriculture Secretary John Block has announced that he will ask Congress next year to allow the U. S. Forest Service to sell more of its 191-million-acre domain. Block already has permission to sell some 60,000 acres in 26 states to reduce the national debt, but he would like to unload another 15 - 18 million acres. Only the 51 million acres now in wilderness, wild and scenic rivers, national monuments and national recreation areas would be off-limits.

Why Do Leaves Change Color?



The question comes up every year about this time: Why do leaves change color in the fall? According to *Ranger Rick's Nature Magazine*, Autumn's cooler temperatures and shorter days cause chlorophyll -- which gives them their green color in Spring and Summer -- to break down and other pigments to form in the leaves.

A spectacular show of fall colors depends on the right amount of sun-

shine, rain and cool temperatures. New England falls are so beautiful because the region's weather is usually dry, bright and cool.

Like everything else in nature, no two leaves are alike, and none of them will have the same splendid color combination each season. However, *Ranger Rick* explains that all the color variations are based on the following pigments:

- Yellow and orange:** These pigments are in the leaves all year long, but can't be seen in the Spring and Summer because they are covered by the green chlorophyll. These are the same pigments that make egg yolks yellow and carrots orange.
- Red and purple:** The bright red and purple colors of fall only show up on leaves of trees that produce a lot of sugar. Because trees need very cool and dry temperatures to produce sugar, these colors are mostly found in New England's

trees. Red maples, which normally produce a lot of sugar, usually have red and purple leaves in Autumn. But if fall temperatures are too warm, or if there isn't enough sugar in the tree, a red maple's leaves will turn orange or yellow.

•**Brown:** Some leaves, like those on oak trees, do not change to bright colors in the Fall, but become brown and drab. This is due to the presence of tannin, which mixes with the yellow and orange pigments and turns the leaves brown.

And why do leaves fall? Because cooler weather causes the food products stored in the leaves to flow to safer quarters--the tree's branches and trunk. A thin layer of cells, called the "absciss layer," then forms across the stem that connects leaf to twig. With this link weakened, the leaf breaks off in an Autumn breeze or eventually falls to the ground of its own weight.

The Cost of Current Use

Carol Kennedy, a Mellon intern from Yale School of Forestry, spent the summer at VNRC studying Vermont's current use tax and searching for more secure funding for the three-year-old program. Carol's back at Yale now, putting the finishing touches on her report and wrapping up the coursework for her Master's degree. But she sent us this sneak preview of the results of her summer-long study:

The most vulnerable link in Vermont's current use tax is the reimbursement provision. Land enrolled in the use value assessment program is assessed according to its value for farming and forestry rather than its fair market value, and the State reimburses local governments for lost property tax revenues. But as the amount of land enrolled in the program increases, so does its cost. In the first two years of current use, the reimbursement to towns for lost property taxes, based on the difference between fair market value and use value, climbed from \$406,161 in 1980 to \$802,377 in 1981. It is expected to reach \$1.6 million in 1982.

The Vermont Legislature anticipated this problem, and voted to fund the program one year at a time. But uncertainty about continued funding discourages landowners from participating and threatens the long-term success of current use.

As I see it, there are two ways to meet the financial requirements of the current use program: finding other ways to fund the reimbursement, or reducing the amount of the reimbursement.

OTHER FUNDING SOURCES

I evaluated two alternative revenue sources for the reimbursement, including:

(1) Increasing the property transfer tax. Vermont's property transfer tax is one-half of one percent of market value at the time of sale. This tax contributed \$3,253,075 to the General Fund in fiscal year 1981 and \$2,893,343 in FY82. Increasing the levy for property transfers could easily subsidize the expense of the current use program. Setting the rate at three-fourths of one percent would bring in an extra \$1.5 million, and doubling the tax to a full one percent would yield an additional \$3 million annually.

Most states have similar taxes on property transfers, with rates ranging from one-tenth of one percent to two percent. Vermont's tax rate of one-half of one percent is comparatively high; however, some states with lower property transfer taxes have other sources of revenue such as severance taxes, yield taxes and stock and mortgage conveyance taxes.

(2) Timber tax. Many states collect a yield tax on timber. New Hampshire's yield tax is ten percent of the stumpage value times the amount harvested. For example, the stumpage value (the value of timber before it is cut up into boards) of white pine is \$60 per thousand board feet. If you harvested 1000 board feet of white pine, your tax would be \$6.00.

If Vermont used a similar tax to help finance the current use program, the State would have collected \$1,348,384 in 1980 and \$1,286,686 in 1981 (using New Hampshire stumpage values and Vermont timber volume data compiled by the Department of Forests and Parks). This is not enough revenue to justify the cost of administering and enforcing such a tax. Both New York and New Hampshire have experienced large-scale compliance problems with their timber yield taxes.

REDUCING THE REIMBURSEMENT

Another way to control the cost of current use is to reduce the size of the reimbursement. This could be done by:

(1) Discouraging speculators. Current use was designed to assist landowners who want to manage their farm and forest land. A land use change tax, equal to ten percent of the fair market value of the developed portion of the property at the time of withdrawal, helps discourage short-term participants.

But the 10% penalty may not be very effective. Tax savings vary from

landowner to landowner and from town to town, but after a certain number of years, the land use change tax that would be assessed on your property if you left the current use program equals the cumulative tax savings that you have received as a result of current use valuation. For very valuable property, the cost of the land use change tax can disappear after as little as three years! A tax "rollback" requiring that landowners repay part of their deferred property taxes according to how much they have saved would alleviate this problem.

(2) Letting the towns absorb part of the cost. The State could cut its costs by withholding the reimbursement until the town requires a full one percent increase in its tax rate to make up for current use assessment. About two-thirds of the towns in the program in 1981 would have been above the one percent threshold increase and would have received partial reimbursement under this scheme. The other one-third would have absorbed a one percent increase in their tax rate. This would have reduced the State's 1981 expenditure for the current use program by roughly 60 percent.

WHAT'S "FAIR" ISN'T FAIR

The cost of the reimbursement program is expected to increase and become more controversial as current use competes with other social programs for General Fund monies. Several points should be kept in mind, however, in evaluating the current use tax program:

(1) The program shows strong evidence of improving the productivity of land -- especially forest land;

(2) Current use valuation has created equitable taxation for farm and forest land; and

(3) It is not just a "tax break" for landowners.

Current use should be viewed as another means of distributing money to towns. Although the reimbursement to local governments is based on the difference between use value and fair market value, it could be argued that the towns should not collect property taxes based on the inflated development value of farm and forest land in the first place. Once the reimbursement is viewed as town support rather than landowner tax relief, its funding is easier to justify.

letterlettersletterslettersle

To the Editor of the Vermont Environmental Report:

This fall, Green Mountain Power and Central Vermont Public Service Corporation are spraying rights-of-way with herbicides designed to kill vegetation and growing trees under the power lines. They are using Tordon 101 and Tordon RTU. Tordon 101 was known as "Agent White" when it was used in Vietnam along with Agent Orange and Agent Blue. Agent Orange is made up of 2,4,5-T and 2,4-D. 2,4,5-T is now banned. Agent White is made up of 2,4-D and Picloram.

2,4-D is a phenoxy herbicide. These herbicides kill by promoting uncontrolled expansion and division of cells. In effect, they give the plants cancer. In the early seventies, Dow Chemical research found evidence of incomplete bone formation, misplaced ribs and a host of other birth defects among rats dosed with small quantities of 2,4-D.

Dr. Sherer, a consultant in Genetic Toxicology, says he knows of "more than 30 people who have been acutely poisoned by 2,4-D." Acute symptoms include nausea, diarrhea, headache, weakness, burning eyes, sore throat with burning in the chest, and difficulty in thinking. Residual effects include chronic respiratory impairment, concentration and memory problems and hypersensitivity to non-physiologic chemicals.

However, 2,4-D does break down faster than Picloram. A Dow Chemical publication reported that less than 3% of applied Picloram had disappeared from California soil after 467 days. The Washington State Department of Agriculture blamed Picloram for contamination of many wells and aquifers in a 1979 paper, and in 1981, pathologist Dr. Melvin Reuber found "positive correlation

between treatment with Picloram and tumors of liver and endocrine organs in rats, and tumors of spleen in mice."

The health and safety information used to register Tordon (and Krenite, which Green Mountain Power, possibly because of public consternation, now says it will use around Waitsfield), was developed by Industrial Bio-Test Laboratories, Inc. These laboratories are under investigation for data falsification, and 99% of their cancer studies are considered invalid.

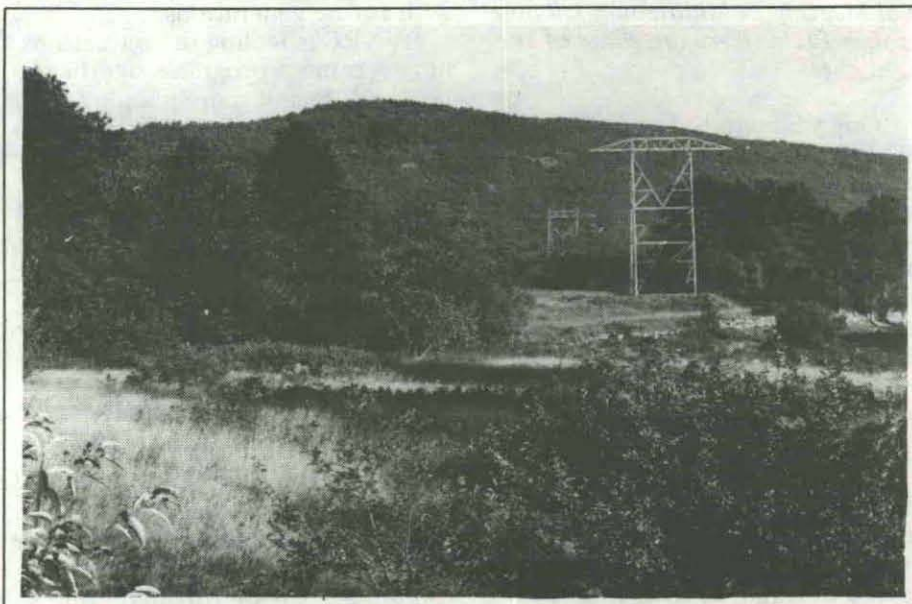
I spoke with Mr. Triolo of the Pesticide Department of the EPA in Boston and discovered that the regulations for Tordon say, "it should not be applied where surface water can run off to adjacent cropland or into streams, ponds or wells." It is obvious that surface run-off from a long-lasting substance such as Picloram on Vermont's hilly terrain cannot be controlled.

What can we do to prevent our

water from being poisoned? The Department of Agriculture has the power to restrict pesticide use in Vermont. Perhaps the utility companies should look into vegetation management (as tried in New York), which involves planting scrubby bushes such as blueberry and viburnum to displace tree seedlings. Maybe groups such as the Oregon and West Virginia Citizens Against Toxic Spraying should organize here in Vermont. In West Virginia, owners can clear brush themselves to company standards for a negotiated fee.

In the meantime, landowners can inform utilities that they refuse to allow spraying on rights-of-way over their land. They should also write to Mr. Philip Benedict, Pesticide Control Advisory Board, Department of Agriculture, 116 State Street, Montpelier, Vermont 05602, stating their opinion of the spraying.

P. A. Davies
Waitsfield, Vermont



"Add a Little Extra for Vermont's Heritage"

"When you bid, add a little extra for Vermont's heritage," said VNRC Board Chairman Carl Reidel as he kicked off the main event at a VNRC fund-raiser on August 28th. The second annual "Vermont Heritage Festival" at Bent Hill Settlement in Waitsfield was an even bigger success than its predecessor, drawing about 600 people and raising nearly \$7000 for VNRC.

Craft displays were a major attraction at this year's festival, with demonstrations of quilting, broom-making, blacksmithing, flower-arranging, dowsing and all manner of woodworking. Nearly one dozen craftspeople plied their trades at Bent Hill.

Paul Stacey ferried festival-goers to the Common in the Knoll Farm horsedrawn carriage where we were delighted with fine performances by the Vermont Jazz Ensemble and Peggy Vasko and her puppets.

High winds forced Jeff Ament and his "Spirit of Stowe" hot air balloon to cancel their scheduled appearance at Bent Hill, but we were grateful for clear skies and bright sunshine most of the day.

Lamb shish-kebabs, bratwurst, spanakopita, and made-to-order omelets were some of the gourmet goodies offered by the Vermont Lamb Marketing Association and Nick and Heidi Nikolaidis' Black Forest Cafe-on-wheels. Mary and Vicki Schipa, alone, handed in \$388 at the end of the day for their homemade desserts, and the Vermont Sierra Club, Harrison Snapp and John Welter and Green Mountain Coffee Roasters kept us in lemonade, iced tea, coffee, beer and wine.

Dick Hathaway's "country auction" was better than ever! Dick almost brought the tent down when he auctioned off a globe-style hanging lamp trimmed with long strands of green plastic beads. "It's mildly seductive in a light breeze," he re-

vealed, "but in a high wind, it's positively pornographic."

Hathaway said the "most exotic item of the auction" was a package of Lake Champlain smoked eel, donated by Cheryl and Monty Fischer. He dismissed Carl Reidel as a "thoughtful dilettante" when he made an opening bid of \$10.00. Later, Hathaway described a modernistic wooden cutting board as a "ping-pong paddle for perverts" and suggested that the woman who donated a size six wool dress had "died of constriction."

The "big ticket items"—a Gallagher electric fencer, an instant hot water heater, a Jonsereds chain saw, woodstoves from Coalbrookdale and Vermont Castings, and season ski passes at Mad River and Mount Mansfield—sustained a high level of excitement through the auction and netted over \$2100.

The hard core—those who stayed through the end of the auction—were rewarded by Alice Kinzie's plaintive renditions of "Calypso," "Dona, Dona," "The Owl and the Pussycat" and other timeless ballads. MM



Call Candidates on the Carpet

If the battle to preserve and protect our environment could be won by clear thinking and plain speaking alone, we'd have a guaranteed victory with Carl Reidel, Chairman of VNRC's Board of Directors, as our Commander-In-Chief. In addition to his many, many other services in that office, Carl has repeatedly demonstrated an ability to rouse the troops with stirring oratory. Carl made his last speech as Chairman to VNRC's membership at the Annual Meeting in Middlebury on September 11th. Here are some of the highlights:

"One year ago today, in my comments to this Council at Burke Mountain, I said that 'this nation, this state, is facing the most critical period in the history of environmental conservation.' . . . I regret to report that that modest prophecy has proven painfully true. In one brief year, more lasting damage has been done to this nation's environmental heritage than perhaps any year in this century."

"... We are confronted by a situation we never expected. At the highest levels of government, we find people in key positions. . . openly bragging of their intent to

cut programs and cripple the very agencies and laws they are responsible for managing."

"... Here in Vermont. . . we suffer some of the same problems as the national government. Neither the Administration nor the Legislature seems terribly interested in addressing the serious environmental problems we face. We are more and more obsessed with balancing the budget for a single fiscal year than we are with balancing our accounts with future generations. . . ."

"VNRC is feeling the reductions in government programs significantly. . . . More and more people seek our assistance at the very time we have reduced financial and staff resources. We've been able to respond because our staff has worked overtime, volunteers have come forward, committees have worked, and we've joined forces with other conservation organizations. But we will need your help if we are to make a difference in the year ahead. . . ."

"And there is one very important thing you can do this year especially. You can get involved in the election process by bringing our conservation concerns before every candidate. We are fortunate that so

A Round of Applause

We owe the success of the Vermont Heritage Festival to 260-plus individuals and businesses who organized, solicited, demonstrated, entertained and donated. In addition to our gracious hosts, Carolynne and Gregory Schipa of Weather Hill Restoration, we'd like a round of applause for: Silver Needle, Inc.; Hillson Home Center; The Body Shop; Bove's Restaurant; Blue Seal Feeds; Madbush Resort; Mad River Glen Corp.; Hooker's Furniture; Curt Hooper; Blue Toad; Mike Bell; Pam Cowan; Washington County Supply; Tick Tock Shop; Jack Tobin; All Things Bright and Beautiful; Forgotten Furnishings; 4 Seasons Garden Center; Tom & Andrea Frazier; Hilary Frost; Origanum Natural Foods, Inc.; The Outfitters; Betty Ann Libby; Linen Shop; Lizzari Photographers; Jeffrey Ament; Angelino's Pizza; Jean Ankeney; Brown Derby Restaurant; Champlain Trading Co.; Mad River Transit; Main Street Dance; Shelburne Frame & Art; Miller's Country Outfitters; Black Forest Cafe; Marion MacDonald; Greg Paus; Parade Gallery; Chez Henri; Calico Cat; Clayton Carl; Carousel Dance Boutique; Dick Hathaway; Chez Huguette; Ray Montgomery; Vermont Conservatory of the Arts; The Owl's Basket Cheese Shop; Passe Partout Fine Framing; Past Times; Luminosity Stained Glass Studio; Laura Pedicini; N. Hawke Financial Services; The Town Shop; Sylvia & Bob Stewart; Richard Brackenbury; Waterworks; Beggars Banquet Restaurant; Bridge Street Cafe; Crust n' Cauldron; William E. Allard, Jr., M.D.; Thom McEvoy; Judy McVicker; Mehuons Market; George Chappel; Hearthstone Stoves; Harold & Marylou Somers; Buch Spieler; Monty Herscovitch; Mt. Mansfield Co.; Elizabeth Mullikin; The Store; Sierra Club of Vermont; Fernandez Hardware; Scott & Mary Skinner; Otis Wallis; Warren Antiques; Patricia Tragemann; Midtown Motors; Quik Copy; Women in Business; Jared Wood; Woodbury's of Shelburne; Dana Watson; Millbrook Restaurant; Weather Hill Joinery; Alowan Natural Foods; Steve Zind; Alpha Hair; Doug Bruckardt; Avery Smith; Win & Jane Way; Paul Stacey; Victoria Schipa; Ben Weber; Anne & Bob Brigham; Mary Lucia Razza; Country Camera; Virginia Cole; Hide 'n Sheep; Mooselips Cafe; Seward Weber; Morse Farm Sugar Shack; Knoll Farm Country Inn; Vermont Castings; Peter Sidel; Ben & Jerry's Ice Cream; Weston Bowl Mill; Hanne Williams; The Collection; Wayne Ladd; Depot Woodworking; Cherie Langer; Green Mountain Lamb Growers; Dirt Road Bobbin Mill; Chuck Bergen; R.F. Bergeron; Joel Bernstein, Esq.; F.I. Somers & Sons, Co., Inc.; Yankee Energy Center; Green Mountain Coffee Roasters; Douglas Flack; John Welter; David Segal; Judith Selner; Sam Rupert's Restaurant; Ted Riehle; The Chimney Sweep; Robbie White; Vermont Pasta Company; Green Mountain Gallery; Greg Betit; Betty & Norman Vandal; Vanguard Type & Design; Peggy Vasko; Christine Byrne; Common Man; The Computer School; Paul Sevigny; Cabin Fever Quilts; Wavell Cowan; Ted & Susan Cronin; Mary's Restaurant; Peter Glenn of Vermont; Photogarden; The Cheese Shop; Judy Dodds; Downhill Edge; Virginia Downs; Edison Studio; Troll Shop; Bittersweet Furniture; Great American Salvage Co.; Valley Storehouse; City Market; J. P.'s Hardware; Huntsman's Paint & Wallpaper; Cassie La Riviere; Learning Exchange; UVM College of Agriculture; Steven Bronstein; Julio's; Wallace Illsley; Larry Forcier; John Holden; Inverness Ski Shop; Alice & Bill Kinzie; Michael Kehoe, Ltd.; Tree Top Shop; Claussen's Greenhouse; Coalbrookdale Company; Will & Terry Knight; Lobster Pot Restaurant; Janice Longfellow; Roxbury Fire Department; Rubber Bubbles Balloon Co.; Onion River Sports; Nickelodeon Cinema; Joys of Wool; Earle & Jo Newton; Barbara Kelly; Carol Kennedy; Savoy Theater; Bennington Potters North; The Reid Family; Cynthia Chess; Vermont Jazz Ensemble; Upstairs Records; Brent Cowan; Fly Fishing Shop; G. Gilbert Kleine; Green Mountain Leather; Hunt's; Mary Hooper; Terrence L. Horan, D.D.S.; Jane & Johns Congdon; The Daily Planet; Northern Lights Studio; Taylor Appliance Store; First Impressions; Monty & Cheryl Fischer; Vermont Symphony Orchestra; Klip 'N Kurl; Dean Applefield; Northfield Savings Bank; Village House; Jeffrey Le Vine; Northlight Studio Press; Northwind Power; Donald Gobin; Steven Reid; Pat Burley; Burlington Farmers Market; Susan Reid; Rosebud Plant Shop; Bernard von Trapp; Anne Just; Doug Jaffe; Mary Lou Kazza; J. J.'s Gifts; Dave & Beth Jillson; William Murphy; Sugarbush Soaring; Nautilus Alternative; Trash Unlimited; Trillium; Tucker Hill Lodge; Olde Tymes Inn & Restaurant; Vermont Stove Company; Ken Dean; The Fish Store; Bagatelle; Betty Ann Budnick; The Tulip Tree; Northfield Wood Products; Pat Taylor; Net Result; University Mall; Brookfield Fire Department; Richard Ince; Cornelia & Henry Swayze; The Book Stacks, Inc.; Gabriella's Hair Styling; Rebecca Davison; David Sawyer; Bear Pond Books; Don & Alice Hooper; China Barn; Penny & Jim Guest; Carolynne & Greg Schipa; Kecia Schipa; Thornton's Outside; Kit Tillinghast; Chris Hadsel; Bill Mares; John & Barbara Balch; Shannon Gilligan; Bill Williams; Williston Gulf; Conant Custom Brass; Richard Unger; Union Woodworks; Susan Sawyer; Madeline Kunin; Armand Poulin; and Sewall Williams.

many candidates for national and state office have expressed a commitment to conservation. But let's be sure they understand fully what we expect. Let's not roll over too quickly for a few promises. . . . We have been insisting that environmental conservation is inseparable from sound economics. As Barry Commoner said two years ago to this annual meeting, everything is connected to everything else!"

"So, before you commit yourself in this election, be sure that a candidate's entire platform makes sense. . . . Hold your favorite candidate responsible environmentally for what he or she claims in other issue areas. For example, I intend to tell any candidate I encounter, 'Don't tell me you're for:

- national defense, but haven't supported energy conservation -- the only way for New England to gain independence from Mideast oil;

- agriculture and open space, but failed to provide the staff or funds to streamline the Act 250 process or complete the State Land Use Plan;

- for education, but won't demand restoration of research funds essential for environmental agencies to establish pollution standards;

- for economic recovery, yet favor dumping federal and state programs on the local property tax base.

- the elderly, but have no position on public transportation;

- law and order, but haven't taken issue with severe cuts in enforcement budgets for EPA or called for Watt's dismissal; or

- for public health, but haven't yet devised a way to dispose of nuclear wastes except to sneak them through Vermont in the middle of the night."

"Don't tell me you are concerned about the future when neither the nation or the state has approved a long-range strategic plan for energy, for agriculture or forestry, for water quality management, for habitat management or land use—not one!"

"I personally intend to ask those questions right up to the election, and to make my decision on the strength of the answers."

The Council

VNRC/TNC DOUBLE-HEADER WAS A BIG HIT

The Vermont Natural Resources Council and the Vermont Nature Conservancy shared programs and podiums this year and hosted an all-day joint annual meeting at Middlebury College on September 11th. From all reports, this little experiment in "co-generation" sparked exceptional field trips to Dead Creek, the Foster Farm and other local attractions (although we hear the Bristol Cliffs trek was a little rougher than advertised—our apologies!) and livelier-than-usual workshops like "Cornfields and Condominiums" and "Chat with the Chairmen." It also enabled us to share a dynamic keynote speaker, Canadian Environmental Minister John Roberts (see related story, this page) and an excellent film on acid rain produced by the National Film Board of Canada.

Nature cooperated with summer-like (some might say "hot") weather, and the buildings and grounds of Middlebury College certainly lent a gracious ambience to our serious and often sobering discussions.

Don Hooper, VNRC's Acting Executive Director, opened the Council's business meeting with a call for greater volunteer participation to enable the Council to meet the challenges of the 80's, and this plea was reiterated in a speech by Board Chairman Carl Reidel (see story on page 6). After Carl's speech, we presented awards for outstanding service to the environment and the State of Vermont to Darby Bradley of Calais, Chester Eaton of Hartland and Lyman Wood of Charlotte. And finally, we named three new members to the VNRC Board—Robert Gillette, Karen Meyer and Gail Osherenko—and re-drafted veteran Directors Red Arnold, Bob Klein and Carl Reidel.

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John Roberts at Middlebury College, Middlebury, Vermont

CANADIAN ENVIRONMENTAL MINISTER WARNS OF GROWING TENSIONS OVER ACID RAIN ISSUE

More than once during his recent visit to Vermont, John Roberts, Canada's Minister of the Environment, warned of growing tensions between the U.S. and Canada over the acid rain issue.

"It is without a doubt the single most important awkwardness in Canadian-American relations from a Canadian point of view," Roberts said at a press conference in Middlebury.

John Roberts, who was in Vermont to address the annual meeting of the Vermont Natural Resources Council and the Vermont Nature Conservancy, sharply criticized the Reagan Administration's position that what is needed is more research rather than stricter controls on the sources of acid rain.

"We have reached the point where a decision to stall and drag our feet on the pretext that more research is

needed is, in fact, a political decision to do nothing," he said. "How much more honest it would be if the naysayers would simply come out and say, 'No, the lakes simply aren't worth saving.' We then could at least publicly debate the issue in an honest and open manner."

The Canadian Minister has repeatedly threatened to break off negotiations on a transboundary air pollution agreement because of purported "foot-dragging" by the American representatives.

Roberts urged Vermonters to "talk to each other and talk to their friends in other parts of the country." "Perhaps we [Canadians] have a naive faith in information and communication and rationality," he said, "but we believe that if the Americans are well-informed, they will respond." MM

VNRC BOARD CALLS FOR STATEWIDE FOREST PLANNING

A policy statement drafted by VNRC's Forest Policy Committee was approved by the full Board of Directors at their summer meeting on August 9th in Grafton, Vermont. The policy calls for a "broad plan for executive action, legislative programs and public and private investment based on a thorough and continuing assessment of the forest resource as it relates to the needs of the people."

VNRC endorses a state forest resource plan emphasizing continuous production of high-quality hardwoods and softwoods such as pine, maple, birch and ash. Mollie Beattie, VNRC's Vice-chairman, acknowledges that this goes against the current trend of the market, but the Council maintains that management for high-quality sawlogs will stabilize employment in wood-using industries and yield the highest economic returns for Vermonters in the long run.

The policy also cautions moderation in the use of Vermont's large inventory of low-quality timber for fuel and firewood. "These trees are not 'junk'," says Beattie. "They are a valuable energy resource that will help us through petroleum shortages if it is meted out wisely, not just disposed of as quickly as possible."

VNRC's forest policy will guide its future program activities as well as forming the basis of its comments on a state forest plan to be drafted by the Department of Forests, Parks and Recreation.

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AGRICULTURE COMMITTEE PROPOSES REGIONAL STUDY

VNRC's Agriculture Committee has proposed a joint UVM/VNRC assessment of the future of agriculture in New England and its relationship to public agricultural policy. The goals of this study would be to develop guidelines for public agricultural policy in Vermont, help re-orient national agricultural policy as it relates to New England and Vermont, and assist in the design of

a more exhaustive research effort on the subject by UVM and other land grant colleges in New England. The Agriculture Committee is refining its project description and sounding out foundation funding sources. As always, any suggestions for individual or corporate funding would be greatly appreciated! Call Don Hooper at VNRC, 223-2328.

We're pleased to welcome to VNRC the following new members who joined us in July and August: Susan Milliken-Martel; Michael LeBorgne; Dr. & Mrs. Henry Farmer; Nora Kelleher; Raymond D. Hathaway; Ann Briggs & Bob Buermann; Frank G. Barnard, M.D.; Ginger Wallis; Geoffrey Poister; Mr. & Mrs. Randolph Martin; Steve and Alice Brown; Vivian Nemhauser; Elizabeth Downer; Curtiss C. Grove; Mr. & Mrs. R. W. Bernard; Ronna Gray; Jane & Walter Gardner; Eugenie Doyle; Ralph Kaufman; Marie Louise S. Scarff; Ion C. Laskaris; Standish Deake; Mary R. Musty; Mary Kim McDowell; Ian and Margo Baldwin; Chad & Carolyn Gregson; Ralph R. DesLauriers; Mrs. Walter Lilly; Elizabeth Brandon; Betty & Victor Nuovo; Karen & Dan Mayers; William Gonzalez; Jonathan Gibson & Eliza Mabry; Mr. & Mrs. John Fitzgerald; Mr. & Mrs. A. Hugo Kruesi; John & Sandra Dooley; John Warshaw; Morgan Smith; Floyd & Margaret McDonald; Reginald S. White; Dr. & Mrs. R. W. McCauley; Louis Coty; William Gehr; John Ostrum; Bob & Betsy Bourdon; Skip Sturman; Barbara Buswell; Laurent Rainville; Black Magic Chimney Sweeps International; A. W. Ranney; Joseph Badger; Robert Weinberg.

"OH, NO! NOT ALREADY!"

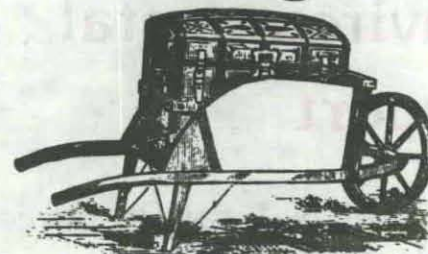
This coupon goes against all of our better instincts. We hate it when all that "Ho! Ho! Ho!" stuff picks up where the last of the fall foliage left off. But if we wait until the November/December VER to remind you, you won't have time to give a gift membership in the Vermont Natural Resources Council. On the other hand, if you send your order in now, your friends will receive a personal note from Sylvia Stewart, our Membership Secretary, and their first issue of the Vermont Environmental Report just in time for you-know what!

Name _____

Address _____

() Please bill me
() Enclosed is \$_____ for a membership in the following category: () Individual -- \$15.00 () Family -- \$20.00 () Student -- \$5.00 () Fixed or Limited Income -- \$6.00 () Business -- \$75.00 () Sustaining -- \$50.00 () Supporting -- \$100.00

Moving?



Please send us your new address

Name _____

New Address _____

"It's not that people like hydro, it's that the developers and their financial backers have some real economic incentives to develop it."

(Continued from page 1)
agencies can do is make recommendations, and FERC either accepts or rejects them. In the exemption process, the final say is up to the fish and wildlife agencies, and that's a real power."

CR: "If you look at the history of regulation over the last 12 years, the tendency has been to encourage bureaucracy, particularly federal bureaucracy, to make it much, much easier on the small projects. I, for one, just cannot believe that Fish and Game is going to give each very small project on the upper reaches of the White or the Black River the attention it deserves. And that's where your critical spawning occurs -- on the upper reaches of all these tributaries, in the gravel areas where the water temperature is just right. In my judgment, PURPA is giving a signal to developers and to the 'smart money' that we're going to look more favorably on power, and we're going to minimize the recreational, comprehensive aspect of river basin development. And I think it's a real step backwards."

MM: "So you still feel that even with the present unsure status of the 'full avoided cost' requirement, the PURPA regulations give too much encouragement to small-scale hydro development?"

CR: "Well, looking back at the history of the nuclear movement and at the history of oil and gas, I get concerned when society subsidizes the development of any particular form of energy without considering the actual economics involved. We've made a lot of bad resource decisions because these costs have been subsidized, and the developer has not been forced to reckon with the marketplace."

MM: "It's discouraging to someone who's looking to reduce our reliance on say, nuclear power or imported oil, that we seem to find severe economic or environmental problems with almost every alternative. If the economic benefits of small-scale hydro don't balance the environmental trade-offs, what do we turn to over the next 10 to 30 years?"

CR: "My personal feeling, I guess, is that in the short run, it has to be coal, and the public has to expect to pay the costs associated with providing the clean air that I think technology can provide. I just don't see, unfortunately, any source of cheap energy."

TA: "I think one of the answers to your question is, you're going to

see a long-term drop in demand. As the factories put out more and more fuel-efficient cars, the fleet gradually begins to get better mileage on the average, so that consumption begins to stabilize and slow down a little bit. I think the same thing will happen with other areas of energy use. You're going to get more houses that have passive solar, more houses with active solar heating systems, and more schools and other types of institutional buildings with active solar systems. And gradually, over a period of time, the demand will stabilize and begin to drop, and we probably won't need any big new power plants."

MM: "Every time I make that argument to legislators or utility officials, they point out that we're not simply looking at reducing overall demand, but also replacing existing coal- and oil-fired plants, many of which are due to be retired in the next few years."

CR: "This is true. The demand problem is complicated because up until very, very recently, population growth has been down. Also, people who are able to take conservation measures with relatively little expense have already done so; additional conservation measures are apt to be a lot harder to come by. And the last ingredient in the demand formula is the economy. Sure, growth in electrical demand has dropped dramatically in the last few years. But I think if the economy bounces back very vigorously, you'll find that growth in electrical production is going to go up again."

"I'd like to think that conservation measures are the answer, that we will not have any increase in demand, and it will just be a question of replacing existing plants, but I don't think that's going to be the case. I don't think solar is going to contribute significantly to the energy supply picture until beyond the year 2000. This is 1982, and we've been talking about solar pretty seriously since President Carter came in in 1976. Wind, solar -- all will produce some energy, but in terms of total quantities, it's still relatively insignificant."

MM: "Charles, how does this discussion fit into your work with VNRC's Energy Committee?"

CR: "We're discussing essentially the same problem, and we're getting ready to assess and critique the state energy plan. The committee is reviewing an early draft and isolating what we consider the most impor-

tant policy issues or statements."

"For example, we all know, as Tom just said, that rate of growth is a critical factor in the supply that's needed. We will probably assign one member who will be responsible for looking at the rate of growth and reporting back to the committee. Possibly, someone will review whether the state should rely upon hydro to the extent the plan indicates it should. Another judgment is, should Vermont be interdependent, or should it be independent of other regions? Should it be self-sufficient? If we go that way, then our energy problems are going to be handled in a certain way."

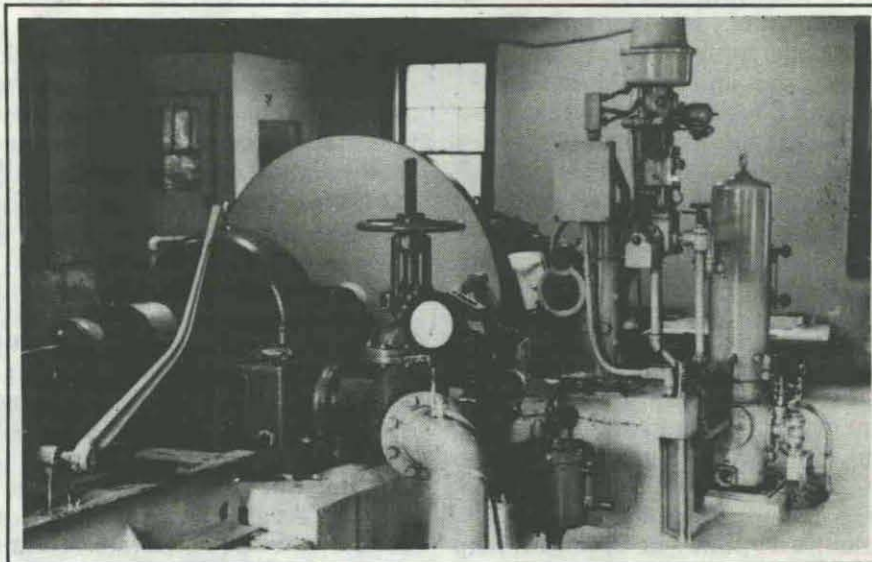
MM: "Tom Jorling has an interesting thesis about the business of regional self-sufficiency. When he spoke at last year's VNRC/Vermont Law School Environmental Law Conference, it was suggested that it might be better to depend on a string of small-scale hydro generators, despite the environmental trade-offs, and have local control of the production and distribution, than to be hostage to complex systems of distribution based in Quebec or the Mideast."

CR: "My experience, since 1967, when I was a member of the Board of Aldermen in Burlington, is that in some areas, particularly where you're dealing with fairly technical subjects, local control is not the blessing some people perceive it to be. Many times, the local Board of Selectmen doesn't have the staff to advise them as to the proper decisions. In some cases, the developer is well-financed and may swamp the local people. In other cases, where

you have lots of money at stake, you can pit neighbor against neighbor, and many people don't like to stand up and be counted against their neighbors. Sometimes the problem transcends the area. It's nice to say, 'we're going to have local control,' but when the problem affects the interstate community, you can't have local control."

"I have always been a firm believer in the public hearing process, and I think that to the extent that government and the agencies of government have an open concept of public hearings and religiously follow them and encourage them, that's probably the best protective device, rather than just paying courtesy to the concept of local control. What disturbs me at the moment on hydro projects is that the current administration in Washington, for allegedly economic reasons, is trying to curtail the number of hearings held by the regulatory agencies, and a lot of progress that was made in years past to open up the regulatory process to public hearings has gone down the drain. And without it, I think that citizens are deprived of one of their basic rights to be heard and to express their grievances. To the extent that the administration is curtailing this right, silently, which I think they're doing, many of our hydro decisions... well, let's say that I will not have confidence that all the interests have been adequately represented or heard."

Charles Ross is a lawyer and consultant on utilities and energy. Tom Arnold is the Director of the New England Rivers Center in Boston.



A 93-kilowatt water turbine at a hydroelectric facility on Mt. Equinox (near Sandgate). (Photo by Dr. Robert E. Tschorn of Sandgate.)

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