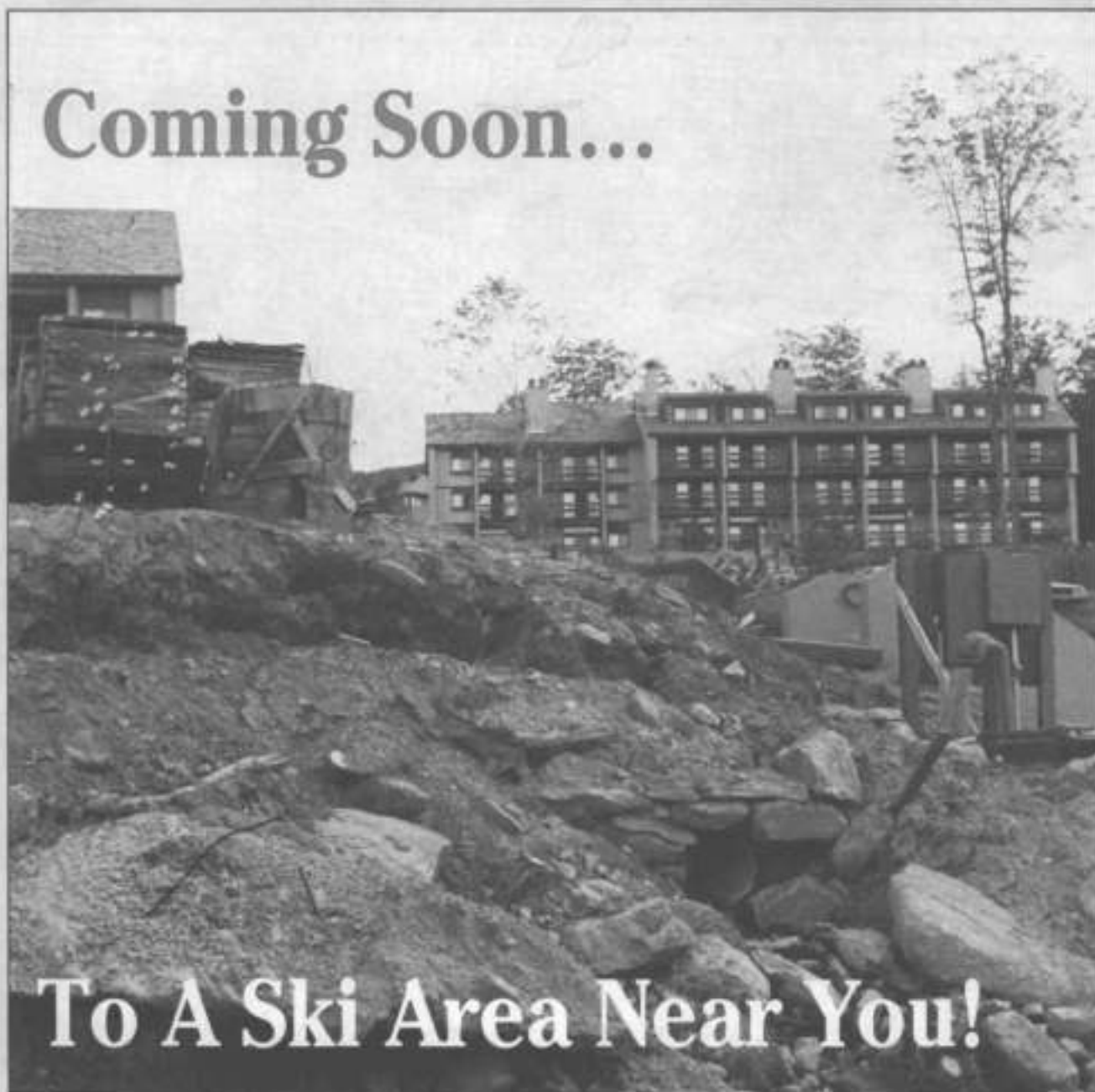


SUMMER 1984

Vermont Environmental **REPORT**

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Vermont Environmental REPORT

Summer, 1984

Published by the Vermont Natural Resources Council

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FROM THE FRONT OFFICE

When I moved to Vermont in 1971, public concern about pollution and environmental protection was at its peak. The Vermont General Assembly had enacted Act 250, the billboard ban and the container deposit law. The Environmental Board and district commissions were struggling to establish a track record that could withstand legal challenges, and implementation of the plans mandated by Act 250 was the order of the day.

I recall vividly the excitement associated with the Council's Project EPIC (Environmental Planning Information Center). Through that project the Council attempted to increase public understanding of, and participation in, the adoption of the capability and development and land use plans. Of course, the land use plan was not adopted and consequently Act 250 never achieved its intended objective of guiding the location and intensity of development.

While the Council involved itself in many issues during the 1970s and early 1980s, its central focus, it seems to me, has always been land use. Once the state land use plan was abandoned, it was particularly difficult, therefore, to witness the general retreat from planning that took place at all levels. There just didn't seem to be the will to continue to seek solutions to many of the problems which Act 250 had been designed to address.

The root problem is that locally controlled land use planning and zoning, no matter how effective, cannot possibly take into account, prevent, or even mitigate the effects of incremental growth.

Regional planning commissions might provide the answer if they were strengthened and adequately funded. But towns are not required to participate in regional planning commissions. Therefore any municipality which does not like what the regional plan holds for it can undercut the plan simply by withdrawing from the commission.

The failure to find a way to regulate incremental growth is underscored by the burgeoning of destination resort development around the state. Many ski areas are expanding rapidly to become four-season attractions complete with convention centers, hotels, and large numbers of condominiums and time-share vacation homes. These developments are often reviewed by local and state agencies one project at a time. For the most part, neither the permitting bodies nor the public are able to see the overall picture—the long-range plan—and to assess how the development will affect the community at large once it has been completed.

While it can be argued that development of whatever kind will have salutary effects on the local tax base, experience has shown that most development also places heavy demands on the resource base—on surface water, ground water, air quality, and the land itself along with the vegetation it supports and the beauty it represents.

I hope that ways can be found to protect the values that make Vermont so attractive to so many. If they cannot, rural Vermont will become what parts of southern Vermont have already become—a somewhat less congested version of southern New England, predominantly suburban in character.

Suburbanization implies many undesirable physical and social changes that Vermonters ought to be aware of and choose to accept only after participating in an open and public planning process. My preference is to resist the homogenizing effects of suburbanization and to pursue as best we can a rural future for Vermont which will emphasize diversity, individuality and interdependence. I hope, therefore, that VNRC maintains its strong interest in land use and continues its efforts to help Vermonters understand the relationship between the use of land and their aspirations for a better life for themselves and their children.

Since I will be leaving VNRC in September, this is the last opportunity I will have to speak to its members "from the front office." My time with the Council has been stimulating and personally rewarding. In large measure that is due to the support I have received from Council members in my efforts to lead the organization on a responsible and constructive course. My thanks go to all members and directors for their many kindnesses over the years.



Seward Weber, Executive Director

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How Clean Will Your Favorite River Be Tomorrow?

VNRC is concerned that the state's proposed new water quality standards could decrease water quality in Vermont. The Draft Water Quality Standards, in accordance with the goals of the Clean Water Act, designate specific uses of state waters and determine water quality criteria for those uses.

The Water Resources Board held two public hearings on July 12 on the proposed standards. VNRC and several other statewide conservation groups held an informational meeting one week earlier to answer questions and help people prepare for the hearings.

Many of the people testifying at the public hearings shared the belief that there are serious inadequacies in the draft, including the following:

- two thirds of Vermont's drinking water comes from the ground, but

the protection of groundwater is not incorporated into the standards;

- there are insufficient provisions for public participation in the Water Quality Standards decision-making process;
- the standards do not mention controls over pesticides, organic chemicals and metals;
- the standards do not include threshold criteria for land spraying of treated sewage effluent in headwater areas; and
- too much discretionary power is given to the Secretary of the Agency of Environmental Conservation which could leave him/her open to political pressures to relax the standards in certain cases.

In an attempt to reshape the standards to conform with the goals of the Clean Water Act, Don Hooper also suggested the state adopt a new class of waters called "AA" or pristine. Classification of these waters would reflect the public's desire for pristine waterways.

"In a state where tourism is the second largest source of income, protection of clean water is good for the economy," Hooper remarked.

At VNRC's request, the Water Resources Board extended the

public comment period from 7 to 30 days in order to allow more public involvement. They are accepting written comments until August 13. At that time, they will decide what, if any, changes will be made in the standards.

VNRC and the Connecticut River Watershed Council prepared a fact sheet on the proposed standards addressing the missing criteria and wording changes that they would like the Board to consider in preparing a final draft. For a copy, write VNRC, 7 Main Street, Montpelier, Vermont 05602. KB

To Dam or Not to Dam

Rivers flowing through the National Forests of the U.S. will have increased protection from environmental degradation thanks to a recent Supreme Court decision. In the so-called Escondido Case, the court ruled that federal agencies such as the U.S. Forest Service and U.S. Fish and Wildlife Service can impose conditions on dams constructed on federal land under their jurisdiction. This gives the agencies the clout they need to ensure that hydroelectric development on federal land doesn't degrade the environment.

VNRC, as the Vermont affiliate of the National Wildlife Federation, signed on to NWF's legal brief.

In a related decision, the Ninth Circuit Court of Appeals in Seattle has decided that the Federal Energy Regulatory Commission cannot exempt new small-scale hydroelectric projects from review or licensing requirements. This translates to more environmental review to determine if the small amount of electricity to be generated is more valuable than keeping the river free-flowing. KB



Coalition Calls for Cumulative Review of Destination Resort Development

A coalition of 10 Vermont conservation groups has called for a regional growth management plan to deal with the impacts of rapid development of destination resorts. At a press conference in May, representatives of the conservation organizations cited rapid growth in the Sherburne area as an example of a type of development that is placing excessive demands on the state's rivers and water resources, wildlife habitat, and municipal and state services. Organizations joining in the public statement include the Connecticut River Watershed Council, Ottauquechee Land Trust, Ottauquechee Natural Resources Conservation District, John Wheelock Titcomb Ottauquechee River Restoration Project, Raven Rock Trust, Inc., Vermont Group of the Sierra Club, Vermont Institute of Natural Science, Vermont Natural Resources Council, Vermont Wilderness Association, Vermont Association of Conservation Districts, Inc.

The coalition called on town officials in the Killington area to move ahead with the Interregional Development Impact Forum proposed in March by the Ottauquechee Two Rivers and Rutland Regional Commissions. The forum would collect information on effects of economic growth on public services and the environment.

Of particular concern is preserving the quality of the Ottauquechee River Basin.



Condominiums in the Mountain Green portion of the Sherburne Corporation's high density ski village. Photo by Jeff Axelrod.

The future of the basin has been addressed in the "Upper Ottauquechee River Basin Water Quality Management Plan" drafted by the Department of Water Resources. The coalition held a public informational meeting on the plan on June 7 in Bridgewater to answer questions and to help people comment constructively on the plan at the two public hearings on June 13 and 14.

Conservation representatives called attention to projected discharges of more than 2.7 million gallons of wastewater per day in the Upper Ottauquechee River Basin. Accommodating treated sewage effluent from ski-related developments—whether land sprayed or directly discharged into the river—could jeopardize the water quality in the headwaters of the Ottauquechee.

The conservation groups released a list of Act 250 hearings related to proposed development in the Kil-

lington area in which their members participated or planned to participate.

The coalition also called for consolidation in Act 250 review of applications from the Sherburne Corporation and other developers. The present piecemeal review hampers evaluation of the long-term impacts of the rapid growth.

At present, the coalition, along with legal counsel and expert witnesses, is monitoring and participating in many Act 250 hearings in the Sherburne area.

(On July 17, the Interregional Development Impact Forum was scrapped because only three of the nine potential member towns agreed to the proposal. Mark Blucher, Rutland Regional Commission Executive Director, said that it was his structure for the forum that was unpopular, not the idea itself, and that joint discussions are still possible.) KB

Duck Stamp Sales Add Land to Missisquoi Refuge

198 acres of wintering and nesting habitat for migratory birds and endangered species have been approved for acquisition at the Missisquoi National Wildlife refuge.

The refuge, close to the Canadian border in Franklin County, Vermont, will be enlarged using funds generated by federal duck stamp sales.

Since passage of the Migratory Bird Hunting and Conservation Stamp Act in 1934, receipts from the \$7.50 duck stamp have enabled purchase of over 3.5 million acres of wetlands for the National Wildlife Refuge System. Most duck stamps are bought by waterfowl hunters, who are required by law to carry them in the field, but they are also purchased in increasing numbers by conservationists.

The duck stamp is 50 years old this year, and Secretary of the Interior William Clark has launched a major campaign to encourage more non-hunters to support wildlife conservation by purchasing the stamp.

The idea of a duck stamp was conceived in 1934 by nationally-known cartoonist and conservationist, J.N. "Ding" Darling. Drought and the conversion of wetland areas to agricultural uses were severely threatening waterfowl nesting areas.

Darling envisioned a dependable source of funds generated by hunting stamp sales to be used for wildlife habitat preservation. He realized his dream when Congress passed the Migratory Bird Hunting

Stamp Act in 1934, and created the duck stamp.

Darling designed the first stamp, and since 1949 the design for each year's stamp has been chosen through the federal government's only regularly-sponsored art competition.

In spite of the revenues generated by duck stamp sales, the U.S. is losing nearly half a million acres of wetlands every year. These areas are vital not just to birds but to many kinds of fish and wildlife including endangered species, and commercially valuable fish and shellfish. They also provide other economic benefits by helping to control flood waters and improve water quality.

Increasing land prices have slowed protection efforts and duck stamp dollars don't stretch as far as they used to.

Thus, corporations and conservation organizations nationwide are actively assisting the U.S. Fish and Wildlife Service by encouraging their customers and members to go to their local post office and spend \$7.50 to help ensure wildlife habitat preservation. KB



Clean Air Act On Hold

Hopes for passing a Clean Air Act reauthorization bill including acid rain controls are waning as this session of Congress winds down.

Representative Henry Waxman, chairman of the Health and Environment Subcommittee held sessions in April to debate incorporating his acid rain bill, H.R. 3400, into the Clean Air Act reauthorization bill.

An attempt to strengthen the proposal by incorporating portions of the New England Congressional Caucus bill (H.R. 4404), failed early in the debate. This amendment would have required a 12-million-ton sulfur dioxide reduction (50%) instead of 10 million tons. The amendment would also have made the cost-sharing aspects of Waxman's proposal more equitable to New England and many other states.

Representative Eckert of Ohio cast the deciding vote to delete the acid rain portions of the Clean Air Act reauthorization bill. However, he has reopened the dialogue by announcing a proposal that would provide significant financial help for the Midwest while calling for a 10-million-ton reduction in sulfur dioxide.

(Rep. Eckert will be visiting Vermont in September to look at acid rain damage. A field trip is being organized by Don Hooper of VNRC, and Rep. Howard Dean of Burlington.) KB

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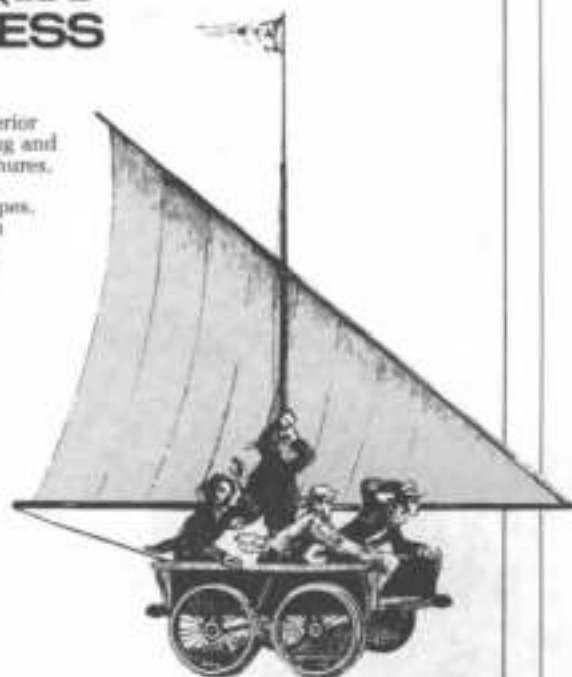
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Substitutes for Common Household Products

Many substitutes for chemical products are inspired by folk wisdom, herbal arts, and plain common sense. The following list was sent to us courtesy of the Massachusetts Audubon Society. As the circular noted, these home remedies don't always work as easily or as effectively, but by substituting more benign substances, you won't have so many worries about how to dispose of hazardous household products.

Instead of:

Air freshener

Drain cleaner

Furniture polish

Houseplant insecticide
Mothballs

Copper cleaner

Silver cleaner

Oven cleaner

Ants

Ant hills

Toilet bowl cleaner
Tub and sink cleaner

Upholstery cleaner

Carpet cleaner

Window cleaner

Try:

- Set out vinegar in an open dish.
- Put perfume on a bathroom lightbulb—heat will release the scent.
- Pour boiling water down the drain.
- Pour in one cup salt and one cup baking soda followed by a kettle of boiling water.
- Use a plunger or metal "snake."
- One tsp. lemon oil in one pt. mineral oil.
- Rub crushed raw nuts on wood for an oily polish.
- Wash leaves with soapy water and rinse.
- Spread newspaper around closets.
- Put cedar chips around clothes.
- Put lavender sachets with clothes.
- Fill spray bottle with vinegar and three Tbl. salt. Spray, let set and rub clean.
- Dip lemon halves in salt and rub.
- Rub with Worcestershire sauce or catsup.
- Soak silver in one qt. warm water containing one tsp. baking soda, one tsp. salt and a piece of aluminum foil.
- Salt, baking soda, water and elbow grease!
- Set oven on warm for 20 minutes. Turn off. Place a small dish of full strength ammonia on top shelf and a large pan of boiling water on bottom shelf. Set overnight. In the morning, open oven and let it air out awhile before washing off with soap and water.
- Place small sponges soaked in sugar-sweetened water wherever ants have been seen. Collect periodically and plunge into hot water.
- Sprinkle shelves with green sage.
- Pour a kettle of boiling water down each opening.
- One-half cup bleach.
- Rub with cut lemon.
- For bad stains, make a paste with peroxide and cream of tartar. Scrub with a small brush.
- Shaving cream.
- Mix ½ cup mild detergent with two cups boiling water. Cool until jelly forms. Whip with hand beater for stiff foam.
- Fresh stain: pour on a little club soda, let stand, sponge up.
- Older stains: Two Tbl. detergent, three Tbl. vinegar and one quart warm water. Work into stain and blot as dry as possible.
- Two Tbl. vinegar in one qt. water.
- Rub newspaper on the glass.



Jeff Axelrod

The Coloradofication of Vermont

Can Act 250 Meet the Challenge of Destination Resort Development?

Vermont is on a new wave of second-home development fueled by the expansion of major ski areas into four-season "destination resorts."

The Sugarbush Valley ski area plans to double its capacity from 6,150 to 11,650 per day. In nearby Warren, 200 condominium and duplex units have been built since 1979 and another 131 are in the works.

In Stowe last year, VNRC beat back a developer's attempt to downgrade an outstanding portion of the Little River to accommodate sewage from a 98-room hotel and up to 800 condominiums.

Significant expansions in both skier capacity and housing are planned at Pico, Stratton, Okemo,

Sharon Brown

Bromley, Mt. Ascutney and Haystack among others.

The ski towns of Sherburne and Mendon, however, may be the ultimate testing grounds for Vermont's land use and development control laws.

"What's happening in Sherburne is a scale of development Vermont has never had to contend with before," according to VNRC operations director Don Hooper.

Killington, Vermont's largest ski area, is also one of its fastest growing. According to the U.S. Census Bureau, Sherburne (home of the Killington ski area) grew from a

town of 34 housing units in 1960 to 1,110 units in 1980. The boom, however, has only just begun.

The Sherburne Corporation, which owns and leases approximately 7700 acres in the Killington area, does little direct building. It prefers to lease land to other developers. A total of 3,150 new condominiums are planned in just two of the projects adjacent to the ski area. This number is roughly equivalent to all the condominiums that have been approved in Vermont since December, 1981.

2600 units are planned for Killington Village, of which approximately 700 are either completed or under construction.

In the Falls Brook area of Sherburne, the Sunrise Group (which

iness property.

Robert Brown, zoning administrator for the town of Sherburne, remarked in the 1983 town report that "the most significant factor in zoning in 1983 was the dramatic increase in the number of condominiums." Brown reviewed applications for 489 new units in 1983 alone.

2600 units are planned for Killington Village, of which approximately 700 are either completed or under construction.

In the Falls Brook area of Sherburne, the Sunrise Group (which includes Hawk Mountain Corporation and International Paper Realty) has Act 250 approval for 124 units. At "build-out," the proposed development will contain

550 units. And although there are no applications pending for the Gondola Base area, this area is slated for hotels, motels, restaurants and recreational facilities in *Killington's Dynamic Plan* (December, 1983). The plan also calls for some additional clustered high-density and scattered low-density development in or adjacent to the existing ski villages.

Meanwhile, on the other side of the mountain, the Alpine Pipeline Company received an Act 250 permit on July 9, 1984 to build a 325,000 gallon-per-day sewer line from the Pico Ski Area down Route 4 to the Rutland City treatment plant. Two weeks later, Pico announced major expansion plans.

The developments at Sherburne

have revealed what State Representative Steven Reynes calls "the soft underbelly of Act 250." Taken together, these projects will obviously have significant environmental impact at both the local and regional level. But it is common for developers to request—and receive—approval for one project at a time, resulting in piecemeal development.

"It's hard to remember what's been approved and not built," says District 1 Environmental Coordinator Sally Greene. She believes the reason some developers request review for one project at a time is that Act 250 approval might be withheld if the cumulative impacts were considered. Also, some developers prefer not to spend the money on long-range design proposals.

Local planning and zoning provide an extra layer of environmental impact assessment, but Hooper and others question whether ski towns will give adequate consideration to the regional impacts of growth.

Because each individual town competes with its neighbors to attract tax dollars, one town's future growth plans may not be compatible with the plans of nearby towns.

At issue is whether a town's self-interest should take priority over regional growth planning.

"As long as town school budgets are linked to local property taxes, there will be almost unbearable pressure for towns to accommodate major taxpayers like the Sherburne Corporation, at the expense of sound regional planning," says Don Hooper.

Sherburne planning commissioner Shelly Brick disagrees. "No one makes decisions here haphazardly," she says. "It's ludicrous for outsiders to imply that we do." Brick points out that Sherburne is one of the few Vermont towns with both a town planner and a town manager. The commission does not press the Sherburne Corporation for a detailed long-range plan, she explains, because divulging those plans would give competitors an edge. "However, details relative to

Below: condominiums at Sherburne's Mountain Green ski village. Above, right: construction at the 400-acre Mountain Green site. Below, right: site work at the Sunrise condominium development in Sherburne.



Photos by Jeff Axelrod

all zoning and development issues are expected," she adds.

Brick and other members of the Sherburne planning commission resent VNRC's intervention in what they see as Sherburne's business. But Richard Carbin, chairman of the Ottauquechee River Valley Fund, maintains that the effects of the Killington expansion will not be confined to the town of Sherburne.

"Within the last six months, it has become clear that the potential impacts of this development could be catastrophic for the Valley," he said in a recent letter.

Don Hooper agrees. "Typically property values rise sharply in resort towns—often to the extent that average wage-earners can no longer afford to live there.

"Neighboring communities house much of the part-time and minimum wage work force and absorb the cost of educating more children at a net loss to those towns' budgets," he said.

An overall increase in electric rates could be the most widespread impact of the Sherburne development. Cort Richardson, associate director of the Vermont Public Interest Research Group, notes that "peak capacity requirements of ski areas are among the highest in the state and are considerably higher than average housing needs." The higher the peak, the more capacity an electric utility must purchase. These costs will almost certainly be distributed among Vermont utility customers in the form of higher rates.

Act 250's criteria 9(F) and 9(J) require that major developments "reflect the principles of energy conservation and that 'an excessive or uneconomic demand will not be placed' on public utility facilities and services.

But Ed Stanak, Environmental Coordinator in another district (#5), claims there is "an appalling lack of evidence" submitted under these criteria. Utilities depend on the ski resorts to supply accurate projections about future demand, and these projections are rarely challenged in Act 250 proceedings.

A probable increase in traffic volume is another area of concern.



The Sherburne Corporation provides winter maintenance on the two main roads into the ski area and makes a special annual donation to the town, based on the level of business activity, to help defray increased costs in municipal services attributable to the ski area.

However, the Sherburne development will affect traffic volumes on state highways and town roads in neighboring communities.

Route 4 from Bridgewater to Woodstock—the corridor traveled by many Boston area skiers—already has a "poor" Vermont Agency of Transportation sufficiency rating. The rating slips from "poor" to "bad" when adjusted for the heavy traffic count, making it one of the worst stretches of state highway in Vermont.

The most immediate and obvious environmental problem is disposing of wastewater.

Growth of Vermont ski areas has long been limited by two factors.

First, upland streams have a limited capacity to accept treated sewage effluent without degrading water quality. And secondly, the soils in most mountainous areas are often too shallow or too steep to accommodate on-site sewage disposal.

Effluent from most land disposal systems in Vermont eventually migrates to surface water, carrying with it some residual pollutants. According to the Ottauquechee Basin Plan, water quality surveys of Roaring Brook and the Ottauquechee River already show high levels of coliform bacteria as a result of numerous failing on-site sewage systems. The Department of Water Resources, the watchdog of Vermont rivers, has ordered many establishments along the two streams to periodically pump out septic tanks or shut down entirely.

Some of the existing water quality problems should be corrected by the construction of a municipal

sewage treatment plant. Sherburne Fire District No. 1 is building a 300,000 gpd (gallons per day) secondary treatment plant which will go on line in October.

The Sherburne Corporation is building a private 250,000 gpd sewage treatment plant.

Both Sherburne Corporation and the Fire District requested state approval to discharge treated wastes to the Upper Ottauquechee River. In late July, the Department of Water Resources announced its intention to grant a discharge permit to Sherburne Fire District No. 1.

The department is reluctant to grant additional discharge permits until it has completed studies of the river's ability to assimilate (absorb without degrading water quality) sewage effluent.

The department has made several estimates of the river's capacity, ranging from between 300,000 and 600,000 gpd in the winter to between 100,000 and 200,000 in the summer.

"We feel there's room for 300,000 in the winter and 100,000 summer, and we're not sure what else might be available," says permit coordinator Brian Quaker, "but prudence would dictate that we not approve more than that amount."

The Sherburne Corporation may be forced to dispose of some of the effluent from its new treatment plant on land, through spray irrigation and snowmaking. Spray irrigation is already employed at an existing 150,000 gpd plant, and Sherburne has state approval to spray 110,000 gpd at a site on Bear Mountain.

The Sunrise Group also has plans for spray disposal. Sunrise has permits to spray 58,800 gpd at the so-called Gondola site and 40,000 gpd at a site in Mendon known as "Spray Area F," provided that the wastewater receives secondary treatment via the Sherburne Corporation's new sewage treatment plant.

In general, the Department of Water Resources condones spray irrigation. In a July 24 department memo, Commissioner John Ponsetto termed spray disposal of

Towers for the new quadruple chairlift. Photo by Jeff Axelrod.



secondary effluent a highly effective and reliable means of waste disposal, which is likely to have less impact on ground and surface water quality than the other commonly used waste disposal methods.

Hydrologists Lawrence Dingman and Professor Francis Hall of the University of New Hampshire, foresee problems in approving spray irrigation sites in Mendon and Sherburne. In a July 6 letter to VNRC, they noted that this method of sewage disposal is relatively new to the mountains of Vermont. Most studies to date have been of short duration and have not generated information on the levels of sustained nutrient uptake and the potential for groundwater contamination.

"The implications of nitrate contamination of groundwater are serious," says Dingman, "and the extent to which spray irrigation removes nutrients, pathogens, and affects dissolved oxygen has not been established."

Sunrise Group and Sherburne Corporation are expected to request state approval for additional capacity and spray irrigation sites. In fact, the amount of effluent the developments in Sherburne may eventually generate is estimated by the Vermont Department of Water Resources at 2.7 million gallons per day. Because the river's capacity is so limited, 90% of this effluent will have to be sprayed on the mountainsides of the headwaters.

"The whole approach to this thing is exactly backwards," says



VNRC operations director Don Hooper. "The condos were sold in anticipation of building two sewage treatment plants, and the sewage treatment plants were built in anticipation of getting discharge permits. They should have determined the assimilative capacity of the river and the adequacy of each spray site first, and then determined the size of the sewage treatment plants and the number of condominiums."

Hooper predicts that this issue will attract increasing amounts of public attention and that parts of it will be resolved in court or before the Environmental Board. This summer, VNRC has participated in more than 10 different Act 250 proceedings in the Sherburne area, mostly involving ski trail, lift and

facility expansion by the Sherburne Corporation.

"At some point, the district commission will have to acknowledge that all these projects, when taken together, will have a gigantic impact on the area," says Hooper.

"The public will demand that the towns in the region develop some way to address regional and cumulative impacts in constructive, non-competitive ways."

He adds, "Politicians and state government will have to assert extraordinary leadership in helping all parties reach a goal of responsible growth without environmental degradation."

Sharon Brown is a VNRC intern and student at Vermont Law School.



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VNRC: The First Twenty Years

Part II

The idea of a Vermont Natural Resources Council occurred to several people about the same time, but the Council's official beginning was the result of a conference on "Resources in Transition" at Goddard College in 1963. The early Council was "a seat-of-the-pants" operation which relied heavily on the generosity of its principal volunteers. Nevertheless, VNRC was actively involved in every major environmental debate in the late 60's and early 70's, culminating in the spectacular flowering of land use and water quality legislation during Governor Deane Davis' term of office.

VNRC "went professional" in 1969, hiring Justin Brande as its first executive director and acquiring permanent offices in Montpelier. In 1971, with aid of major grants from the Ford Foundation and the National Science Foundation, VNRC launched the Environmental Planning Information Center (EPIC), a public education program involving Vermont's new Act 250.

In 1972, when the Environmental Planning Information Center (EPIC) was in high gear, VNRC had as many as 15 full- or part-time employees. A year later, it was a different world. Project EPIC came to an end along with the lion's share of VNRC's operating revenues, Deane Davis was no longer Governor, and the Northeast was bearing the brunt of the Arab Oil



The Old Depot
VNRC's home since 1979

Crisis and the nationwide economic recession.

VNRC "celebrated" its 10th anniversary with a fundraiser in Woodstock, and the VER reported that the Council had relied heavily on its savings in 1973 to stay in the black.

"My overriding memory is of how bad our financial situation was. It was gruesome!" recalls former board chairman David Marvin. Marvin, chairman of VNRC from 1974 to 1978, made financial solvency his top priority.

Former VNRC attorney Darby Bradley has equally vivid memories of those years. He had given up a legal practice and sold his house in Seattle to become the Council's first assistant director, but the subject was doom at Bradley's first meeting with the VNRC Board of Directors in September, 1974.

"The board had established a policy long before that when the assets of the organization got down to \$5000, there would be an automatic self-destruct," says Bradley,

"and the \$5000 would be used to wrap up the affairs of the organization and go out of business. At that meeting, I think we were five weeks away from hitting the floor."

The meeting broke up and Bradley returned to his office only to discover a letter from the Internal Revenue Service announcing its intention to rescind the Council's status as a tax-exempt 501 (c)(3) organization on the grounds that a "substantial" part of VNRC's activities during 1972 consisted of "advocating the enactment of legislation."

A New Agenda

Somehow, through a combination of good financial management and sheer determination, VNRC weathered the storm. The struggle to defend VNRC's claim to tax-exempt status ended in victory in June, 1975, and a "futures committee" began work on a long-range plan for the Council that would narrow the scope of its activities and make better use of its limited resources.

Efforts to obtain grants for special projects began to pay off in 1974 when the Conservation Law Foundation underwrote an environmental law conference cosponsored by VNRC and the State Planning Office. Over one-quarter of all attorneys admitted to practice in Vermont attended the day-long conference in Montpelier which was designed to "acquaint attorneys with the laws affecting land development in Vermont." A compendium of those laws assembled for the conference was institutionalized later as the Environmental Law Manual, which VNRC pub-

lished from 1975 to 1981.

VNRC received a second grant from CLF of New England in 1975 to help develop an open space preservation program for the Town of Hartland. In response to a request for assistance from the board of selectmen, Darby Bradley and VNRC chairman Jonathan Brownell designed four different open space protection programs involving various combinations of tax incentives and conservation easements. But even these modest proposals were too much for the voters of Hartland, who rejected them by a 2-1 margin in May, 1976. Interviews with local residents revealed concern that their taxes would rise, that they would lose the right to dispose of their land as they saw fit, a general suspicion of government interference, and a sense that the whole scheme amounted to "a lot of outsiders trying to cram something down our throats."

Bradley terms the Hartland project a "major defeat" but credits it with laying the foundation for two alternative methods of open space conservation—land trusts and the current use tax program.

In 1977, VNRC helped launch the Ottauquechee Regional Land Trust and the Lake Champlain Islands Trust. Both organizations protect open lands by negotiating individual agreements with private landowners.

These were just two of the many times VNRC has provided significant legal and administrative assistance to other environmental groups. The arrangement was formalized in 1976 with the establishment of the Environmental Law Service, administered by VNRC attorney Darby Bradley.

VNRC also took the lead in organizing the Fair Tax and Equal Education Coalition, which included such diverse groups as the Vermont Hotel-Motel Association, the Farm Bureau, VNRC, the Vermont Federation of Women's Clubs, the Vermont Association of Snow Travelers, the Vermont Timberland Owners' Asso-

ciation and the Vermont Federation of Sportmen's Clubs, among others.

The goal of the coalition, in the words of VNRC executive director Seward Weber, was "to convince the Legislature that a broad spectrum of Vermonters—not just land-owners—had a stake in maintaining open space in Vermont." They succeeded. In 1979, the coalition won legislative approval for the current use tax program, which allows farm- and forestland to be taxed on the basis of productive value rather than fair market value.



Dave Marvin

Out of the Woods

In the mid-1970s, energy attained equal footing with land use and development control as an urgent environmental issue. Many New Englanders looked to the untapped potential of Vermont's forests as a partial answer to the region's energy woes.

The Council was well prepared for the surge of interest in wood energy and scientific forest management. Early board members included many individuals with a strong background in forestry, and VNRC became the Vermont sponsor of the American Tree Farm Program in 1972.

The September, 1975, VER summarized a report by the Governor's Task Force on Wood Energy, which

concluded that development of a large-scale wood industry could provide up to 25% of Vermont's power and home-heating fuel requirements.

VNRC commissioned its own study of "Vermont's Forest Resource: Current Conditions, Trends and Policy Recommendations" by summer intern Richard Cowart in 1975. Wood energy was also the topic of a panel discussion at the Council's 1975 annual meeting.

In the summers of 1976-1978 VNRC sponsored a series of forest management workshops around the state in conjunction with the Vermont Department of Forests and Parks. The Council also collaborated on an experimental logging operation using whole-tree harvesting equipment in Duxbury, Vermont, in 1977-1978.

On the demand side of the energy equation, VNRC clashed repeatedly with state and federal officials in the mid-1970s over highway construction and "improvement" projects.

The first skirmish involved a proposed "East-West highway" connecting Albany, New York, with the New Hampshire coast via southern Vermont. According to the 1972 Activity Report, "The Council...helped the New England Regional Commission conclude that the cost of an East-West highway through northern New England would not be justified" and "provided leadership in...alerting the state to the economic and environmental problems involved in this proposal."

VNRC took on two highway projects in 1974. The Council obtained a declaratory ruling from the Environmental Board requiring the town of Peru to obtain an Act 250 permit before making major improvements in Forest Highway No. 3. But the ruling was overturned on technical grounds by the Vermont Supreme Court.

The Council also went to court to try to enjoin construction of the Route 2 Sleeper River interchange and its connecting spur to I-91 in

St. Johnsbury. The Council argued that the highway interchange was "environmentally destructive and unnecessary" as well as a possible harbinger of a four-lane highway between St. Johnsbury and Montpelier.

In December, 1974, the U.S. Second Circuit Court of Appeals ruled against VNRC. According to the VER, "The Court found that there was a violation of the National Environmental Policy Act (NEPA), but declined to halt construction since much of the project had already been completed."

Another of VNRC's principal activities in the mid-1970s was the natural areas project. This program began in 1973 when the Council, with the aid of a grant from the New England Regional Commission, identified and catalogued nearly 1000 important natural areas. In 1975 Robert Klein joined the VNRC staff. Working with a committee of naturalists, Klein refined the list of natural areas and pinpointed 64 most important sites. The project continued through 1977 with an exploration of various methods of protecting the sites through easements, covenants, land trusts and zoning. Klein also produced a slide/tape show entitled, "Natural Areas: Saving a Precious Resource," and collaborated with VNRC attorney Darby Bradley on **Charitable Gifts of Land**, a guide to state and federal tax incentives for land conservation.

Out of the Closet

There was another major change of direction in 1976, when the Federal Tax Reform Act eased restrictions on lobbying by tax-exempt nonprofit organizations. For the first time, VNRC could openly promote environmental legislation. It did so with considerable vigor, hiring its first full-time lobbyist in 1977 and joining six other environmental groups in sponsoring a weekly legislative alert in 1977-1978.

The collective effort paid hand-

"The Citizen activists of the 70s gave way to environmental lawyers and lobbyists."

some dividends. The Vermont Legislature enacted a ban on phosphates in household detergents and a scenic roads bill in 1977, and in 1978 it adopted the current use tax program and established a register of natural areas to be maintained by the Agency of Environmental Conservation.

VNRC's educational activities also blossomed in 1977. VER editor Nat Frothingham inaugurated a biweekly newspaper column entitled "This Side of the Mountain." With assistance from the National Wildlife Federation, VNRC produced and distributed 25,000 copies of "Bottles and Cans: The Story of the Vermont Deposit Law" to counter widespread misinformation about Vermont's experience with container deposit legislation.

1977 was the first year of the Council's Sewage Planning Project. A \$23,000 grant from the Vermont "208" water quality program enabled project director Michele Frome to prepare two handbooks on rural sewage treatment in Vermont—a catalog of sewage treatment alternatives and a community planning guide.

The project continued in 1979-1980 under the direction of Mary Hooper. Hooper secured more than \$50,000 in grants for an educational program designed to help

municipal officials analyze and solve rural sewage treatment problems. She also produced several publications, a series of workshops and a slide/tape show aptly titled, "Between a Rock and a Hard Place: Sewage Planning in Vermont."

VNRC's Environmental Law Service, in conjunction with the Vermont Law School and the Vermont Bar Association, sponsored another environmental law conference in 1978. The conference became an annual event and passed its sixth anniversary last year.

Other educational activities in 1979-1980 included publications on wetlands, the relationship between local property taxation and land-use decisions, and the deer herd.

The late 70s were busy and productive years for the Council, but with increased activity came added administrative and financial obligations.

"By 1979, we were so overburdened with other things to do that membership had slipped to less than 1000," reports executive director Seward Weber. In 1979, the Council hired Central Vermont Community College administrator and dairy farmer Don Hooper as assistant director. Hooper's mission was to boost the Council's membership and improve its information and communications programs. By 1981, membership had tripled, and it has remained stable at around 3000 members ever since.

Hooper's assistance with the day-to-day operations of the Council freed Weber to devote more time to legislative lobbying and other issue-related work. In time, Hooper himself showed considerable aptitude for lobbying. The two have shared this activity for the past few years.

Another major breakthrough occurred in 1978, when a \$25,000 gift to the Council became the basis of a permanent endowment fund. The endowment provided a measure of continuity and stability as well as some relief from the constant pressure of economic brinksmanship.

The Issues of the Eighties

A cornfield in Williston was the scene of the major environmental confrontation of the mid-1970s. In 1977, the Pyramid Companies of Dewitt, New York, requested an Act 250 permit for an 82-store shopping mall at the junction of Routes 2 and 2A, about six miles east of Burlington.

As Nat Frothingham wrote in the July, 1977, VER, "Act 250 has been tested before, but never quite in this way, with an application of this size and complexity."

Concerned that the economic and environmental impacts on surrounding communities would not receive adequate consideration, VNRC filed for party status. The request was denied, but VNRC's Environmental Law Service represented a coalition of citizens' groups opposed to the mall.

In October, 1978, the District Environmental Commission rejected Pyramid's bid for an Act 250 permit, but litigation would continue for four more years before the developer finally withdrew its application. Vermont courts eventually upheld the district commission's decision, but the case severely taxed the financial and personnel resources of state and local government.

VNRC participated in a similar legal battle in Berlin, Vermont, beginning in 1979. Two shopping malls were proposed for central Vermont, either one of which would contain more retail space than the shopping districts of nearby Barre or Montpelier. But the Berlin case never acquired the momentum of the Williston controversy.

"I don't think people felt in their guts that the Berlin Mall was going to hurt the way the Pyramid Mall would have hurt," was Darby Bradley's assessment. After four years of litigation, Developers Diversified of Cleveland, Ohio won state approval for a 280,000-square-foot mall in Berlin.

The two mall lawsuits were typical of the issues that would absorb



Darby Bradley

the Council's attention in the 1980s. Not only would the Council face larger and more powerful opponents such as the Pyramid Corporation, but the issues themselves would become increasingly complex.

"The field of operations shifted from the streets to the board rooms, committee rooms and legislative cloak rooms," says VNRC's Don Hooper, "and the citizen activists of the 70s gave way to environmental lawyers and lobbyists."

By the early 1980's, for instance, it was obvious that the so-called "alternative" energies came with their own set of environmental impacts. The consequences of a boom in hydroelectric power development was the theme of a December, 1980, conference sponsored by VNRC and the Vermont Public Service Board.

Environmentalists have also become more cautious about development of Vermont's wood energy resources. As Vice-chairman of the Forest Resource Advisory Council, VNRC attorney Darby Bradley helped draft a proposed state forest resource plan emphasizing management of Vermont's forests for wildlife and recreation as well as sustained yield of high-quality timber. Bradley also testified on behalf of VNRC at technical hearings on the Burlington Electric Department's proposed 50-megawatt wood-fired power plant and helped persuade the Public Service

Board to establish strict controls over wood chip harvesting operations and to retain continuing jurisdiction over the plant.

Farmland conservation has also taken on a new importance in the 1980s. Sustained economic recession and the energy crisis have made it clear that conservation of productive farmland is essential not only for aesthetic and scenic values but for the New England region's economic survival.

Farmland protection was the principal motive for VNRC's involvement in a legal challenge to completion of I-93 east of St. Johnsbury. When the Vermont Agency of Transportation announced plans in the fall of 1980 to complete the 11-mile super-highway to the New Hampshire border, VNRC joined two Vermont farm organizations and several local farmers in a lawsuit to enjoin construction, arguing that the new highway was unnecessary and that the Agency failed to adequately consider the effects of bisecting three substantial dairy farms. But construction proceeded while the case was in court and was nearly finished in June, 1981, when the Second Circuit Court of Appeals denied VNRC's motion.

In the 1970s, Vermont made great strides in cleaning up its lakes and streams. Similar protection for ground water is one of the major issues of the 1980s. The Vermont Agency of Environmental Conservation completed a state ground water protection strategy for Vermont in 1983, and in 1981 VNRC published a series of articles and a 16-page handbook entitled, "What's Going on Down There? Vermont's Ground Water" under a grant from the Environmental Protection Agency. But the issue of subsurface waste disposal and ground water contamination did not attract widespread public attention until the state discovered chemical contamination in three domestic wells in Williamstown in 1983.

VNRC remains very active in lob-

Continued on page 19

The End of an Era

VNRC and Seward Weber. They go back a long way. This September, as VNRC celebrates its 20th anniversary, it will also say goodbye to the man who has directed the organization for 13 years. Weber's resignation as executive director takes effect on September 15—one week after VNRC's 1984 annual meeting and 20th anniversary celebration. Seward Weber first went to work for VNRC in June, 1971, when the ink was barely dry on Act 250. VNRC itself was a very young organization. It had only recently acquired a staff and permanent offices and the wherewithal to pursue a major education program involving Act 250.

Seward's assignment was simply, "to run the organization." "I did everything," he says, "fundraising, creating all the procedures, getting out the newsletter, running meetings and conferences..."

Seward's "everything" allowed the organization to grow and to play an active role in all of the major environmental dramas of the 70s and 80s. Yet Weber himself maintained a low profile. In his view, his principal contribution to VNRC was "keeping the place together and providing a hospitable environment in which other people could carry on substantive programs."

Anyone connected with VNRC over the past 13 years knows that Weber also made very significant contributions to its programs. He served, for instance, as the Council's principal lobbyist for all but



Seward Weber

the last two years. He was deeply involved in the negotiations leading to the designation of a total of over 58,000 acres of Vermont wilderness lands in 1975 and 1984.

Weber was the prime mover of the Fair Tax and Equal Education Coalition, a broad-based group which won legislative approval for the current use tax program in 1979. He organized and raised funds for the Council's natural areas project and coordinated VNRC's collaboration with Vision, Inc., which led to townscape integrity projects in Windsor and Bellows Falls.

Seward was born in New Haven, Connecticut and educated in Poughkeepsie, New York. His interest in the environment stems from his undergraduate days at

Dartmouth, where, he says, "I majored in the Dartmouth Outing Club."

After college, Seward studied city planning at the University of North Carolina. He worked for several years as a planner in North Carolina, Rhode Island and Massachusetts. But planning was very urban-oriented in those days, and Seward missed northern New England and its rural ways.

In 1960, he had an opportunity to return to Dartmouth as an admissions officer. "For a Dartmouth alum, 10 years out, it was like going to heaven," Weber recalls.

He remained in college administration for several years, eventually serving as Dean of Men at Northwestern University in 1967-71.

Weber learned of the opening at VNRC on a trip to New England in 1971. He was hired as VNRC's second executive director in June, 1971, with the understanding that he would raise his own salary. "I've been doing it ever since," he says.

Seward will be available as a consultant to VNRC through mid-December. His plans after that are still flexible. "I'd like to stay in Vermont," he says, but "I need a new challenge."

VNRC's challenge is not to replace Seward—that would be impossible—but to find a new executive director with some of his unflagging dedication and solid managerial skills.

Seward, from all of us, heartfelt gratitude and best wishes. MM

bying at both the state and federal level, but the Legislature has been less receptive to environmental initiatives in the years since the Reagan Administration came to power.

Much of VNRC's legislative activities have been devoted to holding on to the gains of the late 60s and early 70s rather than advocating new programs. On the plus side were bills requiring legislative review and Act 250 approval for uranium mining in Vermont in 1980 and authorizing the Secretary of the Agency of Environmental Conservation to compile a list of threatened and endangered species in 1982. And in the spring of 1984, after four years of hard lobbying, the Council achieved its goal of eliminating the so-called "10-acre loophole" which exempted large-lot developments from Act 250 review.

Environmental organizations in the 1980s are faced both with heavier workloads and reduced means. Federal grants through EPA, the New England Regional Commission, the National Demonstration Water Project and other federally-funded programs have all but disappeared, greatly increasing competition for private foundation money. At the same time, tax cuts for upper-income taxpayers have removed an important incentive for charitable giving.

With far less grant money and fewer large contributors, nonprofit organizations like VNRC must capture—and keep—many more members and small contributors.

VNRC has succeeded at this as well as any organization, more than doubling its membership between 1980 and 1983. But the price has been a larger percentage of staff time and resources devoted to membership development and fund-raising at the expense of legislative lobbying, educational activities and other program work.

Meanwhile, there are indications that a strong VNRC may be more important than ever before.

Instead of a single large opponent such as Pyramid Mall, VNRC

today is contending with the statewide trend toward conversion of Vermont ski areas to four-season "destination resorts." In the ski towns of Stowe, Warren, Fayston, Waitsfield, Sherburne and Mendon, second-home development is proceeding at a pace unequalled since pre-Act 250 days. A steady stream of permit applications is testing the limits of Vermont's water quality regulations and demonstrating the futility of case-by-case review under Act 250.

"What we're seeing is the breakdown of regulations that were designed for simpler times," says VNRC chairman Mollie Beattie of Grafton. "We have to adjust to a whole new scale of development, and to learn to balance regional impacts with the religion of local control."

What else is on VNRC's agenda as it begins its third decade? Beattie hopes the Council will take the lead in articulating and promoting a positive vision of what Vermont should be—economically, environmentally, and socially. This vision would serve as a yardstick for public policy and agency decision-making as well as guiding VNRC's own activities.

"We are constantly making decisions about the quality of Vermont in quantitative terms because that's what Act 250 calls for," says Beattie. "At some point, we will have to come out and say what our vision of Vermont is and argue for it for its own sake." MM

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WOODY'S



Hooper Hits the Campaign Trail

VNRC Operations Director Don Hooper is cutting back his work schedule to half-time for September and October in order to campaign for State Representative from Orange County in the Vermont Legislature.

Instead of getting all of his time—days, evenings and weekends—the Council will have to make do with half days, three evenings a week, and every other weekend.

Meanwhile, the rest of the staff will be working double-time as usual.

What is VNRC?

The Information and Education Committee, chaired by Karen Meyer of Montpelier, has a slide show in the works on the hot topic, "What is VNRC?"

Norma Skjold, a writer for central Vermont's weekly, *The World*, is masterminding the production of a 10-minute slide/tape production on the Council for use in public presentations.

Other projects in the wings are a regular radio talk show, a new VNRC slogan, and a stand-up display depicting VNRC activities.

VNRC Goes High-Tech

The Council will soon adopt a new personal computer. Until now, our membership records have been maintained by one of our business members. Having an in-house computer will save time, money, and improve efficiency.

The staff, already hooked on word processors, eagerly awaits the adoption papers!

Council Drafting Energy Program

VNRC's Energy Committee is working on a fuel assistance/low income weatherization program that is completely supported by reduction of waste—namely, energy conservation.

The proposed program would substitute a home weatherization/construction improvement program for existing annual fuel assistance payments for eligible individuals.

The outstanding features of the program are:

- no additional taxes or funds will be required and
- annual fuel cost savings will completely pay for the program.

The energy committee will refine

the proposal and aim for action on it during the next session of the Vermont General Assembly.

Thanks to VNRC Survey Volunteers

VNRC would like to express its appreciation to the many members who agreed to participate in our recent survey.

Over 100 randomly selected members shared their opinions about VNRC and environmental issues in Vermont. The results of the survey will be available shortly, and will be summarized in the next issue of *Vermont Environmental Report*.

We would particularly like to thank the following individuals for interviewing members of the general public in connection with the survey: Mark Baldwin, Alger Beal, Richard Bizzozero, Margy Erdman, Galé Fenn, John and Barbara Hird, David Jillson, John Martin, Heide Nikolaidis, Mark Schroeder, Kathy Smith, William Uptegrove and Steve Wright. They all performed a most vital task pleasantly and professionally. Thanks again to each of you!

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THE COUNCIL

Protecting Agricultural Vitality

The VNRC Agricultural Task Force, headed by Mark Schroeder of Belvedere, is drafting an agricultural policy statement.

The three main objectives of the policy are to:

- maintain and, if possible, improve the economic returns to farmers;
- encourage farming methods which are in harmony with sound environmental practices; and
- monitor national legislation which will have a significant effect on farm economics and agricultural practices and the long-term viability of the family farm in Vermont.

IN MEMORIAM Lucy Bugbee

Lucy Mallary Bugbee, celebrated conservationist and founding member of the Vermont Natural Resources Council, died at her home in Bradford on July 13, 1984. She was 97.

Bugbee was best known for her interest in Vermont wildflowers. She had a spectacular wildflower garden, and travelled the length and breadth of the state advocating the protection of wetland habitat—especially for native wild orchids.

Lucy was honored by many state and national environmental, garden and wildflower organizations. In 1967, Gov. Phillip Hoff named a bog in her honor on the occasion of her 80th birthday, and VNRC honored Bugbee at a special ceremony in May, 1982.

The Council gratefully acknowledges memorial gifts in honor of Lucy Bugbee from the following individuals: Jacqueline M. Boyd, Katherine M. Kirkham, Anne Day Harrell, Virginia N. Leach, Marguerite A.R. Booraem, the Craig White Family, Mrs. E.M. Hemenway, Sue Westberg and Perry and Anne Merrill.

New Members

VNRC is pleased to welcome the following new members, who joined us in the months of May, June and July: Stephen and Donna Toulmin, Professor Shirley Griggs, Peter Rice, Mr. and Mrs. Christopher Ballou, Richard and Frances Brokaw, Mr. and Mrs. Kenneth W. Fullmer, J. Mark and Cheryl A. Lindberg, Fred Stetson, Sherry Frazer, William Edward Rudge, C.S. Gulick, Patti L. Houghton, C.F. Mace, Richard Robson, Dr. Thomas H. Ripley, Christine Goulet, The Sylvesters, Mr. and Mrs. Craig Wheaton Smith, Eric Anderson, Town of Underhill, D. Binzen, Robert Woolnington and Family, Mark Evans, Department of the Army N.E. Division, Chris Hopwood and Kim Butler, Kevin Mendik, Abbie Ross, Mr. and Mrs. Steven L. Wilson, Mrs. Gladys Howe Bramhall, B. Moser and J. Gordon, Daphne P. Gratiot, Tim Simmonds, Dr. and Mrs. Stephen Roberts, Karin Schumacher, Tom Gutowski, J. Robert Singer, Marcia A. Taylor, Nello R. Thompson, William and Ethel Uhlir, Jr., Marilyn Knapp, Frederick A. Quance, B. Sherman, Craig F. Stead, Lawrence Lisle, II, Max and Marion Otis, Sarah T. Richmond, Edward H. Dodd, Jr., Mr. and Mrs. H. Irving Crane, Jane A. Schmidlapp, Lloyd Potter, Meg Howard, Stephen Harper, Mr. and Mrs. Karl Wood, Abell & Kenlan, P.C., Jeff Bahitz, Frederick M. Barrett, Harley S. Bly, Corry C. Buckwalter, John Caldwell, Dr. Frank H. Duffy, Linda Becker, Janet and Bill Page, Marian J. Venn, Ellen L. Close, Maude N. Land, John Stillwagon, Esther M. Klitsch, Julie S. Kosson, M.R. Leidinger, Mr. and Mrs. Harold Smith, Jr., Richard L. Anderson, Rena E. Bruce, Ruth L. Comodi, Mr. and Mrs. Frederick Devereux, Jr., Peter Cole Gannett, Elga Gemat and David S. Westerman, Livelie C. Good, Leo A. Millette, Lyle J. Noyes, Mildred L. Parke, Catherine Reynolds, Joan Sibley, Lawrence and Elizabeth Vadnais, Jr., Homer and Katherine Welch, Norma Shortleeve, Leslie Williams, Rev. and Mrs. Arthur Bello, Mr. and Mrs. Edwin Bovill, William Dexter, Gerard Fountain, Eugene Fredette, Carl Harris, Pete and Bette Hurton, Barbara McGray, Mrs. Linda McKone, Christine Norman, S.K. Plume, H.F. Tincombe, Colleen Barton, Kathleen LaLiberte, Dr. Nancy Scattergood, Judy Sopenski, Mr. and Mrs. Frederick Swift, Clay A. Turnbull, Jane Coles Upton, Donald Albano, Janet Ballantyne, Mr. and Mrs. Richard Barnum, Kenneth Copenhaver, F. and J. Danforth, Mr. and Mrs. Seiden Hannah, Dr. David W. Harris, David Hoke, Betty Hunt, Pamela Roberts, Janet P. Saltzman, William Wessel, Mrs. Robert Wilson, Doris Bates, Susan Darrow, Mr. and Mrs. Jack Doores, Mr. and Mrs. Fred Eaton, Helen Faust, Glenn Gagne, Joseph Golie, Mr. and Mrs. Edward Graham, Roland Hoerr III, Charles Monty, Mrs. Ethel L. Morgan, Mark K. Pantuhova, Dolores M. Roy, Norman Hudson, Dr. Nancy Hunt, Mrs. M.H. Laundon, Robert "Jake" Stewart, Evergreen Marketing, Inc., Diane E. Harlow, Dr. E. Sense, Mr. Robert P. Snelling, Jon Clements and Maureen Vezina, P. Duro, S. Dumont, Edna Elliott, James Elliott, Charles F. Holman, C. Rinfret, Lyman and Mae Rowell, Dana Leavitt, Mrs. June H. McKnight, Nancy S. Coy, Dr. Laura C. Duntan, Mr. and Mrs. John Cote, Mr. Reg Fitz, Mark Hauser and Katy Locke, DeRoss Kellogg, Jr., Bud McLaughlin, Ms. Barbara B. Myhrum, Mr. and Mrs. John Richardson, Mr. and Mrs. John Hallblom, Caleb D. Kiley, Mrs. Laura Abbott, David Boody, Franklin J. Chrisko, Mrs. Davenport Cleveland, Edward A. Gray, Raymond S. Green, By Hand & Foot, Ltd., Mr. and Mrs. Lingelbach, John Lovoy, Brian Tokar, Grant Novak, Esther J. Urie, Ms. Betsy McGeun, Ann B. Hersey, Eleanor C. Smith, Don A. Bourdon, Melrose E. Huff, Mary Munger, Charles David Parent, Phyllis C. Shippee, Margaret Gross, Northern Architects, Inc., Abigail Bruce, Dorothy G. Lincoln, Mrs. Diane Perrin, Mr. and Mrs. George R. Stanley, T.V. Boggio, Mr. and Mrs. Archibald M. Brown, Emerson Frost, Mr. and Mrs. Herbert Huffine, Ms. Donna Underwood, Mr. and Mrs. Peter J. Collier, Peter Lavigne, Mrs. Eleanor C. Paine, Cinda M. Wiley, Miss Noelle Battis, Mrs. Barbara Steele, Dr. Hank Dimuzio, Stefan Gunlock, Elyn and Alastair Mackay, Vernon Free Library, George Atkins, Harold R. Albert, Dr. Herbert A. Durlow, Jr., Sabra Ewing, Sarah P. Foss.

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VNRC INTERNS



Sharon Brown

Sharon Brown, a second-year student at Vermont Law School, plans a career in environmental/legislative law.

During a summer, 1984, internship with VNRC, Sharon contributed to the **Vermont Environmental Report** and drafted a position paper for VNRC on the Current Use Tax Program. She also wrote a legal memorandum on Act 250's criterion 9(A) (impact of growth) as a tool for curbing piecemeal development in Vermont.

Sharon is a professional cross-country skier and avid bicyclist. Her work experience includes three years as education director at the Eliot Pratt Outdoor Education Center in New Milford, Connecticut, and two years as a correspondent for Petroleum Information International.

Sharon expects to receive her J.D. and M.S.L. degrees in June, 1986.



David Brook

As a legal intern for VNRC, David combined his water resources background with his legal training to help draft VNRC's response to Vermont's proposed water quality standards. He attended meetings with state officials, spoke as a panelist at public information meetings and presented written and oral testimony to the Water Resources Board. The standards were the first revision of Vermont's waterway classifications in six years, and they marked a significant shift in policy by the state.

David is currently attending Vermont Law School where he is working on a joint Master's and law degree. He has worked in state government as an emergency response specialist for hazardous substance spills, in water resources protection as a member of an environmental impacts assessment team, and as a director of a public interest clean water action project.

Fred Linthicum, a second-year graduate student at the Yale School of Organization and Management, spent 11 weeks at VNRC this summer thanks to a grant from the Rockefeller Brothers Fund.

Fred designed and conducted two opinion surveys for VNRC—one for the general public and one for VNRC's membership—comparing attitudes towards environmental protection and the work of the Vermont Natural Resources Council. The results of the study will be available in late August, and will be

Jeff Axelrod

During his summer internship with VNRC, Jeff acted as coordinator for a June 7 citizen's informational meeting concerning the Department of Water Resources Upper Ottauquechee River Basin Water Quality Management Plan and prepared VNRC's comments on the Plan. He also wrote a legal memorandum on vested rights of development permittees and took some of the photographs that appear in this issue of the Vermont Environmental Report.

Jeff worked as a research technician for a project studying plant environmental physiology at the University of Michigan Biological Station. He is an avid bird-watcher and cross-country ski racer.

Jeff will get a joint J.D./M.S.L. degree next May after completing his third year at Vermont Law School. He plans to take the Vermont bar next summer.



used to improve communications and to support VNRC's lobbying and planning efforts.

Fred, a California native, earned his B.A. degree from Occidental College and worked in human services planning and telecommunications marketing before returning to school this past fall. He is the co-coordinator of the non-profit interest group at Yale and is helping to develop a course in marketing for non-profit organizations. After graduation from Yale in May, 1985, Fred plans to pursue a career managing non-profit organizations.

Bernice Burnham

Our Lady of the Ledgers

It's the people, not the politics, that keeps an organization like VNRC going strong after 20 years. The Council has been blessed with an extraordinary number of dedicated volunteers, but a great favorite is Bernice Burnham of Waterbury, who has volunteered her services as treasurer, bookkeeper and payroll clerk for 12 years.

That kind of dedication is a great inspiration to everyone on the staff, but don't expect a long-winded sermon on environmental stewardship from Bernice. When I asked her what had kept her so involved with the Council for such a long period of time, she replied simply, "keeping the books."

Originally from Colorado, Bernice moved to Chester, Vermont at the age of 14. She met her future husband, Ivan Burnham, while attending business school in Boston. Bernice worked side-by-side with her husband at jewelry stores in Morrisville and Waterbury, and it was only by chance that she settled on portrait photography as her life's work.

In 1941, the Burnhams fronted the capital to start a photo finishing business in Waterbury, but their partner pulled out after two weeks. Ivan taught himself to process film while Bernice minded the jewelry store, and after hours she got a crash course in black-and-white printing. Eventually, Bernice was skilled enough to manage both businesses while her husband studied portrait photography in New York, served a two-year hitch in Philadelphia during World War II, and ran a metal moldings business out of Boston from 1946 to 1952.

In the 1950s, the Burnhams

added a color lab and moved to larger quarters on Randall Street in Waterbury. The project was nearly complete when Ivan Burnham passed away in 1962.

Once again Bernice was left alone to manage all three businesses—the photo finishing shop, the portrait studio and the jewelry store. "It was too much for me," she confesses. She sold the jewelry store within a year and shed the photo finishing business after her principal assistant died. But she continued to do portrait photography until five years ago.

Bernice enjoyed her work—especially photographing children and babies. If she'd had her druthers, she might have taken up painting or drawing—she still dreams of having a studio in her home. "But," she says, "I was cut out for business."

Bernice joined the VNRC board in 1968 at the request of former secretary-treasurer Perry Merrill. The fledgling organization lost no time availing itself of Bernice's talent for financial management. As treasurer of the organization, Bernice's name appeared on all of the Council's checks from 1972-1974. But sometimes that made her uneasy.

"I don't like to sign my name to something, and to be responsible for something without knowing more about it," she says. So Bernice became VNRC's bookkeeper as well as its treasurer. She continued to keep the books until 1977, when VNRC's accounts were computerized. Even now, she comes in twice a month to pay bills and keep the Council's payroll records.

VNRC is not the only beneficiary



of Bernice Burnham's extraordinary generosity with her time and talents. She has been involved with the Vermont Federation of Women's Clubs since 1946, where she has held a variety of offices including conservation chairman, budget chairman, secretary, vice-president and president; she's a former board member and secretary of the Central Vermont Audubon Society; she's past-president and treasurer for 20 years for the Vermont Photographer's Association; and she served on the Waterbury Board of Civil Authority for 18 years.

Bernice admits that she's "older than she looks," but she won't reveal her age. "When I do, it gets me in trouble," she says. "People don't think I should be doing the things I'm doing at my age."

Despite her busy schedule, Bernice finds time to do a fair amount of traveling. After her husband died, she started taking trips because she wanted "to see the world." Bernice has toured all of Northern and Western Europe as well as the Soviet Union, India, China, and Central and South America. This spring she took a bus trip through the badlands of South Dakota with a tour group from Waterbury. But she always comes home to Vermont because, she says, "Vermont is the nicest place there is in the world." MM

Seeing the Forest *and* the Trees

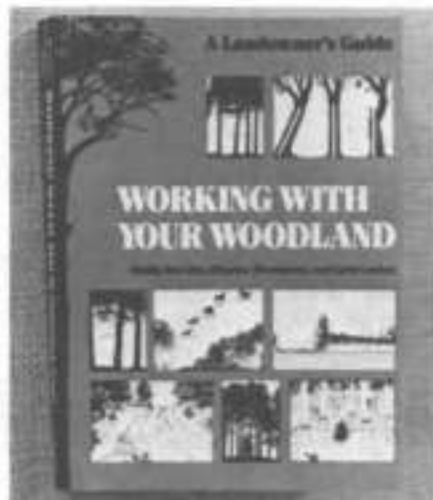
Sarah Thorne

Working With Your Woodland: A Landowner's Guide, by Mollie Beattie, Charles Thompson and Lynn Levine. University Press of New England, 1984. \$12.95 paper, \$27.50 cloth.

Some of us grew up with a handicap. We thought that a virgin forest was a timeless, changeless nirvana, that management for wildlife, recreation and timber couldn't co-exist, that depletion allowances and depreciation were only for oil investors and shopping mall developers, and that stumpage was either what was left behind after a timber harvest or a political campaign.

Fortunately for us, there are a few good sources to set us straight. **Working With Your Woodland: A Landowner's Guide**, by Mollie Beattie, Charles Thompson and Lynn Levine, is one of the best. This guide to forest management was written for New England forestland owners, aspiring owners and, I might add, anyone who is a steward of the land. The authors have wrestled a massive amount of technical information into an unusually comprehensive, coherent and comprehensible book on a subject often shrouded in myth, fear, and jargon.

Working With Your Woodland is a practical guide that puts the landowner squarely in the driver's seat. If the reader is looking for a complete do-it-yourself manual, he or she will be disappointed. The reader is given the understanding necessary for seeking and interpreting the advice of forestry professionals in preparation for making his or her own decisions. There



are succinct sections about forest history, ecology, woodland uses, foresters and their services, the components of a good management plan, management goals and techniques, timber harvests and sales, forestry finances and forest futures. The illustrations by Nancy Kelley, appendices and reading lists help distinguish this book as a valuable and *usable* reference long after the first or second armchair readings are over.

Among other things, the book will introduce you to some surprising facts. For example, despite our present concern about over-harvesting in New England, we cut only half our annual growth today whereas in the 1920s the harvest generally exceeded regrowth. And although our outrage is often directed toward "high grading" (cutting the best and leaving the rest), improper road construction and soil erosion may be even more damaging to the forest. Moreover, there is nothing new about gypsy moth infestations. A final fact to

leave you scratching your head about why we bother at all: in the southeastern U.S. pine grows to marketable size in one-third the time that pine requires in New England!

Not surprisingly, the authors recommend the use of professional foresters, but they urge and prepare the landowner to be the overall decision-maker. With the help of this book, landowners can learn what to expect and how to protect their interests during logging or timber operations with a well-written contract and adequate supervision. The overview of forestry-related taxation and finances should help landowners manage their forests more profitably. However, the uninitiated will need to read this section several times and to follow up with professional assistance.

Finally, the brief discussion of conservation easements arms landowners with a technique that they can use to prevent future development, subdivision or gross mismanagement of their land. Not only can they protect their own investments in timber stand improvement, trail and road networks, ponds and other habitat improvements, they can also give future owners the incentive to do more of the same by removing the development potential of the land and thereby lowering the purchase price. Although conservation easement donors can receive substantial income tax benefits, under the new lower tax rates the potential savings will rarely compensate for the loss in land value as the authors imply.

Beattie, Thompson and Levine are refreshingly optimistic. Their

vision of the forest is one of a dynamic, generous sustainer of culture, landscape, ecosystem and economy. Their emphasis is on deriving multiple benefits from the forest. This makes the book more appealing to landowners than the often one-sided tracts of forest industry spokesmen, hunters or recreationists. Thankfully, they also disclaim the moral fervor of many forest managers who contend that the only worthwhile forest is a managed one.

The authors conclude by probing the future of the forest. In New England, where private non-industrial landowners hold over half of the productive forest land, the responsibility for choosing a future for the forest should lie squarely with these landowners. The challenge the authors pose is this: as global forest resources are depleted and local stumpage prices increase, will landowners respond by managing their forests for sustained productivity, or will they cash in on short-term profits? Given the lack of continuity of ownership and management and the persistent lure of subdivision and development, the cash-in scenario certainly seems more probable.

Our ability to enhance the value of the forest for a diversity of pressing uses rests upon landowners' knowledge and confidence, continuity of management, and the long-term protection of the land resource. Forestry associations, land trusts, and local governments can help create a favorable environment for sustained intensive use and resource conservation. By reading this book, landowners will receive a healthy infusion of knowledge and confidence. All that is needed then is the inspiration that comes from a walk in the woods. Go to it!

*Sarah Thorne is assistant director of land protection for the Society for the Protection of New Hampshire Forests. Mollie Beattie, co-author of **Working With Your Woodland**, is chairman of the board of directors of the Vermont Natural Resources Council.*

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CALENDAR



September 11, 7:30 p.m.

The Vermont Institute of Natural Science will host an **Acid Rain Monitoring Network Review Session** to review this summer's progress in statewide acid rain monitoring. Tom Eagle and Laura Conkey, assistant professors of geography at Dartmouth College, will lead the discussion. The meeting will be held at the VINS loft in Woodstock and is free and open to the public. Call 457-2779 for more information.

September 13, 7:30 p.m.

The Vermont Institute of Natural Science will sponsor a slide/lecture program on the geology and plant ecology of Iceland. Meet at the VINS loft in Woodstock. Admission is \$2.00 for members, \$2.50 for non-members. Call 457-2779 for more details.

September 22, 8:30 a.m.-5 p.m.

The Solar Association of Southern Vermont and the New England Solar Energy Association will sponsor **"Energy Efficient Lighting '84,"** a one-day regional conference for architects, engineers, lighting designers, and energy management professionals on the latest developments in energy-efficient lighting. The registration fee of \$50.00 includes lunch and snacks. The conference will be held at the West Village Meeting House in West Brattleboro. Contact Adrian Segar at 257-4333 (days) or 257-1608 (evenings) for more information.

September 29-October 14, 10 a.m.-5 p.m.

The **5th Annual Wildlife Art Exhibition and Sale** sponsored by the Vermont Institute of Natural Science will be held at VINS loft auditorium. Over 100 original works of wildlife art, including prints and sculptures, by Vermont and nationally-known artists will be exhibited. Call 457-2779 for more information.

September 29, 10 a.m.-5 p.m.

The Central Vermont Audubon Society will host the **Third Annual Vermont Wildlife Festival** at Twinfield Union High School in Marshfield. The conference will feature exhibits on wildlife themes by conservation groups, educational institutions, government agencies and business firms, as well as live-animal shows, films, slide programs, music, indoor and outdoor games and activities for all ages. Admission: \$2.00 per person or \$3.00 per family. Lunch available.

October 5, 9:00 a.m.

The Center for Northern Studies in Wolcott, Vermont, will hold the first in a series of free public lectures entitled, **"Of Mammoths and Men:"** the Russian Plains circa 15,000 B.P. (before present). Olga Soffer of the University of Wisconsin will discuss recent archeological finds of mammoth bones in the Ukraine. For more information and future topics, call 888-4331.

October 10, 17, 24, 31, Nov. 7, 14.

A free fall course entitled **"Animals of the North"** at the Center for Northern Studies in Wolcott, Vermont, will cover the natural history of arctic and sub-arctic regions through literature, folklore and science. Each Wednesday evening, author and ethnographer Howard Norman will explore the legends, mythology and zoology of a different animal, including the bear, wolverine, whale, owl, and raven. Call 888-4331 for more information.



Gatherings In Behalf Of Life

Thursday-Saturday
October 18-20

A three-day celebration of life, sponsored by Vermont artists, Parents and Teachers for Social Responsibility, and Physicians for Social Responsibility will take place in Montpelier at City Hall, the Unitarian Church and the Savoy Theater. An address by Dr. Benjamin Spock, a concert by the Paul Winter Consort, and a performance by Bread and Puppet Theater will highlight the festivities. Your participation is invited. If you would like to contribute time, artwork, or financial support, please call Glenn Hawkes at 229-6137 or Nola Denslow at 888-2350.

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VNRC staff and interns, left to right: Marion MacDonald (kneeling), Jeff Axelrod, Kathy Bond, Fred Linthicum, Sharon Brown, Seward Weber, Cherie Langer, Don Hooper.

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Publications Order Form

VNRC has multiple copies of some publications which we're pleased to make available to members for the cost of postage and handling. Mark your choices on the order form below and mail with your check to: VNRC, 7 Main Street, Montpelier, Vermont 05602.

- ☐ **A Primer on Radiation** (Vermont Public Service Board, 1979). 16 pages. 50 cents.
- ☐ **Wetlands in Vermont** (VNRC, 1979). Describes characteristics and value of wetlands and extent of encroachments in Vermont. 71 pages. \$1.50.
- ☐ **Managing Rural Growth: The Vermont Development Review Process** (Vermont Environmental Board, 1983). Historical background, operation and evaluations of Act 250. 53 pages. 50 cents.
- ☐ **The Protection of Farmland: A Reference Guidebook for State and Local Governments** (National Agricultural Lands Study, 1981). 284 pages. \$2.50.
- ☐ **Current Use: A Quiet Success** (VNRC, 1981). A report on a 1981 survey by the Fair Tax and Equal Education Coalition. 12 pages. 50 cents.
- ☐ **Outdoor Recreation and Landowner Liability: An Exploration of Vermont Law** (VNRC and the Vermont Agency of Environmental Conservation, 1981). 10 pages. 50 cents.
- ☐ **Bottles and Cans: The Story of the Vermont Deposit Law** (VNRC and the National Wildlife Federation, 1979). 24 pages. 50 cents.
- ☐ **Use Value Appraisal of Agricultural and Forest Land in Vermont: A Citizen's Guide** (Current Use Advisory Board, 1983). 16 pages. 50 cents.
- ☐ **Designating Scenic Roads: A Vermont Field Guide** (Vermont Scenery Preservation Council, 1979). 30 pages. 50 cents.
- ☐ **What's Going On Down There? Vermont's Ground Water** (VNRC, 1982). 16 pages. 50 cents.
- ☐ **Charitable Gifts of Land: A Landowner's Guide to Vermont and Federal Tax Incentives** (ORIT, VNRC, LUT and TNC, 1982). 22 pages. \$2.50.
- ☐ **Guide to Conversions to Wood Energy** (Vermont State Energy Office, 1982). 28 pages. 50 cents.
- ☐ **Rural Sewage Treatment in Vermont, Book I: A Guide to the Alternatives** (VNRC and the Vermont Agency of Environmental Conservation, 1978). Basics of sewage treatment, sewage treatment laws in Vermont, and various sewage treatment methods. 145 pages. \$2.50.
- ☐ **Rural Sewage Treatment in Vermont, Book II: A Planning Manual** (VNRC and the Vermont Agency of Environmental Conservation, 1978). A step-by-step guide to the study and prevention of community sewage treatment problems. 113 pages. \$2.50.

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