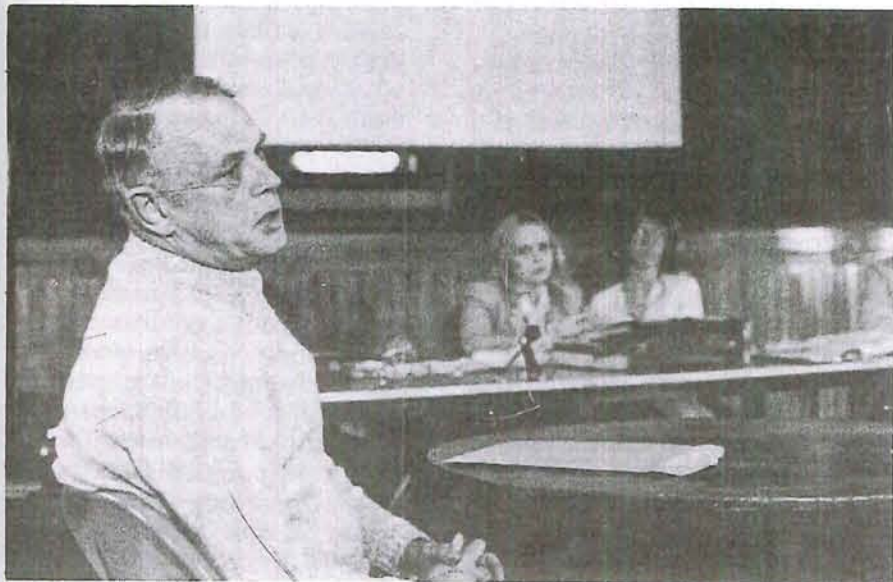


Vermont Environmental Report

May/June 1983

A Bimonthly Newsletter Published by the Vermont Natural Resources Council

Vol. 4 No. 3



The Water Resources Board held a hearing in May on the classification of the Waterbury River. William Albert, above, was VNRC's principal witness.

Public Hearing Set On Little River Reclassification

Should the Waterbury River below Moscow be reserved for fishing, swimming and other recreational uses, or should discharge of treated wastewater and other industrial uses be permitted? If you're a central Vermont resident concerned about the Waterbury Reservoir and the Waterbury River, you'll have a chance to speak up at a public hearing at the Arkeley Memorial Building in Stowe at 10:00 a.m. on Tuesday, July 12, on a proposal to reclassify a portion of this stream from "B" to "C" to accommodate sewage from two large ski resorts.

Trapp Family Lodge and the Mount Mansfield Company have formed a partnership known as the "Mansfield-Luce Hill Company." They want to build a new sewage treatment plant in Stowe to accommodate up to 307,000 gallons of wastewater per day from a 98-room hotel and up to 100 condominiums under construction at Trapp Family Lodge, and from a proposed 600-unit condominium development on Mount Mansfield. Treated effluent would be discharged to the Waterbury River, near the confluence with Barrows Brook, about one mile upstream of the Waterbury Reservoir's normal shoreline.

The project would have long-term consequences for the town of Stowe, since the new plant and projected expansions of the existing municipal sewage treat-

ment plant would command all of the remaining assimilative capacity of the Waterbury River.

The Mansfield-Luce Hill project also has statewide significance because it challenges some long-standing assumptions about Vermont's stream classification system. Vermont classifies its lakes and streams according to use, as follows:

- Class A. Suitable for public water supply with disinfection when necessary.

- Class B. Suitable for bathing and recreation, irrigation and agricultural uses; good fish habitat, good aesthetic value; acceptable for public water supply with filtration and disinfection.

- Class C. Suitable for recreational boating, irrigation of crops not used for consumption without cooking, habitat for wildlife and for common food and game fishes; and such industrial uses as are consistent with other Class uses.

The Water Resources Board administers Vermont's water quality standards. The Board has a policy that "It is in the highest and best public interest that all the waters of the State be of a quality conforming with or exceeding the classification standards for Class B water."

Historically, the Board has created Class C zones only when there were compelling public health reasons (as in the

(Continued on Page 2)

How Oregon Does It: The Oregon Land Use Act

It will be open season on Act 250's criterion 9(B) when the General Assembly reconvenes in January, according to some legislators. At a conference in May at Vermont Law School, Senator John Howland and others predicted a major effort to amend or repeal the subsection of Vermont's statewide land use and development control law that gives protection to primary agricultural soils.

Act 250 critics say the 11-year-old land use and development control law is the wrong vehicle for protecting Vermont farmland, that enforcement is poor, that the law doesn't control piecemeal development, that it has no real effect on large-scale developments of regional impact, and that administration is at times inconsistent and lacks overall direction.

Act 250, however, was never intended to be the sole means of controlling land use and development in Vermont. The statute originally had three parts: a regulatory section requiring State permission for large-scale development or subdivision of land, a Land Capability and Development Plan establishing standards and criteria for local and regional planning and for evaluating applications for development, and a Land Use Plan. The final component of Act 250 -- a statewide land use plan -- was never adopted by the Vermont General Assembly.

In the absence of statewide planning, Act 250 has been administered on a case-by-case, site-by-site basis. It should come as no surprise if the result has been a perplexing maze of sometimes inconsistent and ineffectual land use law.

There are many Act 250 watchers who feel that it's time to stop applying band-aids and schedule major surgery. Among the surgical options that deserve consideration is comprehensive land use planning.

In 1973, the state of Oregon adopted a novel statewide land use management program aimed primarily at the protection of productive agricultural land. The Oregon program provides for a state-local partnership in land-use decision-making. Land use planning there originates at the local level, but must con-

form to statewide standards.

In the following article, excerpted from the Summer 1982 issue of the American Planning Association Journal, Greg Gustafson, Tom Daniels and Rosalyn Shirack describe the Oregon program and evaluate its success in improving rural land use management at a modest cost to the public sector:

The American experience in farmland protection, though still in its infancy, has become increasingly more vocal, visible and complex. In recent years, an estimated three million acres of rural land has been converted to non-agricultural uses each year -- up to one-third of this total may from the cropland base.

State and local governments deal with the situation in different ways. The U. S. experience in rural land policy is slowly being enriched with a variety of innovative policy instruments.

In 1973, Oregon became a legislative pioneer in land use policy by adopting what may be the most comprehensive statewide land use management program in the nation. The Oregon program (1) makes local comprehensive land use planning mandatory, (2) requires that local comprehensive plans and implementing ordinances be reviewed at the state level for compliance with the statewide land use goals, (4) requires that local comprehensive plans and implementing ordinances be reviewed at the state level for compliance with the statewide land use goals.

WHY A STATE LAND USE ACT?

As has been the case in most states until recently, nearly all land use control authority in Oregon had been delegated to local governments. In the 1950s and 1960s, however, Oregon's population began to grow at rates exceeding the national average. Most of the increase in population has occurred in the fertile Willamette Valley, an area of about 5,000 square miles which contains 70 percent of the state's 2.6 million people. Agriculture is Oregon's number

(Continued on Page 4)

WILDERNESS WORKSHOPS

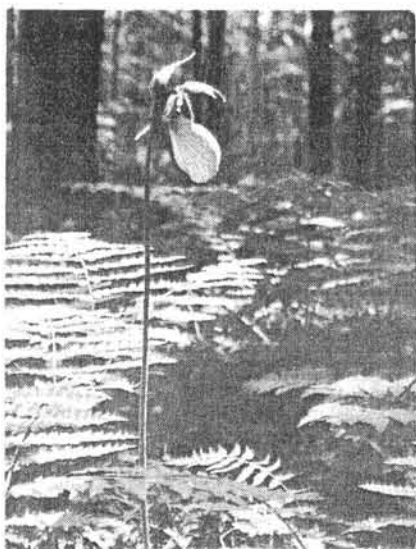
Stumped by the timber impacts of wilderness designation? Snowed by conflicts between cross-country skiers and snowmobilers?

Come to a workshop on Vermont wilderness, and learn how you can play a larger role in securing protective legislation for roadless areas in the Green Mountain National Forest.

The workshop will be led by Susan Alexander and Chris Coffin from the Washington office of the Wilderness Society along with Linda Hay and Hugh Henry from the Vermont Wilderness Association. They'll show slides, discuss the status of the Vermont Wilderness Bill, and help you prepare for the hearing in Manchester on July 9th.

The workshops will be held on four consecutive evenings at 7:30 p.m. as follows:

Monday, June 27, at the Vermont Institute of Natural Science in Woodstock;



Tuesday, June 28, at the Methodist Church on Main Street in Bennington;

Wednesday, June 29, at the Zion Episcopal Church parish house on Route 7 north of Manchester Center; and

Thursday, June 30, at the Brooks Memorial Library in Brattleboro.

Calendar

Tuesday-Thursday, June 28-30

The Vermont Institute of Natural Science hosts a Water Ecology Workshop for teachers at their headquarters in Woodstock. Beginning at 6:00 p.m. Tuesday, Michael Caduto and Jenefer Brettell will lead workshops on wetlands and open water habitats, with emphasis on ideas for elementary level activities. \$85.00 includes room and board, and college credit is available. For more information, call VINS, 457-2779.

Wednesday, June 29, 8:00-5:30

The Second Annual New England Resource Recovery Conference and Expo at the University of New Hampshire in Durham includes tours of local wastewater treatment, energy recovery, and recycling facilities, workshops on urban, rural and municipal recycling, innovations in the resource recovery field, secure landfill design, and marketing salvage materials. Registration is only \$12.00, including lunch, workshops and guided tours. To register, call the New Hampshire Resource Recovery Association, (603) 224-7447.

Wednesday-Friday, July 6-8

A teacher workshop sponsored by Shelburne Farms Resources explores the Natural and Cultural History of the Champlain Valley, emphasizing hands-on inter-disciplinary learning with direct applicability to the classroom. College credit available. Contact Dave Barash at Shelburne Farms, 985-3222, for further information.

Saturday, July 9, 9:00 a.m.

Wilderness Hearing at Burr & Burton Seminary in Manchester. Rep. John Seiberling, Chairman of the U.S. House Interior subcommittee, will preside. Call VNRC, 223-2328, for more information.

Thursday, July 12, 10:00 a.m.

Public Hearing before the Vermont Water Resources Board on the proposed reclassification of the Little River, in Stowe, at the Arkeley Memorial Building. See pages one and two for details.

Wednesday-Friday, July 13-15

Shelburne Farms in Shelburne, Vermont, will be the setting for a workshop for junior and senior high school teachers on Natural Resources of New England. The workshop will emphasize New England resource bases and the conservation issues surrounding them. College credit available. For more information, call Dave Barash at 985-3222.

Friday-Sunday, July 29-31

9th Annual Conference & Celebration of Rural Life at Johnson State College, Johnson, Vermont, sponsored by the Natural Organic Farmers Association. This year's NOFA conference features more than 50 workshops, demonstrations and panel discussions, keynote speeches by Grace Paley, Senator Patrick Leahy, Murray Bookchin, and a Saturday evening performance by Bread & Puppet Theater. The ever-popular NOFA Conference fills up quickly, so register early by writing: NOFA Conference, P.O. Box 101, West Charleston, VT 05872, or calling (802) 785-2852. Registration is \$25.00 for NOFA members and \$30.00 for non-members before July 1st, and \$30.00 and \$40.00 thereafter.

Saturday, September 10

VNRC Annual Meeting at Johnson State College in Johnson, Vermont. See the next VER for details.

Little River Reclassification

(Continued from page 1)
case of a municipal sewage treatment plant) and has limited the use of Class C zones to specific discharges. More recently, however, that policy has come under attack, and many State officials now feel that the Water Resources Board does not have the authority to impose such conditions in a classification order.

The Mansfield-Luce Hill Company proposes to create a new discharge within what the Water Resources Department maintains is an existing Class C zone. The Class C zone was created in 1963 to accommodate treated wastewater from the Stowe municipal sewage treatment plant. It begins at the Route 108 bridge in Stowe and extends to an indeterminate point approximately four-and-a-half miles downstream on the Waterbury River.

While researching an article for the Vermont Environmental Report, VNRC uncovered evidence that, in fact, the waters in the vicinity of the proposed outfall are Class B, not Class C. Under Vermont law, treated sewage may not be discharged to Class B waters.

On April 28, VNRC petitioned the Water Resources Board for a declaratory ruling on the classification of the Waterbury River at the point of the proposed discharge. The Board held a hearing on the petition in the Stowe Town Hall on May 13th.

VNRC's chief witness was William Albert of Montpelier, now retired, who was the first engineer hired by the Water Resources Department in 1957, and who was Director of Classifications for the Water Resources Board in 1963, when the Waterbury River was classified. Albert testified that the Mansfield-Luce Hill discharge would be within the Waterbury Reservoir, which is Class B water. He explained that the Water Resources Board had classified the reservoir to its "full spillway elevation" -- its height at flood stage -- instead of the normal maximum or "conservation pool." The elevation of the emergency spillway is 617.5, the conservation pool is at 592 feet, and the proposed outfall is at 603.

Martin Johnson, a consultant for the Mansfield-Luce Hill Company and former Secretary of the Agency of Environmental Conservation, was the principal witness for the Mansfield-Luce Hill Company. Johnson contended that the Department's position has always been that the Waterbury River is Class C to an elevation well below the proposed outfall, and cited as evidence a 1970-71 study, approved by Bill Albert, of the feasibility of siting a municipal sewage treatment plant in Moscow.

Both sides posited numerous errors in the 1963 classification order and accompanying documents in defense of their positions.

The Water Resources Board ruled on June 6, 1983, that the 1963 order contains "such inconsistencies that the Board can-

not conclusively determine the effect of its May 14, 1963, Classification Order with regard to that stretch of water between the George F. Adams Company dam (elevation 617.5) at Moscow and the conservation pool of the Waterbury Reservoir (elevation 592). The Board therefore concludes that this stretch of water has not been classified by Board action."

Since all waters not otherwise classified are Class B, the Board determined that the disputed section is Class B, and then initiated proceedings to determine whether it should be changed from B to C.

The public hearing on the proposed reclassification will be held at the Arkeley Memorial Building on Main Street in Stowe on July 12, beginning at 10:00 a.m. This is a rule-making proceeding -- not a contested case -- so anybody can comment. You don't have to be a legal party to testify and you don't have to be represented by an attorney.

In ruling on the classification of the Waterbury River, the Water Resources Board will consider water quality, public and private pollution sources, existing and potential uses of the river for public water supply, agricultural, recreational and industrial uses, suitability of the river as habitat for fish, aquatic life and wildlife, and "any other factors relevant to determine the maximum beneficial use and enjoyment of waters." If you can comment on any of these considerations based on personal or professional experience, you should make plans to testify at the July 12th hearing.

You don't have to register in advance in order to testify, but the Board asks that you file your comments by July 5, 1983, if you wish to present extensive comment either orally or in writing. For more information about the July 12 hearing, call Bill Bartlett, Executive Officer of the Water Resources Board, 828-2871, or VNRC, 223-2328.



VERMONT ENVIRONMENTAL REPORT

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Vermont Perspective

Local and Regional News

The use of herbicides to maintain railroad and power-line rights-of-way is getting a thorough examination these days because of recent actions by the Vermont Public Interest Research Group and a Waitsfield group known as Citizens Against Toxic Sprays (CATS).

Waitsfield landowners were in the news last fall, when they organized to oppose spraying along a Green Mountain Power Company corridor. The issue received further consideration over the winter in the Vermont General Assembly after Representatives Mary Just Skinner, Peter Welch and Doug Racine introduced a bill to improve landowner notification requirements.

On May 9, 1983, VPIRG petitioned the Vermont Agriculture Department, which regulates the sale and use of herbicides in Vermont, to

- ban the use of all herbicides containing the chemicals 2,4,D and/or Picloram,
- require personal notification of homeowners living along or adjacent to railroad or utility rights-of-way in advance of herbicide application, and
- require that non-spray alternatives such as manual cutting or vegetative management be made available to adjacent landowners upon request.

Agriculture Commissioner Dunsmore responded to the petition on June 8th. Dunsmore denied the ban on 2,4,D and Picloram, citing wide application of 2,4,D for agricultural, commercial and private uses, but he asked for a voluntary 30-day moratorium on the use of Tordon 101 and Amdon 101, which contain the two suspected carcinogens. He also denied the request for personal notification in advance of herbicide spraying, though he admitted that it was advisable in some situations and suggested that Vermont's notification regulations need to be updated. He deferred on the call for mandatory non-spray alternatives, saying that the Department has no jurisdiction in this areas, but he said he will propose regulations requiring all utilities to develop vegetative management plans for right-

of-way maintenance.

Meanwhile, the Citizens Against Toxic Sprays remain opposed to herbicide application along the Green Mountain Power right-of-way in Waitsfield, but there's a chance that the conflict can be resolved through negotiation. Sally Sweitzer, President of the Mad River Valley Audubon Society, deserves much of the credit for arranging an initial meeting between Green Mountain Power representatives and adjacent landowners and easement-holders. GMP will observe a moratorium on herbicide application in Waitsfield while negotiations are in progress.

* * *

There appears to be some movement toward compromise on Vermont wilderness legislation. A bill to set aside about 64,000 acres in the Green Mountain National Forest co-sponsored by all three members of Vermont's Congressional delegation now appears to be serving its sponsors' intended purpose: as a point of departure for discussions leading to a negotiated settlement.

U.S. Representative James Jeffords is spearheading the drive for a compromise bill. In a recent phone conversation, David Wilson from his staff reported that both sides now seem willing to talk, but the legality of snowmobile corridors remains a major stumbling block. Some wilderness advocates have offered exemptions from the motorized travel ban for a few key snowmobile trails within the boundaries of the proposed wilderness areas. But the U.S. House Interior Subcommittee which reviews all wilderness proposals feels that this is not in keeping with the original intention of the Wilderness Act and that it would establish a dangerous national precedent.

Meanwhile, Senator Patrick Leahy is working on incorporating an appropriation for snowmobile trail relocation into the Vermont wilderness bill. He feels confident that a bill with the support of the majority of Vermonters stands a fair chance of prompt Congressional approval.

Vermont Wilderness Gets a Hearing

More than 250 people jammed Dana Auditorium at Middlebury College last month for the first of two public hearings on a bill co-sponsored by Vermont's Congressional delegation to designate an additional 63,840 acres of wilderness in the Green Mountain National Forest. All three members of Vermont's Congressional delegation were present and listening attentively as nearly 70 people came forward to testify.

Many of the speakers took hard-line positions at this initial hearing and showed little interest in compromise. But more recently, there's been considerable discussion and some movement toward a negotiated settlement (see article at left).

Carmi Duso of the Vermont Association of Snow Travelers said he thought the wilderness issue was settled in 1979 when the General Assembly approved a joint resolution recommending no further wilderness in Vermont. Fred Thurlow of the Devil's Den Committee echoed Duso's sentiments, terming the current proposal a "breach of faith" and charging the three members of Vermont's Congressional delegation with "reacting to political pressure from powerful national minority groups."

On the other side, Warner Shedd of the National Wildlife Federation maintained that the bill to add four areas totalling 63,840 acres to Vermont's wilderness already represents a "substantial compromise." It is less than two-thirds of the 100,000 acres of roadless land in the Green Mountain National Forest identified by the Vermont Wilderness Association. Shedd also pointed out that the four new areas, added to 17,258 acres of existing wilderness at Lye Brook and Bristol Cliffs, brings the total to only 81,098 acres -- about 1.4% of the land in Vermont. "One per cent is not too much to set aside for the very large number of Vermonters who want and need wilderness," he said.

Many supporters of Congressional designation argued for wilderness on philosophical grounds. Peter Strong of the Conservation Society of Southern Vermont praised wild lands as "places of spiritual and physical renewal" where we can "measure our relationship to life's forces." Linda Hay of Earth First noted that there is very little public land in Vermont, and that "with millions of people within a day's drive of Vermont's Green Mountains, we have a special responsibility to protect them."

Wilderness opponents emphasized the negative impacts on snowmobiles and the logging industry. William Simons, Chairman of the Weston Board of Selectmen, said withdrawing these lands from timber production would result in a loss of "eight to nine million board-feet of timber per year -- enough for 400 houses."

Other speakers contended

that steep slope and lack of access make it uneconomic to harvest much of the timber in the proposed wilderness areas, and setting aside these few thousand acres would make very little difference in the amount of timber harvested in Vermont. Carl Reidel, past President of the American Forestry Association and former Chairman of VNRC, noted that Vermont harvests only about half its annual growth each year, and that the "three M's" -- markets, management and money -- are the prime determinants of the health of Vermont's forest products industry.

Effects on wildlife were also discussed by several speakers. Mae Ainsworth of the Windsor County Farm Bureau was concerned about reduced food and shelter for the deer herd, since brush-cutting and habitat manipulation are prohibited in a wilderness area. Biologists Steve Parren and Alan Pistorius, on the other hand, felt that wildlife would benefit from increased opportunities to study mature forest ecosystems.

There was some confusion about permissible activities in Congressionally-designated wilderness areas. Richard Baker, a Wallingford selectman, predicted a "beaver population explosion" resulting in "devastating floods of a magnitude never seen before" because of a presumed ban on trapping. Senator Leahy explained that trapping is allowed in wilderness areas, along with hunting, fishing, hiking, cross-country skiing and other traditional forms of outdoor recreation.

Motorized travel, however -- including snowmobiles, jeeps and dirt bikes -- is prohibited, and this is the source of most of the opposition to additional wilderness in Vermont.

Carmi Duso says there are over 100 miles of snowmobile trails within the boundaries of the four proposed wilderness areas, constructed and maintained largely with volunteer labor. They may be a fraction of the VAST network, but they're the neighborhood trails to snowmobilers in the southern Green Mountains.

Snowmobilers clearly have the most to lose from wilderness designation, and any resolution of this conflict should recognize and accommodate their needs. Warner Shedd, Wally Elton of the Sierra Club and others have proposed various compromises involving boundary adjustments and some trail relocation with federal assistance.

The next hearing on the Vermont Wilderness bill, before U.S. Representative Tom Seiberling's House Interior Subcommittee, will be held on Saturday, July 9, in Manchester, Vermont, at Burr & Burton Seminary, beginning at 9:00 a.m. If you'd like to testify, call Representative Jeffords' office right away (1-800-835-5500).

How Oregon Does It:

(Continued from page 1)
two industry (after timber) and, although the Willamette Valley comprises only 10 percent of the state's farmland, it accounts for 40 percent of the state agricultural revenue.
A statewide farmland property tax relief program was adopted in the early 1960s, but the results were at best a piecemeal approach to rural land use management. Residential growth outside incorporated areas was largely unplanned and unregulated, and the public costs of servicing the resultant random patterns of residential development were borne by the general taxpayer.

ed implementing ordinances by January, 1976. This process proved to be much more complex than the legislature had originally anticipated. By December, 1981, 9 counties and 115 cities had completed the state approval process (called "acknowledgement" in the Oregon program). Even before a local plan is acknowledged, however, local jurisdictions are required to make land use decisions which adhere to statewide goals.
To help local governments meet state-mandated planning responsibilities, the state provides planning grants to assist in financing local comprehensive planning. Local planning grants

allows agricultural lands already built upon, committed to, or needed for urban or rural non-farm uses to be exempted from EFU classification. Farmlands excepted from EFU zoning are usually designated for rural residential use.
Very specific provisions apply to land in EFU zones. Some nonfarm uses are allowed, but only if they are specifically permitted in the statute. Public review and approval of all divisions of land into parcels smaller than 10 acres is required. Beyond this, EFU ordinances must contain a provision for maintaining lot sizes appropriate for the continuation of

centration of any region in Oregon. During the 1970s, the population of the six counties grew by 23 percent. Meanwhile, data from the U. S. Census indicate that land in farms declined by over 20 percent (nearly 270,000 acres) between 1964 and 1978.
Evidence on the effectiveness of the Oregon program in moderating the loss of farmland from commercial agriculture is inconclusive. A very high proportion of all the farmland in the region has been zoned for exclusive farm use. However, the fact that land is zoned EFU does not necessarily imply that the land is now in, or will remain in, commercial agricultural use. The effectiveness of EFU zoning will depend primarily on how well minimum lot size restrictions work in retaining farmland in commercial agricultural production. To a great extent, this will be determined by the level of demand for the minimum size parcel for non-farm (rural residential or "hobby farm") uses.
On one hand, it appears that the influence of nonagricultural demands for land in EFU zones has been reduced. Assessors in the northern Willamette Valley indicate that minimum lot size restrictions have reduced the rate of conversion of farmland to nonfarm uses. Census data show only a slight decline since 1974 in "land in farms" in the northern Willamette Valley.
On the other hand, there is some indication that the reduction in farmland conversions may not be uniform among counties. In Washington County, where a thirty-eight acre minimum lot size is used, the smallest allowable EFU parcel sells for \$140,000 to \$160,000. Largely as a result of this high price, recent market activity for small EFU parcels has been negligible. By contrast, the Clackamas County assessor states that Clackamas County's twenty-acre minimum lot size has only slowed the rate of acceleration in the growth in the market for hobby farm parcels -- a substantial number of households seem willing to pay \$70,000

Table 1. Land use data, Northern Willamette Valley, by county

	Land in farms ^a				Estimated private land zoned EFU (April 1981) ^b	Predominant minimum lot size in county ^b
	1978	1974	1969	1964		
Clackamas County	169,890	174,891	210,055	261,815	153,600	20 acres
Marion County	307,742	295,285	302,065	333,625	316,000	20 acres
Multnomah County	42,894	37,511	70,792	66,728	24,652	38 acres
Polk County	194,858	200,632	213,108	215,055	207,000	20 acres
Washington County	152,442	161,050	172,055	200,345	121,000	38 acres
Yamhill County	194,941	199,269	227,555	254,975	268,000	40 acres
Northern Willamette Valley Oregon	1,062,767	1,068,638	1,195,630	1,332,543	1,090,252	
	18,414,484	18,241,445	18,017,850	20,509,500	15,000,000	

Sources: a. U.S. Bureau of the Census, Census of Agriculture, 1964-78.
b. Oregon Department of Land Conservation and Development, April 1981, Salem, Oregon.

Dissatisfaction with the results of this piecemeal approach was a major factor behind the adoption of Oregon's landmark statewide land use management program in 1973. The Oregon Land Use Act established a joint state-local role in land use planning and management throughout Oregon by requiring local governments to adopt and implement land use plans consistent with statewide standards.

MAJOR PROVISIONS OF THE OREGON PROGRAM

To carry out the state role, the Oregon Land Use Act created the Land Conservation and Development Commission (LCDC). The seven appointed Commission members are responsible for establishing and interpreting statewide land use goals (which have the force of law), reviewing local comprehensive plans for compliance with the goals, assuring broad citizen involvement in the planning process, and reviewing appeals of alleged violations of the statewide goals.
The nineteen statewide land use goals are the heart of the Oregon program. The goals identify the state's interests and establish minimum standards for locally administered land use planning and regulation. However, the legislature made an effort to assure that basic land use decision making responsibilities remain at the local level. The success of this state-local partnership is an issue of continuing debate.
Originally, Oregon's 278 planning jurisdictions (36 counties, 241 cities and towns, and 1 metropolitan service district) were to have completed their comprehensive plans and adopt-

account for most of the statewide cost of the Oregon program.

FARMLAND PROTECTION

Provisions for moderating the conversion of farmland to non-agricultural uses are probably the most specific and well-developed of the Oregon Land Use Act. The two provisions of particular importance here are requirements that (1) cities and counties jointly establish urban growth boundaries (Goal 14), and (2) all agricultural land outside of urban growth boundaries not specifically designated for nonfarm uses must be zoned for "exclusive farm use." (Goal 3).
The urban growth boundary (UGB) has been referred to as the most fundamental planning tool in the Oregon program. The UGB serves as the outer limit to urban development, thereby helping to ensure that increases in population will not interfere with or limit farm uses. The UGB also serves as an outer limit to the extension of public services and annexations -- thereby encouraging further urban development within its boundaries.
Urban growth boundaries must contain sufficient developable land to accommodate the anticipated population growth of about twenty years; but they are not intended to be permanent. They can be periodically amended, when warranted by public need, so long as the original standards are met.
Goal 3 (the agricultural lands goal) requires that all agricultural land outside of urban growth boundaries be inventoried for exclusive farm use (EFU). However, an "exceptions" process

existing commercial agriculture. The zone also provides for limitations on restrictions of farm structures or accepted farming practices, property inheritance taxation on the basis of the value of the land in farm use, and exemption from special district (sewer and water) tax assessments.

PERFORMANCE — AN INTERIM ASSESSMENT

It will be some time before there is sufficient evidence to fully assess the overall performance of the Oregon program as a means of maintaining land in agricultural use. Nevertheless, a brief look at the current situation in the northern Willamette Valley provides some useful insights. The six county area of the northern Willamette Valley has the highest population con-

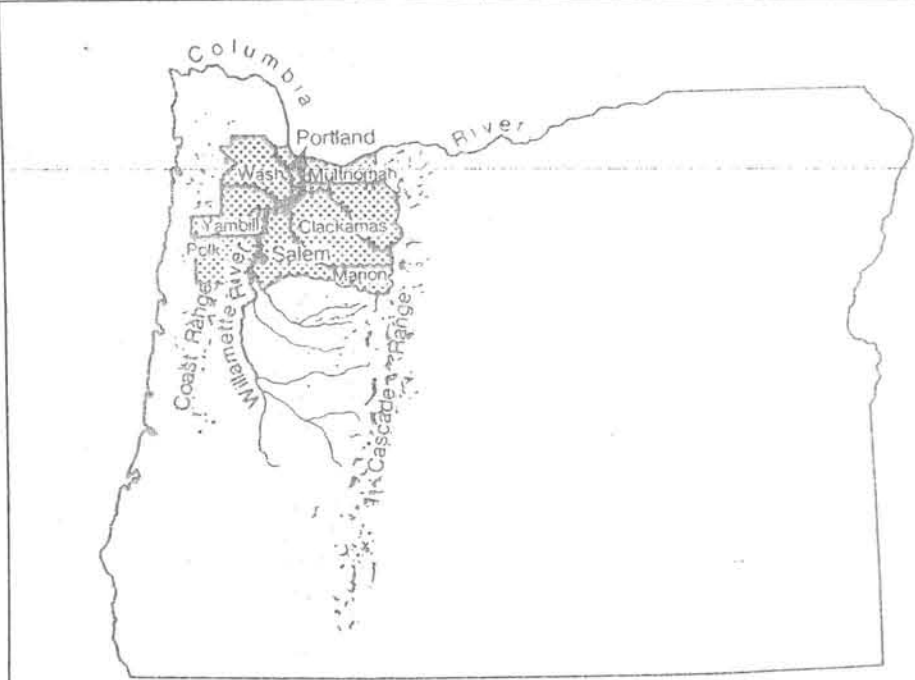


Figure 1. The Northern Willamette Valley

The Oregon Land Use Act

to \$80,000 for a twenty-acre site in an EFU zone.

Another indicator of the performance of the Oregon program in moderating the conversion of farmland to nonagricultural uses is provided by the record of counties in the administration of EFU zoning. Conscientious application of the statewide standards at the county level is crucial to the success of EFU zoning in maintaining the stability of commercial agriculture in urbanizing counties. The only evidence available from the interim or pre-acknowledgment stage in the Oregon program is not encouraging. A recent survey of county decisions on dwelling requests (farm and nonfarm) and farmland divisions in EFU zones — the primary administrative decisions in which counties are required to apply the statewide EFU land use standards — indicates that a majority of these decisions in Willamette Valley counties from 1978 to mid-1980 may have been "improper" and might not have been approved had they been appealed to the Oregon Land Use Board of Appeals. Land has been broken up into parcels smaller than the minimum lot size in EFU zones and nonfarm dwellings have been readily approved, often without sufficient findings.

Clearly, once Oregon gets beyond the pre-acknowledgment stage, the administration of EFU zoning at the county level must be improved to achieve the full intent of the agricultural lands goal. If not, it will be difficult to prevent a gradual erosion of the statewide land use standards.

MINIMUM LOT SIZES AND ECONOMIC TRADE-OFFS

The goal of the Oregon Land Use Act with respect to agricultural lands is clearly directed toward maintaining commercial agriculture. Fulfillment of this statewide goal, however, does not imply that local governments must (or should) impose an inflexible permanent freeze on all conversions of agricultural land to developed uses. Good public policy in this context requires the recognition and balancing of conflicting, simultaneously-held social objectives: efficiency in the allocation of land among competing uses on one hand, and protection of individuals' private property rights on the other.

The Oregon Land Use Act attempts to achieve this balance through the nineteen statewide land use goals, of which the agricultural lands goal is clearly the most important. Exclusive farm use (EFU) zones containing minimum lot size restrictions are the principal means used by counties for protecting land designated for commercial agriculture.

In determining the minimum lot size to be used in an EFU zone, elected county officials face a difficult and controversial trade-off — both the social benefits and the private costs of

land use control increase as the minimum is increased. As the minimum lot size increases, the amount of land converted to nonagricultural use declines, and reduced uncertainty about future land use in EFU zones creates incentives to maintain or increase the long-run productivity of the agricultural land base.

Private costs, the negative ef-

feated by increasing margins — 57 to 43 percent in 1976 and 61 to 39 percent in 1978.

The Oregon experience will provide some potentially valuable lessons in rural land use control. It has already illustrated that there may be unanticipated problems in designing a workable joint state-local land use decision-making process. By providing statewide standards for

of equity (land value) impacts. In Oregon, the early adoption of land use controls has probably helped minimize the magnitude of adverse land value impacts. Once exurban sprawl and parcellation are well along, overly optimistic expectations about future capital gains may make untenable what would earlier have been a reasonable regulatory program.

Table 2. Price of three residential location alternatives, Clackamas and Marion Counties, Oregon, 1980

	1/3 acre lot with city services	4 acre site in rural residential zone	20 acre parcel in EFU zone
Clackamas County	\$23,000-25,000	\$32,000-36,000	\$70,000-80,000
Marion County	\$14,000-19,000	\$24,000-32,000	\$60,000-70,000

Source: Interviews with farmland appraisers, Clackamas County and Marion County, Oregon.

fect on land values of land use regulation, also increase as the minimum lot size is increased. These costs, which are borne by current landowners, are the origin of much of the opposition to rural land use controls. The reallocation of land values and profit expectations could not be expected to do otherwise.

There is no question that actual decreases in land value (which occur when regulations are implemented) are valid impacts which should be carefully weighed in the policy-making process — although these impacts need not necessarily be compensated. However, since landowners have the opportunity to re-evaluate investment options at the time regulations are implemented, any effect on the rate of future land value increases after this time cannot be considered valid equity claims against land use regulation. Arguing for compensation for such effects is, plainly, asking government to guarantee the profitability of speculation in rural land.

The implications of this point are probably obvious but very important for a conceptual understanding of the efficiency-equity trade-off in the Oregon program (and in all other programs of noncompensatory regulation in rural land use control). The benefits of effective rural land use management are cumulative over time. The equity costs of regulation are not. Hence, a static or short-run analysis of this economic trade-off is clearly inappropriate and will produce results biased in favor of equity concerns.

CONCLUDING COMMENTS

The Oregon program is a unique and valuable experiment in land use management. It is truly comprehensive, breaks new ground in establishing joint state-local land use management decision making processes, and offers the promise of substantially improving land use management in Oregon at a relatively modest public sector cost. Furthermore, the political durability of the Oregon program has been demonstrated. Statewide referendums to repeal the act in 1976 and to nullify the statewide goals in 1978 were de-

land use planning and implementation carried out through an ongoing local administrative process, it was presumed that a state land use role could be established without a substantial erosion of local flexibility. Perhaps with further refinements of the state and local roles and increased specificity in the statewide land use standards, this goal can be more nearly realized.

Insight on the impact of minimum parcel size restrictions on land use values must await the accumulation of additional evidence and analysis. However, the Oregon experience does re-emphasize the importance of conclusions of other analysts that land conversion expectations are a major determinant

Greg C. Gustafson is an agricultural economist with the Natural Resource Economics Division, Economic Research Service, U.S. Department of Agriculture, located at the Department of Agricultural and Resource Economics, Oregon State University. Thomas L. Daniels, formerly of Burlington, Vermont, is a graduate research assistant, Department of Agricultural and Resource Economics, Oregon State University. Rosalyn P. Shirack is a policy and research specialist with the Oregon Department of Land Conservation and Development, Salem, Oregon. This article was excerpted with permission from the American Planning Association Journal.

The Nineteen Goals

In Oregon, comprehensive land use planning occurs at the local level but must conform to statewide planning standards, or goals. The 19 statewide planning goals are, in a nutshell:

- (1) To develop a citizen involvement program that ensures the opportunity for citizens to be involved in all phases of the planning process.
- (2) To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.
- (3) To preserve and maintain agricultural lands.
- (4) To conserve forest lands for forest uses.
- (5) To conserve open space and protect natural and scenic resources.
- (6) To maintain and improve the quality of the air, water and land resources of the state.
- (7) To protect life and property from natural disasters and hazards.
- (8) To satisfy the recreational needs of the citizens of the state and visitors.
- (9) To diversify and improve the economy of the state.
- (10) To provide for the housing needs of the citizens of the state.
- (11) To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.
- (12) To provide and encourage a safe, convenient and economic transportation system.
- (13) To conserve energy.
- (14) To provide for an orderly and efficient transition from rural to urban land use.
- (15) To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River Greenway.
- (16) To recognize and protect the unique environmental, economic and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic and social values, diversity and benefits of Oregon's estuaries.
- (17) To conserve, protect, where appropriate develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. . . .
- (18) To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas
- (19) To conserve the long-term values, benefits and natural resources of the near-shore ocean and continental shelf.

VNRC has a bulging file on the Oregon Land Use Act. If you'd like to read or photocopy any of these materials, call or write Marion MacDonald, VNRC, 7 Main Street, Montpelier, Vermont 05602, 223-2328.

VERMONT HERITAGE FESTIVAL

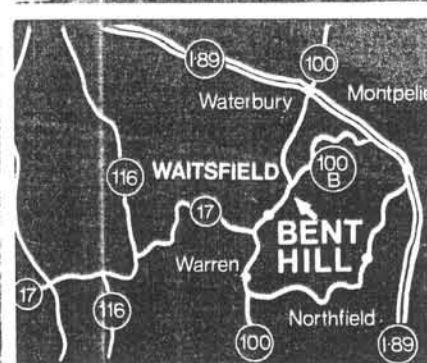
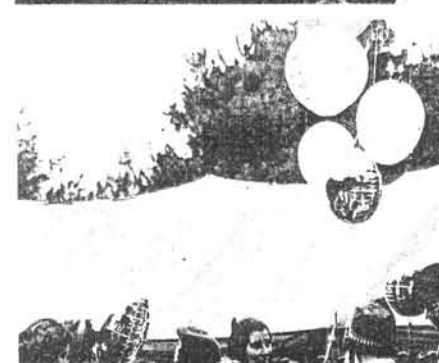
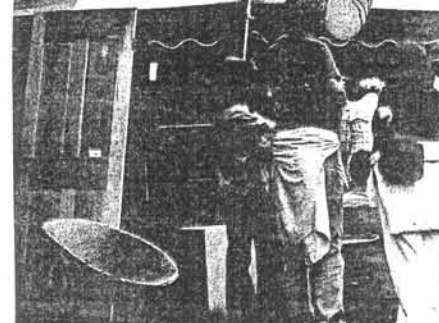
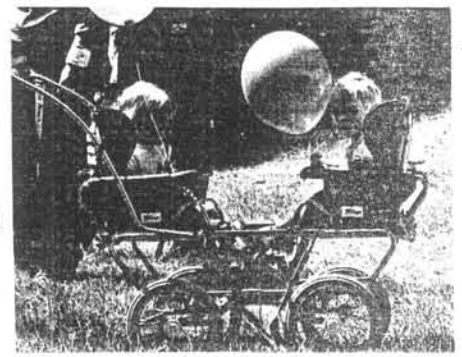
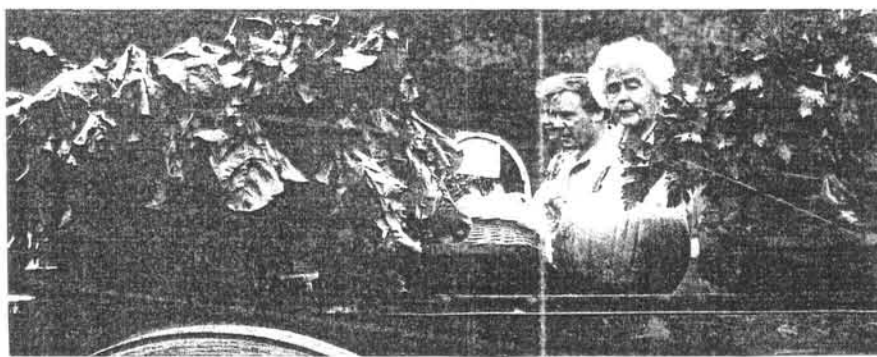
Saturday, Aug. 6 11a.m. to 6p.m.

Waitsfield, on the common of historic Bent Hill Settlement

NOON: AUCTION of contributed art, crafts, merchandise and services

Displays and demonstrations of early American crafts and tools

Music, entertainment, lunch and beverages befitting a FESTIVAL!



The Council

PREPARE TO CELEBRATE!

Grab a pencil and mark Saturday, August 6th, on your calendar as the date to bring the whole family to the Third Annual Vermont Heritage Festival at historic Bent Hill Settlement in Waitsfield. VNRC and Carolynne and Gregory Schipa of Weather Hill Restoration host this annual tribute to Vermont's

cultural and environmental heritage, which has become VNRC's major fundraising event of the year.

With the meticulously-restored colonial homes of Bent Hill as a backdrop, spinners, weavers, Windsor chair-makers, blacksmiths and jugglers will demonstrate their crafts. The day's festivities also include carriage rides, traditional music, fine food served all afternoon by the Black Forest Cafe, and a lively auction with virtuoso auctioneer Dick Hathaway.

VNRC still needs donations for the auction on which it depends for 80% of the proceeds from this event. If you haven't done so already, we hope you'll rummage through the attic and see if you have a few "buried treasures" -- things you no longer have a use for but which might be of great value to someone else.

If you'd like to donate to the Vermont Heritage Festival Auction, please call Margy Erdman at VNRC, 223-2328, before August 3rd. Your gift will be a significant contribution to the success of this event. Hope to see you there!



We're reasonably certain that Alexander Montgomery Fischer, born April 24th, 1983, is the youngest member of the Vermont Natural Resources Council. Alex became a full-fledged member in his own right at age three weeks and five days. He comes by his environmental commitment honestly; he's the son of R. Montgomery (Monty) Fischer and Cheryl Fischer of Montpelier. Cheryl Fischer (formerly Cheryl King) has been Executive Director of Connecticut ZPG, public participation coordinator for the Vermont Department of Water Resources and Environmental Engineering, and a long-time active member of VNRC. She developed

Vermont's ground water protection strategy, worked on the Lake Champlain Basin Study, and is the current Chairman of the Board of Directors of the Lake Champlain Islands Trust. Monty worked for the New England Rivers Basins Commission for 10 years, belongs to environmental and conservation groups "too numerous to mention," has served on the Board of Directors of the Lake Champlain Islands Trust since 1977 and the VNRC Board since 1979, and is currently the Vermont Co-chair of the Lake Champlain Committee and the President of the Champlain Maritime Society. Way to go, Monty, Cheryl and Alex!

We're pleased to welcome to VNRC the following new members, who joined us in March and April of this year: W.G. Hewlings; Mrs. Sam Sparhawk; Gail Harrison; Savoy Theater; John & Ann Mudgett; Gerow Carlson; H. Avoise Blackway; John S. Tidd; Judge Sterry R. Waterman; Joanne B. Feldman; John Assid; Mr. and Mrs. Laurence Howe; Sarah H. Adams; Bud & Dianne Sibley; Jean Machia; Sidney Thomas; Jim B. Sebastian; Michael J. Storrs; M.J. Philippa Bassinger; Dr. & Mrs. Donald Kinley; Robert R. Higgins; LaCortina, Inc.; Karen M. Roy; Wilma E. Frey; Robert & Claire Trask; Elliotte & Polly Haynes; Mr. & Mrs. Paul N. Olson; John Bryan; Priscilla Schlosser; Roger & Phyllis Pierce; David Bruce; Hazel J. Anderson; Mr. & Mrs. George Sappio; Mr. & Mrs. Gerard C. Shrewsbury; Robert Ross; Daniel J. Barberis; C. D. Brakely, Sr.; Kenneth Southworth; Robert D. Yoder; Anthony P. Pettillo; Fred H. Taylor; Mr. & Mrs. Bruce Brown; M. Pauline Rowe; Esther Hessler; James F. McKernan; William Lenahan; Lyn Kinney; Constance E. Stone; Sylvia Lazarnick & Tim Beaman; Cassie H. Sweet; David Scheuer; Gus & Jane Root; Paul Jobin; Peter Morris; Raymond Pomfre-Stewart; Susan Johnson; Mark Wellms, M.D.; Beatrice Batchelder; Joel J. Lamere; Frederick N. Anderson, Jr.; Mrs. Cornelius H. Smith; Janet M. Jackson; Didi Fitzhugh; Robert T. Johnson; Robert A. Miller, Jr.; Walter S. Stikeman; Ernest & August McClain; Jack C. Jennings; Dorothy F. Stanley; Joanne Sarault; Shea Agency, Inc.; Louise H. Jones; Donald Bryan; Mrs. Mildred Lyons; Gordon Gurney; Mrs. Louise S. Nevins; Christopher Pierson; Ms. Patricia Burley; Ms. Ruth R. Adams; Edwin A. Pattison; Shirley P. Clark; Rex C. Doane; United Farm Agency c/o Robert Myhrum; Mrs. William E. Herrlich; Doug R. Elliott; Janet P. MacLeod; Paula & Ed Kirchhoff; Gus, Mary, Ai and Effie Elfer; Norma Skjold; Mitchell W. Kihn; K. Martin Simon; Mr. & Mrs. Donald Grady; Polly Hamilton; Carol & Peter Vandertuin; Oliver A. Vietor; Naomi LaPorte; Stephen J. Green; Richard L. Wooten; Eric & Betty LaWhite; Mrs. Gwendolyn C. Davies; Dr. Thomas G. Howrigan; Mrs. William S. Preston, Sr.; Gene Grinnell; Dana Bergh; Mary L. McGuire; Sylvia Walker; Ellsworth Bunker; Liza Eddy; Mrs. John Higginson; Mr. & Mrs. Clarence Willey; James & Deb Cooke; Peter Keelty; Jean Pierre Lariviere; Frank & Margaret Cloudman; Kendall Wild; Mrs. C.W. LaClair; John S. Warren; Mrs. Harold Bashaw; Dr. Mark Adair; Mrs. George A. Wood; Mae H. Bader; Sonny P. Weiner; Dennis & Susan Kalma; Judson S. Lyon; Michael J. Brown; Pamela E. Johnson; Anita Bower; Mr. & Mrs. David B. Wheeler; Lewis E. Smith; Bruce Cullen; Mrs. Doris C. Commings; Betty E. Stone; Albert Healy; Marion Grover; Rollin Amsden; Jonathan B. Whitehead; Mr. & Mrs. Terry Bachman; Mrs. Karleene M. Lamson; Mrs. Vernon B. Hutton; John Bates; George Coy; Robert Mittenbuhler; Jan Lewandoski; Llama Lettow; Frances W. O'Neill; Jan Hilborn; David Brandau & Lynne Hall; Charles Leighton; Universal Pathways; Knox Cummin; Charles Benton; Bryan J. Lynch; Mary Ellen O'Donnell; Mr. & Mrs. R.S. Corley; James Tober; Lee & Sue Gardner; Jan Wright; Chele Lavalla; Jacob Blum; Steven Rodewald; Raymond Jacoby; Gretchen Sakofsky; Richard W. Jerome; Robert C. Morris; Margaret G. Ottum; Jack Long; Reg Young; Grace Reynolds; J. Arthur Lavigne; Charles Thompson & Sarah Boy; John A. Wrazen; Ann Maslack; John W. Merrill; Duncan & Ann Campbell; Ms. Elizabeth Clapp; Mrs. Anita Flanagan; Judith K. Bowden; Lori Stratton; Jerome R. Morgan; George & Ann Clay; Paul A. Kingsbury; Ben Winship; Morris Earle; Joyce Bordeaux; Dicken Lary; Milne Travel Agency, Inc.; Steve Craddock; Marshall Webb; Anne L. Cook; Roy & Wendy Haupt and Carroll M. Oelsner.

SEWARD WEBER COMES HOME TO VNRC

Seward Weber, Executive Director of the Vermont Natural Resources Council since 1972, is back at the office after a nine-month leave of absence. Seward took a leave to accept a Richard Mellon King Fellowship for graduate studies at the Yale School of Forestry and Environmental Studies. His course work was complicated by a confrontation last October between a truck and a bicycle on the streets of New Haven. After a long stint in the hospital, Seward is on the mend and getting around nicely.

Seward has resumed many of his former duties as Executive Director, with overall responsibility for policy and programs. Don Hooper, who has been Acting Executive Director in Seward's absence, now holds the new position of Operations Director, and will continue to manage the day-to-day activities of the Council.

DAVE MARVIN IS "TREE FARMER OF THE YEAR"

Dave and Lucy Marvin of Johnson, Vermont, are up for national recognition for sound forest management as the winners of both State and New England Region competition for Outstanding Tree Farm of 1983. Dave Marvin, a former Chairman of the Board of Directors of the Vermont Natural Resources Council, received his award from the Vermont Tree Farm Committee at a banquet in Morrisville on June 4th.

The Marvins' 600-acre "Butternut Hill Farm" provides a livelihood for a family of four, producing each year 3500 gallons of maple syrup, 1500 - 2000 2000 Christmas trees, 25,000 - 50,000 board-feet of sawlog material, 60 cords of spruce/fir pulpwood and 150 cords of fuelwood. The Marvin Family's silvicultural practices are designed to assure long-term production. Dave estimates that parts of his bush have been sugared for over 125 years.

The Tree Farm System, sponsored by the American Forest Institute, recognizes and promotes scientific management of privately-owned woodlands. For more information, write Raymond T. Foulds, Jr., Vermont Tree Farm Committee, 393 South Prospect Street, Burlington, Vermont 05401.



IT'S HARD WORK

But anything worth doing is worth doing well. VNRC prides itself on doing it right the first time. We're not always the first to respond, but when we do, it's because we've given a lot of thought to the consequences of our actions. And you can count on us to tough it out until the job is done. That's why we're still here, 20 years later, representing the needs and concerns of Vermonters who are committed to the conservation and wise use of our natural resources.

If you haven't joined VNRC, we hope you'll do so during this, the beginning of our 20th year of service to the environment and the state of Vermont. If you're already a member, please take a moment to jot down the names and addresses of friends and associates who share your concerns.

Name _____

Address _____ Zip _____

May we use your name in contacting these prospective members? ☐ Yes ☐ No

Name _____

A Walk on the Wild Side

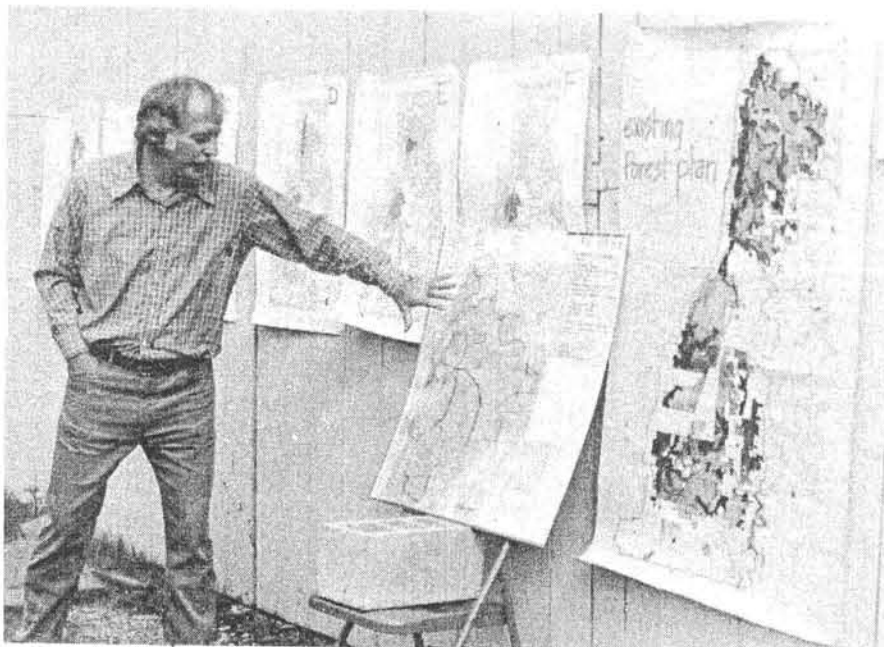
VNRC "Big Branch" Tour

In mid-May, before the leaves and before the black flies, VNRC sponsored tours of two of the areas in the Green Mountain National Forest that have been proposed for Congressional wilderness designation. Steve Harper and Wolf Schumann of the U.S. Forest Service led the tour of the so-called "Big Branch" area, which includes the Griffith Lake, Devil's Den and Wilder Mountain RARE II areas and totals nearly 33,000 acres (see map).

The Big Branch tour included such noted conservationists as Dick Andrews and Peter Smith of the Vermont Wilderness Association, Warner and Edie Shedd from the National Wildlife Federation, Roger Sternberg from the Appalachian Trail Conference, Don Hooper, VNRC Operations Director, and three hicks from the sticks -- John Wires, Greg Paus and me -- who tagged along just to see for our-

selves that everything south of Rutland hasn't been carved up into 10.1-acre lots.

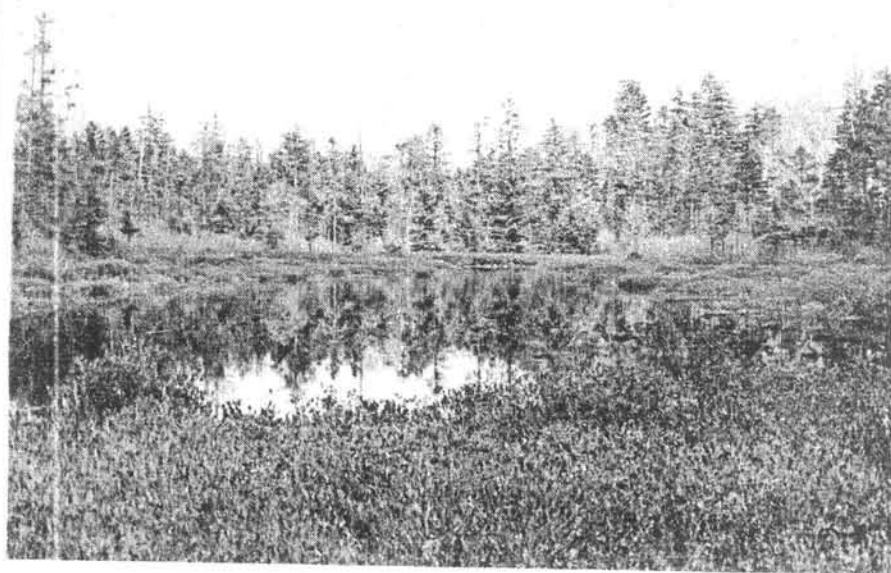
Steve Harper, below, showed us the lay of the land with a series of maps and transparencies, which illustrated his point that Big Branch is "the area with the most potential problems to sort out." It has the most snowmobile trails, some of the most important natural areas and some



significant deer wintering areas.

We piled into big green government vans to wind our way up USFS 10 along the Big Branch River, which flows through a Western-scale gorge strewn with boulders as big as a Volkswagen. We then made several forays on foot into the high and wild plateau that is the proposed Big Branch Wilderness Area.

Wildlife and signs of their presence were everywhere. A tree frog, at left, does a convin-



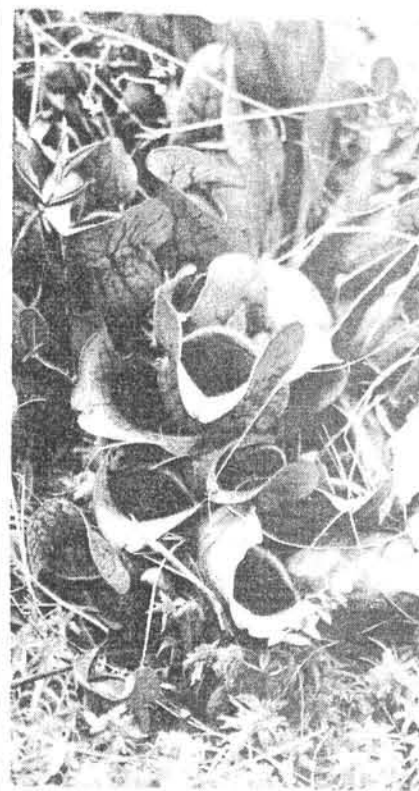
cing demonstration of the art of camouflage.

The highlight of the tour had to be tiptoeing onto the thick mat of a magnificent quaking bog (above) amid hundreds of red-veined pitcher plants (at right).

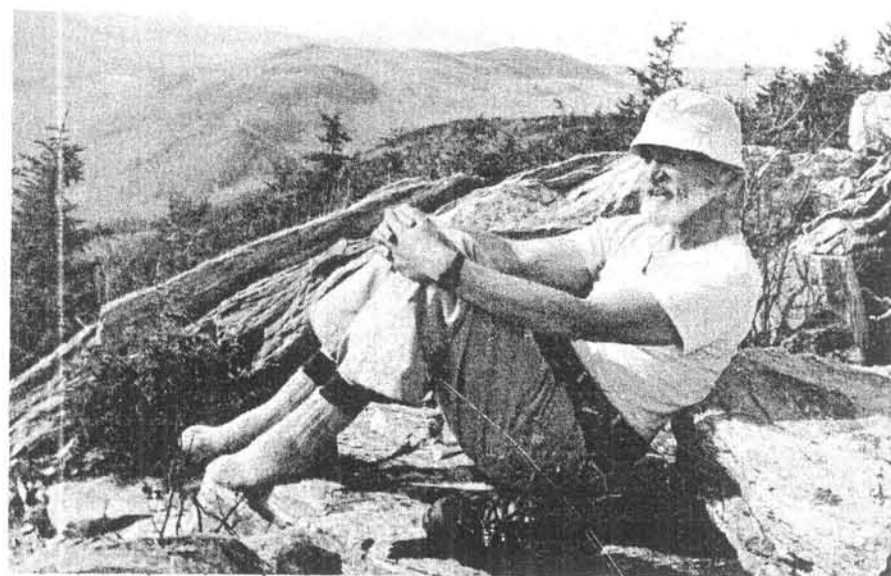
Most of the crew turned back toward evening, but John, Greg and I continued south, our backpacks on our backs, and spent the night next to a roaring waterfall.

We had the place pretty much to ourselves. It was clear that we were in nature's domain. In fact, it was a bit of a shock when we emerged from the woods the following day, and gazed down on the well-groomed landscape of the Route 7 corridor.

We came out satisfied both that the Forest Service's management of this land embodies the principles of "kindly use," and that the proposed Big Branch Wilderness Area deserves permanent protection from development. Working out this equation poses a difficult challenge for public land



managers, Vermont's Congressional delegation, and all of the people who use and enjoy Vermont's Green Mountain National Forest.



VNRC

**Vermont
Environmental
Report**

Vermont Natural Resources Council
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Montpelier, Vermont 05602

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May/June 1983

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