Vermont Environmental Report

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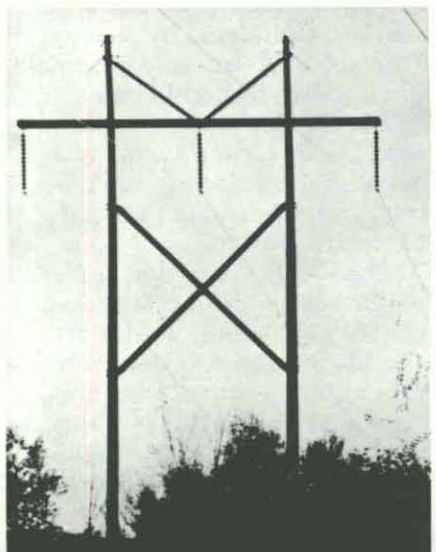
Extra High Voltage Transmission



Quebec Power, Vermont Land, New York City Lights

Deborah DeGraff

John Dyson, Chairman of the Power Authority for the State of New York (PASNY), stated recently that Vermont and other New England states "should become part of the solution to the energy crisis by providing a [powerline] corridor between Quebec and the New York City area."

Dyson's statement, the fact that New York must reduce its oil imports, and the enormous amount of power to be generated from the Hydro Quebec project in Canada all point to "extra high voltage" transmission lines — 345,000 volts or more — running down a powerline corridor in New England.

In 1978 PASNY placed the largest EHV line in the east, 765,000 volts (765kV), along the western edge of the Adirondack Park. This powerline was not popular in the rural communities of upstate New York. Citizens protested that the line was unnecessary, a probable danger to public health and safety, would degrade farmland along its 155 mile route, and the process by which the line had been approved was totally beyond the public control.

According to Richard Saudek, Chairman of the Vermont Public Service Board (PSB), Dyson's plan considers a powerline smaller than the 765kV in New York. A 500kV direct current line or a 345kV double circuit line have also been mentioned.

Dyson foresees energy benefits for those states that are willing to be "part of the solution." For Vermont it would mean the assurance of continued ample, inexpensive electricity in the coming decades.

Presently Vermont purchases 25% of its electric power from PASNY, at one-half the cost of the cheapest electricity generated within the state. In early January, the contracts providing this power were renewed for another five and one-half years. In 1985 the PASNY contracts must be renegotiated.

Given the possibility that an EHV line might be built in Vermont, Saudek poses this question: "Should the state accept the presence of an extra high voltage transmission line in order to secure electricity to meet Vermont's needs over the coming decades?"

Embedded within this question are many concerns.

Questions Raised

In late September of 1979, the Southern Landowners Alliance of Minnesota (SLAM) won their court battle over a 345kV line by arguing that they were entitled to a better opportunity to present their case against the line. In Kansas, over 100 landowners in the path of a 345kV line are preparing testimony for a public hearing. In Ohio, West Virginia, and New York, the

Electric Power Sources for Vermont

	% of Total	Cost in Mils Per Kilo-Watt Hour
Hydro*	37%	.9
Nuclear	35	2.1
Oil	16	3.5 to 4
Coal	10	2.3

**25% of this is PASNY power*

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Acid Rain and Washington Fallout

Anne Winchester

Measuring the pH Value

Acidity or alkalinity is measured by a pH value. The pH scale ranges from 0 to 14. A value of pH 1.0 is very acid (battery acid), pH 7.0 is neutral (distilled water), and pH 13.0 is very alkaline (lye). A change of one point in the pH value is equal to a10 fold change in acidity or alkalinity.

Precipitation is considered acid if it falls below pH 5.6 the normal equilibrium value of carbon dioxide and water.

A few years ago, the landscape surrounding Sudbury, Ontario, Canada, looked like the surface of the moon. Immense copper and nickel smelters rising from a bleak and barren plain filled the sky with a gray haze. One could drive for miles in a treeless land, through rolling hills of black dirt and rock. Even the nearby lakes and streams—once prized for their sport fishing—were almost devoid of life.

Today, some vegetation has returned to Sudbury, making the landscape appear less lunar. The city and the surrounding countryside look a bit better because International Nickel built quarter mile high smokestacks (the tallest in the world) which disperse the sulfur and nitric oxide and other pollutants into the atmosphere.

Smelters, electric generating plants, petroleum refineries, and other fossil fuel burning industries in both Canada and the United States have built tall smokestacks like Sudbury's in order to comply with ambient air quality standards. In the United States industries could build these stacks because the Environmental Protection Agency's (EPA) air pollution measurements are based on ground level concentrations. Gus Speth, Chairman of the Council on Environmental Quality, described the approach this way, "They operated on the mistaken belief that the solution was to raise the height of their smokestacks to the point where atmospheric currents would carry the pollution away from its source—and away from the

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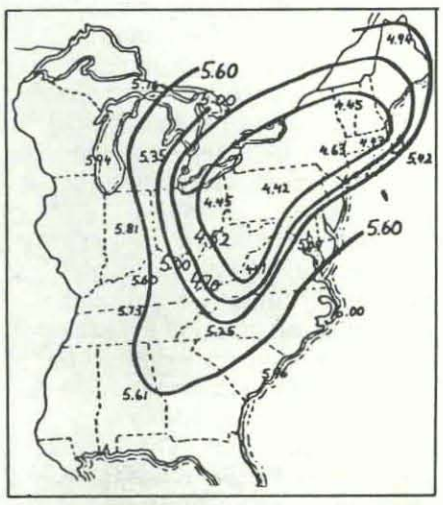
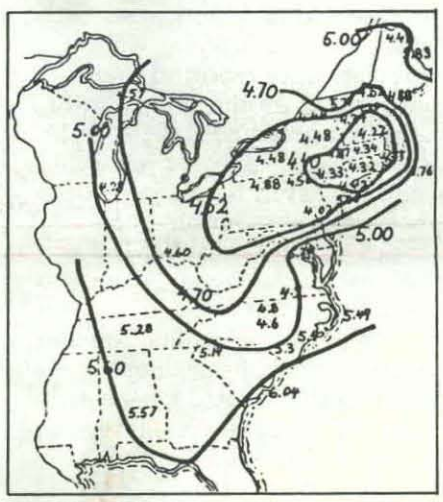
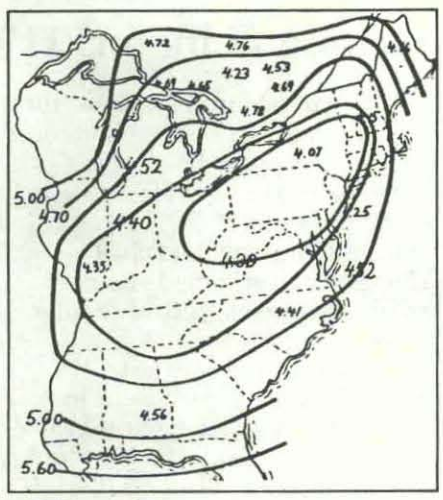


1955 - 1956



1965 - 1966



1972 - 1973

A dramatic seventeen-year increase in the acidity of rainfall over the Northeast is shown in these three maps. The top two maps give the distribution of predicted pH between 1955 and 1966, while the bottom map shows the measured distribution during 1972 and 1973.

EHV Transmission

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construction of EHV lines are being met with resistance as serious environmental, public health and safety, and land use questions are raised.

One of the problems with EHV lines is noise. Especially in foul weather the loud crackling sound coming from the line can disturb the sleep of residents living nearby. Studies conducted by the Federal Bureau of Standards show the noise to be more annoying than other environmental sounds of equal decibel level. EHV lines also interfere with AM-radio and television reception.

Ozone produced by these high powered lines, although apparently minute, is thought to be a cause of some health problems being experienced by farmers in Minnesota who live and work near an 800kV direct current line. The farmers have noticed an increase in such things as: respiratory ailments, nose bleeds, headaches, rashes, and fatigue. Livestock seem to be affected as well. Farmers have reported their cows' milk production is lower and that breeding is difficult in some cases. No direct relationship, however, has been made between these problems and ozone produced by EHV lines because of the lack of scientific research in this area.

If a person or animal touches a conductive object, like a tractor, that is sitting beneath an EHV line, they could receive an electric shock. The shock would vary in strength from being annoying to being fatal. It is estimated that a large conductive object immediately below an EHV line will become fully charged in less than a minute. The danger of electric shock is such that the Public Service Commission in New York prohibits the discharging of children from school buses which stop under the 765kV line.

In recent years, scientists have found some evidence that prolonged exposure to strong electromagnetic fields, such as those created by EHV lines, has an adverse effect on biological systems. These studies indicate that in humans, cardiovascular difficulties can occur. More stress is placed on the body. Blood chemistry is altered. Growth and development are inhibited, and anxiety and irritability increase.

Charges and counter-charges aimed at scientists by scientists on both sides of this issue. Some researchers claim that experiments to date have either been improperly carried out or the findings are inconclusive. While others claim that those attempting to discredit the research that indicates EHV lines pose a threat to public health and safety are paid by the utilities and are, therefore, biased.

To minimize the environmental impact of all transmission lines, siting guidelines have been set by the Department of the Interior, the Department of Agriculture, and the Federal Power Commission. Transmission routes, they say, should avoid scenic, historic, and recreational areas, prime farm and timber lands, population centers, and areas of valuable natural resources. Where, then, do we put them? The power companies, naturally want the cheapest route, and farmlands are flat, relatively bare and offer easy access for construction vehicles. Since it is cheaper to keep the lines as straight as possible, the power companies will often buy an easement through a farm rather than move the towers to the edge of a property.

In Vermont the Champlain Valley is a likely site for the construction of an EHV transmission line to New York. Small 115kV lines on wooden polls already run down the Valley. If Vermont gets an EHV line, one may ask, will it follow the existing corridor? Will this corridor need to be widened? If so by how much? How much disruption of farming operations or other natural environments might be caused by the construction of the line and the maintenance of right-of-ways and access roads?

The design of an EHV line becomes paramount when discussing public health and safety issues. For example, raising and strengthening the towers could allow thicker cables to be used and an increase in the number of cables per bundle. Both of these features would help alleviate some of the side effects of EHV lines - AM radio and TV interference, noise, shocks, and harm to biological life systems.

The siting of the towers is another important factor. Careful siting can minimize the aesthetic effects on landscapes and the disruption to farmland and natural areas.

Designing for safety, as opposed to economy, however, is not always a top priority among utilities. After a protest meeting in Michigan concerning a 765kV line, Detroit Edison, the utility involved, announced a change in the design of the line to improve its safety. "It is apparent," writes physicist and author, Louise B. Young, "that the change was made in response to the questions raised at the protest. It is encouraging that public exposure of these issues can bring about design changes."

Public Response

"If and when the proposal for a transmission route becomes clear, we anticipate full public consideration of the detriments and benefits of that proposal." says Richard Saudek. The PSB, according to Saudek, plans to hold regional public meetings and briefing sessions, conducted by state officials, to discuss any proposal which might be considered.

The Public Service Board, with the Governor's approval, has absolute authority to contract for out-of-state purchases of electric power.

There is no provision for public review of any proposed contract. Once the contract is made, however, review of it falls under Section 248 of the PS code. Under this law the Board is required to hold public meetings in any county where the transmission line will be built.

Despite the term "public" hearing, however, only those citizens who apply and are given "formal party status" are allowed to give testimony or raise questions during the proceedings.

There is an uneasy tension between the knowledge that Vermont could lose up to 25% of its PASNY-supplied electric power and the environmental and public health and safety problems inherent in EHV lines. These issues need to be weighed carefully in the coming months. And as it is the public who will be asked to assume the risks, it must be the public who demands the facts.

Deborah DeGraff is pursuing a National Science Foundation Grant, along with other funding, in order to continue the education and research efforts on EHV lines.

Getting a Line on EHV's?

The size of the towers and the size and number of the conductor cables, which can be strung between towers, enable extra high voltage lines (EHV's) to transmit large quantities of electricity over long distances more economically than smaller lines.

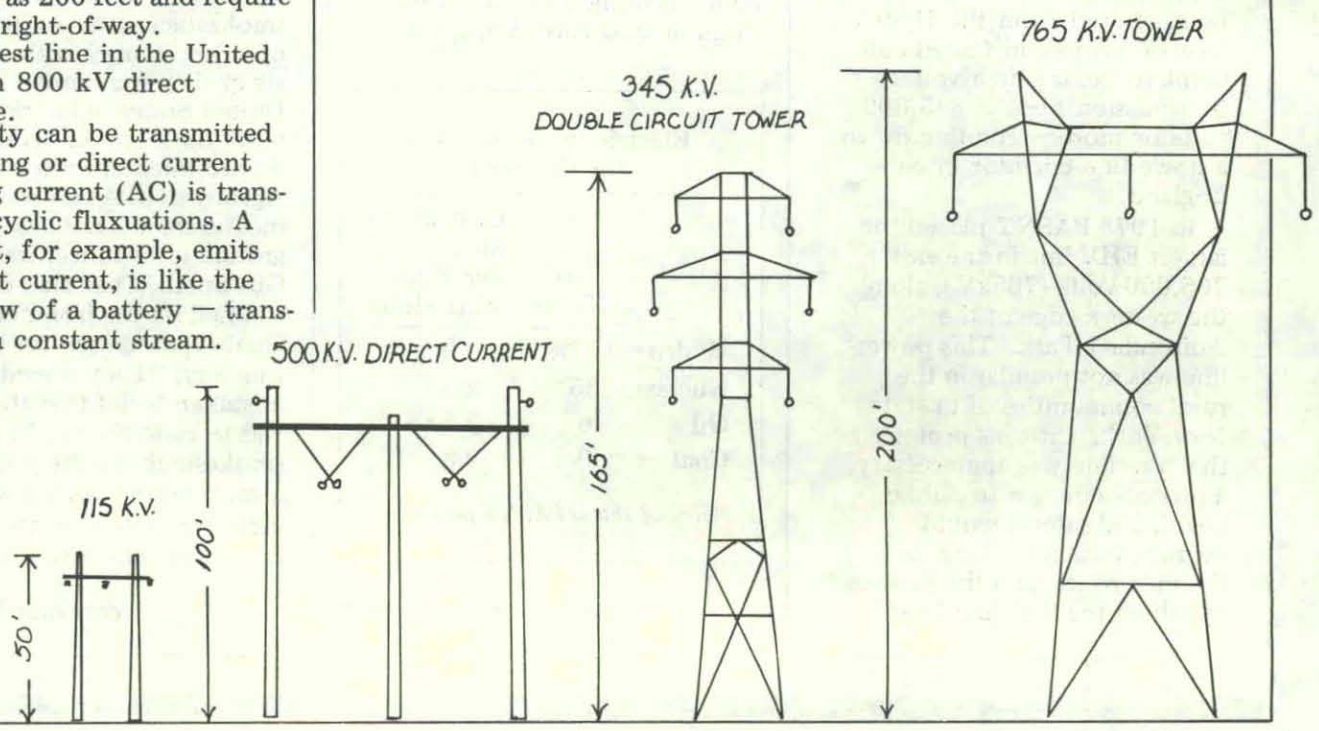
A 345kV, the smallest EHV line, has already been built in Vermont. A single circuit 345kV carries power from the Vermont Yankee Nuclear Plant to the Coolidge sub-station near Ludlow. The 345kV line can be a single or double circuit. A double circuit, the type being considered for Vermont, carries twice as much power as a single circuit 345kV, and therefore, requires twice as many conductor cables and larger towers to support the added weight. The double circuit towers are 165 feet high and require at least a 150 foot wide right-of-way.

A 500 kV line is the next largest EHV line. The height of a 500kV tower is approximately 100 feet and the land requires a 170 foot right-of-way. The 500kV lines are used mostly in the west and the mid-west.

A larger EHV line is the 765kV which can carry approximately four times as much as one single circuit 345kV line. The towers rise as high as 200 feet and require a 350 foot right-of-way.

The largest line in the United States is an 800 kV direct current line.

Electricity can be transmitted as alternating or direct current Alternating current (AC) is transmitted in cyclic fluxuations. A wall socket, for example, emits AC. Direct current, is like the current flow of a battery — transmitted in a constant stream.



Acid Rain

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instruments used to measure ambient air quality in that area."

Unfortunately, this out-of-sight, out-of-mind solution to air pollution is not working. The pollution released from the smokestacks does not stay up in the air, nor does it disappear into the ether. Sulfur and nitrous oxides mix with atmospheric water to become sulfuric and nitric acid, and, along with heavy metals such as copper, lead, and zinc, are carried hundreds of miles by prevailing winds, eventually falling to earth as either dry deposits or as acid rain or snow.

The phenomenon of acid rain was first brought to the world's attention in the 1950s when the International Meteorological Institute in Stockholm began measuring the acidity of rain throughout Europe. The Institute found that pollution-laden masses of air from England, France, Germany, Eastern Europe, and even North America were converging on Scandinavian countries. A study from the Organization for Economic Cooperation and Development reports that Austria, Finland, Norway, Sweden, and Switzerland are involuntarily "importing" more than twice as much sulfurous air as they are "exporting." In Europe, acid precipitation is thought to be the cause of, among other things, the decline of salmon in Norway, the damage to forests in Sweden, and the erosion of ancient statues in Greece.

Another Silent Spring?

In North America the prevailing winds move eastward. These winds carry pollution from mid-western industries in Canada and the U.S. to north-eastern forests, farmlands, lakes, and streams.

The damaging effects of acid rain on aquatic ecosystems is undisputed. Among the evidence of the deleterious consequences of high levels of acid on fish are the findings of a 1975 study conducted by the State of New York. Of 214 high elevation lakes in the Adirondack Mountains, 51% had a pH value of below 5.0; 90% of the lakes were devoid of fish. Declining fish productivity, aluminum poisoning, and the disruption of the natural balance between plant and animal life in aquatic ecosystems are attributed to the rise of acidity in lakes and streams throughout the northeast.

The relationship of increased acidity and damage to the complex terrestrial ecosystem, however, is not so well understood. But the evidence is mounting. For example, studies from two Ohio State University scientists show that acid rain erodes away the waxy protective layer covering the surface of leaves on some species of plants. Without this protection many plants become susceptible to insects and disease. Other experiments have shown that acid conditions disrupt the photosynthetic process in plants. There is also evidence that a lowering of the pH value inhibits the breakdown of organic matter on the forest floor which reduces the nutrients needed for vigorous plant growth and seed germination. An extensive examination by EPA of virtually every major field crop in the U.S. will determine the sensitivity of the crops to simulated acid rain conditions. (The findings of this study are scheduled to be released this spring.)

More direct field studies, however, are still needed for scientists to say unequivocally that acid rain is adversely affecting forests and crops. But studies of this nature often take 10 to 15 years to complete. . . and many people feel we don't have the time to wait. A report from the U.S.-Canadian Research Consultant Group expresses this concern: "To wait long enough to obtain, say, a clearly demonstrated effect of a 15 to 20% loss in forest productivity could mean that a stage of site degradation has been reached that would be impossible to reverse."

Red Spruce and Camel's Hump

Fortunately, Dr. Hubert Vogelmann, chairman of the Botany Department at the University of Vermont, found recently that he has field data that could greatly aid in the research on acid rain. "This is a unique situation," commented Dr. Richard Klein, a botanist at UVM and a member of the research team, "because we have a backlog of research stretching over the last 20 years. I doubt that this study could be duplicated today anywhere else in the world."

Fifteen years ago a graduate student, Tom Siccama, now a professor at Yale University, collected vegetation measurements on Camel's Hump and other Vermont mountains. These high elevation environments have severe weather conditions, thin soils, and heavy precipitation, and are likely to show the effects of any additional stress—like an increase in air pollution. Vogelmann realized that if the 1965 measurements were re-taken, he could determine which, if any, of the plant populations have increased or decreased over the last 15 years.

Last summer, under the direction of Drs. Vogelman and Siccama, all the Camel's Hump data were re-collected along with the level of acid in rain and fog.

Although the data have not yet been fully analyzed, the researchers have found the following: (1) the acidity of the rainfall for 1979 ranged from pH 3 to 4, (2) there is an increase in heavy metals in the soils on Camel's Hump, and (3) the red spruce have declined by 50% since 1965.

One hypothesis is that there may be a relationship between acid rain, heavy metals, and the decline of the red spruce. This is only a hypothesis however. Both Klein and Vogelmann emphasized the complexity of the environmental factors with which they are dealing and stress that without more hard experimental data no conclusions can be made.

Dr. Klein is now conducting experiments—simulating field conditions in the laboratory—that will test the hypothesis. "I hope, " says Klein, "that this is one more drop in what is to be a great, big swimming pool of information." The scientists believe it will be at least two years before the study will be completed.

Fallout in Washington

In November of 1979 an acid rain conference was held in Toronto, Canada. American and Canadian officials were eloquent, unequivocal, and straightforward in their pleas for coping with the acid rain problem. Out of this conference came a strongly worded resolution: 1) the international treaty now being negotiated by the United States and Canada must establish goals for reducing transboundary and regional air pollution levels that contribute to acid rain; 2) each country must adopt a central strategy to reduce sulfur and nitrogen oxide loads to less than 50% of present levels within 10 years; and 3) tall stacks or techniques for dispersing emissions are to be outlawed and emissions are to be reduced.

Unfortunately, the situation becomes muddier when we look at actions being taken within the United States. Phyllis Austin, a reporter for the **Maine Times** observes that, "Even in the best of times air pollution is a troublesome political issue, but the worsening energy situation is putting added pressure on lawmakers and bureaucrats to ease up rather than tighten air pollution laws."

While officials at the Environmental Protection Agency acknowledge that acid rain is a problem, and are saying they will push for a stronger version of the Clean Air Act in 1981 when it comes up for reconsideration by Congress, EPA is also allowing 149 polluters to raise their smokestacks and is, in some cases, lowering air emission standards. For example, in West Virginia last year EPA relaxed the emission standards for two large power plants, Harrison and Mitchell. These two plants contribute 1% of the total sulfur emissions in the country.

According to Lyda Wegman, an attorney for EPA, much of the problem lies with how the present law is interpreted. She says, "EPA enforces the Clean Air Act on a case by case, source-by-source basis, sometimes we can get as broad as statewide, but the acid rain problem is a regional one." Furthermore, she explained, "we have no evidence of who is causing the problem; noone knows which plant in the Ohio River Valley is responsible for the air pollution in other states."

Critics, such as Robert Rauch of the Environmental Defense Fund, who disagree with EPA's actions, acknowledge the present law's weakness, but claim that there is still no reason, especially given the critical circumstances, why EPA should reduce the current standards or allow any more tall smokestacks.

As the international and national drama is played out, Vermont and other New England and mid-Atlantic states are joining forces to combat their acid rain problems. Environmental agency representatives from northeastern states will converge on Washington in late January to put pressure on EPA. Commissioner Robert Flacke of New York's Department of Environmental Conservation is pushing to accomplish at least three things at the Washington meeting: 1) make sure EPA understands the severity of the problem and its cause: the inequity of enforcement of the Clean Air Act; 2) provide information as to the environmental and economic effects this inequity is causing; and 3) create a clear understanding of the alternatives which could provide a solution, and relief, to the states receiving acid rain.

In Vermont the extent to which the environment is being affected by acid rain is not yet known. Brendan Whittaker, Secretary for the Agency of Environmental Conservation, however, is not waiting for "100% proof". He has set in motion intensive monitoring projects throughout the state and has created a statewide task force to coordinate acid rain research. Whittaker sees two things happening at once—the gathering of solid scientific information and the fight to keep EPA from reducing the air quality standards.

John Fraser, the Canadian Minister of the Environment, has observed, "There are dangers at either end of the spectrum - environmental dangers in the case of understatement and economic dangers in the case of exaggeration. But obviously we cannot wait for 100% certainty. We have to be prepared to act on what might be termed the best available, educated conclusions being acquired at an accelerating rate."

Ann Winchester worked with the research team at UVM in the field and laboratory.

Septic System Management: A Search for Sewage Solutions

Mary Shattuck Hooper

Shocking a septic system with large quantities of water, using it for toxic waste disposal, or just a very rainy Vermont spring can temporarily, or permanently, put a septic system out of service. For the homeowner repair or replacement of a septic system may mean spending hundreds, possibly thousands, of dollars. And even then, careful care and maintenance of the new system will not guarantee it will work properly. Tales of leachfields installed in the one spot in the yard that floods every year, or of sewage surfacing in the yard because clay soils prevent it from seeping away, are common. Unless a septic system is installed by a knowledgeable expert, the homeowner may have to replace the septic system every few years.

A not-so commonly told story is in the town health officer's files. Viral diseases, gastrointestinal aliments, and indeterminate illnesses caused by wells contaminated by septic system are not an unusual occurrence.

The failure of septic systems is a problem for towns as well as individual homeowners. For example, the town of Pawlet may be forced to build an expensive centralized treatment system because houses are on land that is not suitable for septic systems. The town of Sherburne, built on steep slopes and with shallow soils, is under a building curtailment as a result of health hazards created by a high incidence of septic system failures and a lack of alternative sites for installing septic systems.

Malfunctioning septic systems, however, do not hinder all forms of growth. Improperly functioning septic systems on the shores of Lake Fairlee and Lake Bomoseen have probably accelerated the natural process of lake eutrophication. Wastes from the septic systems act as fertilizer for what are commonly called "nuisance aquatic" plants. These lake weeds, like eurasian milfoil, spread very quickly, choking out other forms of aquatic life. Boating on weed infested lakes is often impossible because of plants tangling in propellar blades.

Older lake or bay resort communities have become popular residential areas. The septic systems of camps and cottages, which were designed for intermittent use, are failing because the dwellings have been converted to year round use. When these systems fail they can pollute the nearby lakes and bays. During the summer season, health authorities live in fear of epidemics caused by people using the water for recreation.

Despite the problems that Vermont towns and citizens are having with failing "on-site wastewater disposal systems"—the generic term for septic systems and other methods of disposing wastewater on the site where it is produced—Vermont does not have a comprehensive state program for on-site wastewater disposal management. Instead three groups loosely share the responsibility for overseeing proper on-site disposal.

The State Health Department currently plays the lead roll in regulating septic systems. When a health hazard exists because of a malfunctioning septic system, the Department has the statutory authority to intervene and remedy the situation. This could mean requiring a family to move out of their home, but usually only involves the health officer recommending that the septic system is repaired or replaced. State law also requires the Health Department to set minimum standards for the design and installation of septic systems and that health ordinances of any town be at least as strict as the state standards. The state health regulations require that conventional septic systems not be built in slowly permeable soil, such as clay or silt, and that a minimum distance between the system's leachfield and the water table be maintained. Towns that have health ordinances must adhere to these standards. Towns that have predominately clayey soils or high water tables, however, are reluctant to adopt health ordinances because the enforcement of state standards could result in a defacto ban on septic system construction and, thus, on new housing.

The second agency overseeing on-site wastewater disposal is the Protection Division of the Agency of Environmental Conservation (AEC). The Protection Division is charged, with, among other things, ensuring septic systems do not cause water pollution. Because of limited personnel the Division has its hands full with just issuing subdivision permits and monitoring septic system construction in developments. As a result the AEC generally allows the Department of Health to take a lead in monitoring individual on-site systems through the town health officers.

The third group is the Vermont Association of Conservation Districts (VACD) On-Site Program. The VACD On-Site Program works on the "ounce of prevention" theory, and unlike the Health Department and the AEC, aids towns and individuals before a problem exists. It helps towns to adopt health ordinances which will meet state requirements, but will not be restrictive, and monitors the design, construction, and installation of septic systems. The On-Site Program serves approximately 20% of the state and has been responsible for sharply curtailing the incidence of septic system failure in many areas.

When Health Department standards for septic system design and installation are followed, approximately 10% of the systems will fail. When the VACD program supervises design and installation less than 1% of the systems are estimated to fail. However, because of a lack of resources and management, the overall rate of septic system failure remains high. An estimated 50% of septic systems not installed in accordance with the recommended Health Department standards may fail.

In 1972, the federal government recognized that this sort of hit-or-miss water pollution control program was not adequately protecting our water resources. Through the Federal Water Pollution Control Act, now known as the Clean Water Act, each state is required to draw up a plan to control water pollution. The states must analyze what is causing water pollution—logging practices, agricultural run-off, septic systems, urban run—off, etc.—and prepare a plan for both abating pollution and preventing or limiting future water pollution.

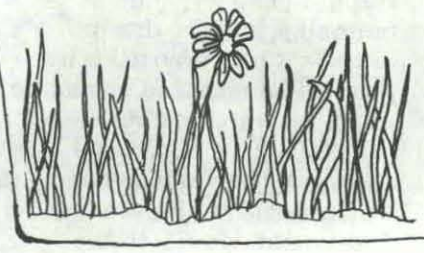
In 1977 the planning process began in Vermont. Several studies were done in the area of septic system management. After first pinpointing malfunctioning septic systems as a significant source of water pollution, the major causes of septic system failure were assessed and ways to control or eliminate the causes investigated. We are now at the end of this study period and it has become clear that many of the tools for controlling water pollution and health hazards created by failing septic systems already exist in Vermont. In some cases, they simply need to be strengthened or expanded, and in other instances the responsible agency's role needs to be clarified.

In November 1979 the AEC Planning staff presented a plan to the people of Vermont which was supposed to address the on-site wastewater management needs of the state. Instead of being a careful analysis of the management needs of the state, the plan appeared to be a hastily assembled document designed merely to meet federal regulations. Important recommendations of consultants were ignored, the vital roles of the Health Department and the On-Site Program were diminished, and the immediate needs of private individuals and towns for aid and guidance in managing septic systems were not addressed. VNRC, the VACD, several health officers, and private citizens registered vigorous complaints with the Agency at hearings on the plan and in private sessions.

The Agency staff was responsive to the concerns of the public and is in the process of rewriting the plan. The final plan, or strategy, as the AEC calls it, defines the roles and responsibilities of the Health Department, the Protection Division, and the VACD.

Instead of a perfunctory document which pays lip service to the needs of Vermonters, we can now expect a plan which stresses the need for minimizing public health hazards, reducing surface and groundwater pollution, and avoiding expensive and unnecessary sewer and centralized wastewater treatment plant construction. In working towards these goals the plan sets forth methods for ensuring that on-site wastewater disposal systems are properly designed, sited, constructed, installed, operated, and maintained. It calls for safe-guards to allow these systems to be an effective long-term method of providing for adequate on-site treatment of wastewater. And finally, it allows for individuals and towns to have maximum freedom and flexibility in solving their own wastewater disposal problems.

Once the plan is approved, our next step is to put it into action.

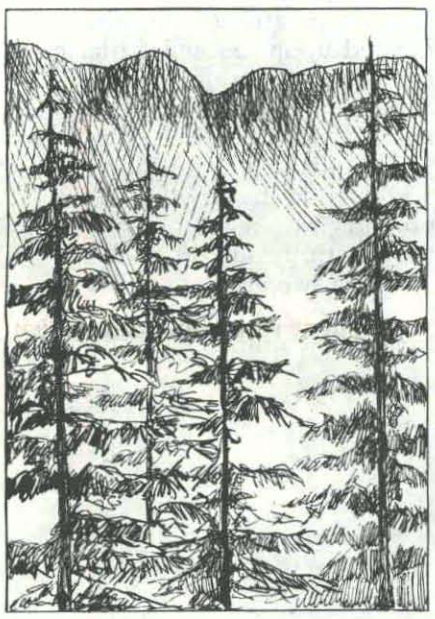


Mary Hooper is the Director of VNRC's Sewage Planning Project. For more information concerning on-site waste disposal planning and management, please call or write VNRC, 7 Main Street, Montpelier, Vermont 05602.

The Tinmouth Agreement: Land Conservation without Regulation

Darby Bradley

In January of this year, the Ottauquechee Regional Land Trust and the Vermont Agency of Environmental Conservation (AEC) completed an unique agreement for the protection of 1000 acres of land in the town of Tinmouth, Vermont. This event marks the first major protection effort of the Trust, and the first major use of the AEC statutory authority to acquire less-than-fee interest in land for conservation. VNRC and the Rutland Regional Planning Commission also assisted in the negotiations—offering both legal and planning support. The Tinmouth agreement may offer an alternative to regulation and outright public acquisition for conserving our natural resources in Vermont.

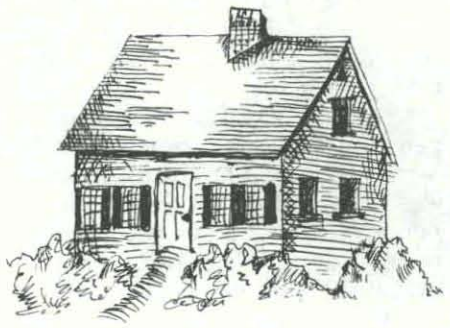


In the 1970s, Robert and Susan Lloyd and five other families bought two large tracts of land in Tinmouth, a small town in southern Vermont. The land had a 250-acre farm, high pastures with spectacular views both east and west, hundreds of acres of forestland, and an untouched natural area of old growth timber near Tinmouth Gulf. The six families used the land for vacations. The farm was rented out to a young couple. The woodlands were put under the management of the New England Forestry Foundation.

Last year, two of the families expressed the desire to sell their share of the land. The Lloyds and the other families did not want to break up the tract, since they had purchased it partly to save the land from a large development scheme. On the other hand, they were not financially able to buy out the other two families. In addition, the couple who was farming wished to buy the farm, but could not afford to pay its full development value. Faced with this dilemma, the Lloyds approached VNRC and the Ottauquechee Trust for help.

The Trust and the Lloyds worked together to draw up a comprehensive land use plan. Once this was accomplished, conservation restrictions were prepared limiting the type and amount of development that could occur on the property. These restrictions vary with the type of land. On the farm, for example, the owner is permitted to engage in a full range of agricultural activities. The natural areas are to be kept "forever wild." Agricultural and forestry operations are permitted on most of the remaining property, provided they are carried out under accepted management practices. Some 10-acre building lots are designated throughout the tract to allow construction of a limited number of new homes. Subdivision and commercial activities, such as mining, are generally restricted.

The next step was to find a proper recipient for the restrictions. The Agency of Environmental Conservation was interested, but concerned about the administrative burden of monitoring and enforcing the restrictions. It was decided that the owners should donate the restrictions to the Agency and the Ottauquechee Regional Land Trust jointly, with the Trust assuming the responsibility for annually monitoring the property.

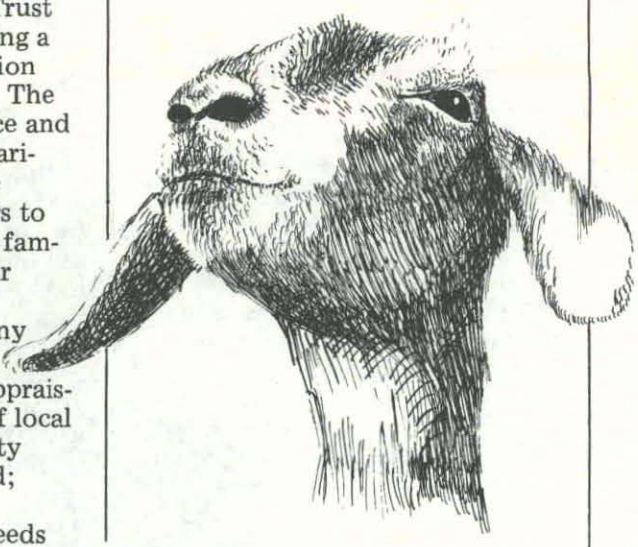


Because the Trust and the Agency are tax-exempt organizations, the value of the conservation restrictions can be deducted by the owners as charitable contributions. The deduction is the difference between the value of the land without restrictions and the value with restrictions. The farm, with the restrictions, was sold to the farming couple at its reduced "use" value. The Trust assisted the couple in securing a Farmers Home Administration loan to make the purchase. The combination of the sale price and the taxes saved from the charitable deduction enabled the Lloyds and the other owners to buy out the interests of the families who wanted to sell their shares.

There were, of course, many other details that had to be attended to: surveys and appraisals were needed; approval of local officials was sought; property tax issues had to be resolved; and the Attorney General's office had to approve the deeds conveying the conservation restrictions to the State. But the complexity of the agreement did not deter the parties. Through the imaginative use of our tax and land use laws, the breakup of a large tract of land was prevented, and the long term protection of the agricultural, forestry, and recreational uses of the Tinmouth land was achieved.

In the process, the Trust and everyone else involved learned some of the practical problems of using conservation restrictions as a protection device. (The Agency reviewed its guidelines for accepting restrictions, and will probably issue new guidelines in 1980.) Other states and organizations like The Nature Conservancy have used conservation restrictions as a tool to protect land for years. With the success of the Tinmouth negotiations, it seems likely that conservation restrictions may gain greater acceptance and use in Vermont.

Darby Bradley, staff attorney, worked with the Lloyds and the Ottauquechee Trust during the negotiations for the conservation restrictions.



Legislative Digest

Several bills of interest to VNRC have made progress during this first month of the 1980 General Assembly. This Legislative Digest briefly discusses the status of some of the legislation. An asterisk indicates that the bill has been included in the recent VNRC legislative Bulletin. Copies of the Bulletin may be obtained by sending a self-addressed, stamped, business-size envelope to: Legislative Bulletin, VNRC, 7 Main Street, Montpelier, Vermont 05602.

J.R.H.59 Extra High Voltage Transmission Lines
(VNRC Supported)
This resolution, introduced by Edwards of Grafton and Fields of Chelsea, calls for an investigation by the Joint Energy Committee of the public health and safety, as well as, environmental, impacts of running extra high voltage transmission lines through Vermont.

***H.251 Endangered and Threatened Species**
(VNRC Supported)
Status: Passed out of the Natural Resources Committee with favorable recommendation, now before the full House for a vote.
Comment: By clearly identifying protected and threatened species in the state and establishing conservation programs and methods of enforcement, the bill significantly strengthens the current law and also enables Vermont to receive federal funding.

H.293 Stream Flow Maintenance
(VNRC Supported)
Status: House Natural Resources Comm.
Comment: H.293 requires any development that might alter stream flows to submit a statement describing how it will conform to stream flow standards set by the Agency of Environmental Conservation (AEC). The bill also provides a means for identifying problems of stream flow alteration before they occur and for assessing the impacts on a project-by-project basis. Rep. Sam Lloyd, Chairman of the House Natural Resources Committee, hopes to move the bill out of the committee by February 15.

***H.343 Land Gains Tax Amendment**
(VNRC Opposed)
Status: Passed out of House Appropriations and Ways and Means Committees, now before House Natural Resources Committee.
Comment: H.343 substantially weakens the current law which has helped discourage short-term land speculation in Vermont. After receiving a favorable recommendation from the Appropriations and Ways and Means Committees, Rep. Lloyd requested the bill be sent to his committee for further study of its environmental impact. AEC Secretary Brendan Whittaker strongly opposes the bill and at a hearing on January 30 public sentiment seemed to be against it as well.

***H.213 Wetlands Conservation**
(VNRC Supported)
Status: House Natural Resources Committee
Comment: H.213 establishes criteria for designating and protecting wetlands according to their primary function, for example, wildlife habitat or ground water quality control. Evoking fears of excessive government regulation, the bill faces stiff opposition if it comes before the House Agriculture Committee. *(See September/October VER)*

Commentary

Rethinking Our National Farm Policy

Robert Bergland
U.S. Secretary of Agriculture

The truth is that our countryside boasts more people and more opportunity today than it has in decades. Nonmetropolitan areas are growing faster than metropolitan areas, and the most rapid growth is taking place in the most rural counties. What is more, this nonmetropolitan growth is taking place in every U.S. Census region.

I think what we're seeing is convincing evidence that rural development efforts launched in the fifties and accelerated in more recent years have helped reverse nearly a century of migration out of the countryside. In 1900, 85% of all Americans lived on farms or in small towns. But from 1945 to 1970, more than 20 million left their rural home for the cities. In the 1950s, more than a million a year were fleeing the countryside. In the 1960s, the yearly number of departures dropped to 600,000 — not because the rate had slowed, but because the source, the rural population base, had shrunk so much in the previous years.

But in the 1970s, the pattern reversed itself. Rural areas gained more than 2 million people, and the growth of rural nonfarm jobs was double the rate of urban jobs in metropolitan areas. Some people, of course, simply opted for country life. Their motivation was more aesthetic than economic. But for many others, the economic factor was of equal if not overriding importance. Earlier this year a report issued by the Urban Land Institute specifically credited those federal and state programs that channeled development money, manpower, and project resources into rural communities with having been a major factor in bringing people and opportunity back to the countryside.

On the farm front, our agricultural exports continue to set new records; commodity prices are up and relatively stable; and there is a good chance that net farm income—which increased 40% in 1978 — could set a new all-time record this year. So I think we are also seeing evidence that farm policy and programs have created a tough, efficient, market-responsive food and agriculture system that rewards the prudent and efficient producer, has all but eliminated hunger in America, provides food aid where it is needed overseas, and still feeds the American consumer for proportionately less of his or her income than most other consumers in the world pay.

Yet in the last several years — and somewhat to my surprise — I have become increasingly uneasy about the state of agriculture and what it portends for the future of rural America.

Somehow I sense that we have no clear purpose or direction, that what semblance of public policy we have is shaped by events and circumstances rather than by vision and deliberation. Programs that are the product of reactive policy tend to be themselves reactive, narrowly forcused or expedient. There are some 144 different farm commodities, for example, and at any one time perhaps 20 of them are in trouble. When the trouble occurs, pressure builds on the Congress to apply a "patch" — higher support prices, emergency allocation for fuel, subsidies for energy to power irrigation systems, or something else in the way of a quick fix. What is more, what policy we have had over the years, for all its remarkable successes, may have had other consequences few foresaw, and many may not want.

Three personal experiences in recent times brought these misgivings home. After a speech I made in Iowa several years ago, I was visited by ten young families. They were tenant farmers. And the land they farmed was being sold out from under them. They wanted to get together to buy that land and save their chosen way of life. They couldn't get the financing. And I thought to myself, the old approaches just won't do. There has to be a better way.

And then, last winter, hundreds of farmers drove their tractors into Washington to tell us that farm programs that had helped increase total farm income to the second highest level on record had not buffered them from the threat of financial ruin. Most of these farmers were not marginal operators. Many had substantial farms. Big machinery. Heavy investments. And an equally heavy debt load.

I did not agree with their argument—that government-mandated 90%-of-parity price supports would save them. I said that what they were asking would only aggravate their problems, because it might price them out of the export market and further inflate the land, capital, and production costs that were at the root of their predicament.

Nevertheless, the demonstration pointed up the inescapable conclusion that what we now have in the way of public policy in agriculture neither gets to the root of an elemental problem, nor addresses the full spectrum of problems arising from the differences in American farming operations. As good as the Food and Agriculture Act of 1977 is, it is flawed as its predecessors were flawed. It, too, fails to recognize the wide diversity in farms and farm problems.

This is why I responded as I did last spring when a young woman reporter stood up at a press conference in Kansas City and asked me what the goals were for U.S. farm policy. Her question was perceptive. I thought hard, and then I told her that while we had *food* policy goals, we did not have farm policy goals that are consistently and explicity expressed. The means and ends become blurred. Price supports, target prices, or the reduction of surplus stocks tend to become the sole focus of policy. Lost is the ultimate goal of these measures—a rate of return for agriculture that is comparable to that earned by other industries.

These incidents, coupled with the mulling over of fundamental questions about agriculture through a quarter of a century of farming, seven years in the Congress, and three as Secretary of Agriculture, have moved me now to call for an intensive review—within and beyond the Department of Agriculture—of all the basic questions relating to what economists call the "structure" of agriculture, to order new or fine-tuned research on the issue, and to invite a national public discussion of policy to reshape farm structure and redirect its course.

What do economists mean by farm structure?

To get at this matter of structure, we have to ask a number of questions. Among them are these: What is the number and the size of our farms? How do they vary by type and by location? How do they relate to their markets? Who owns or controls our agricultural land, and who makes the decisions about its use? What are the technological requirements of our various farms? What obstacles stand in the way of a family getting into farming? How does a farmer retire without selling his land to his neighbor, a speculator, or a developer? What are the social and economic characteristics of farm operators and owners?

At the heart of the issue of structure is the clash between two venerable American ethics. The democratic ethic is predicated upon the belief that control of resources and political decisions should be as broadly based as possible. The enterprise ethic holds that there should be no limits on the amount of property men and women can fairly earn through their work.

These two ethics co-existed in rural society even beyond the time that commercial farms be-

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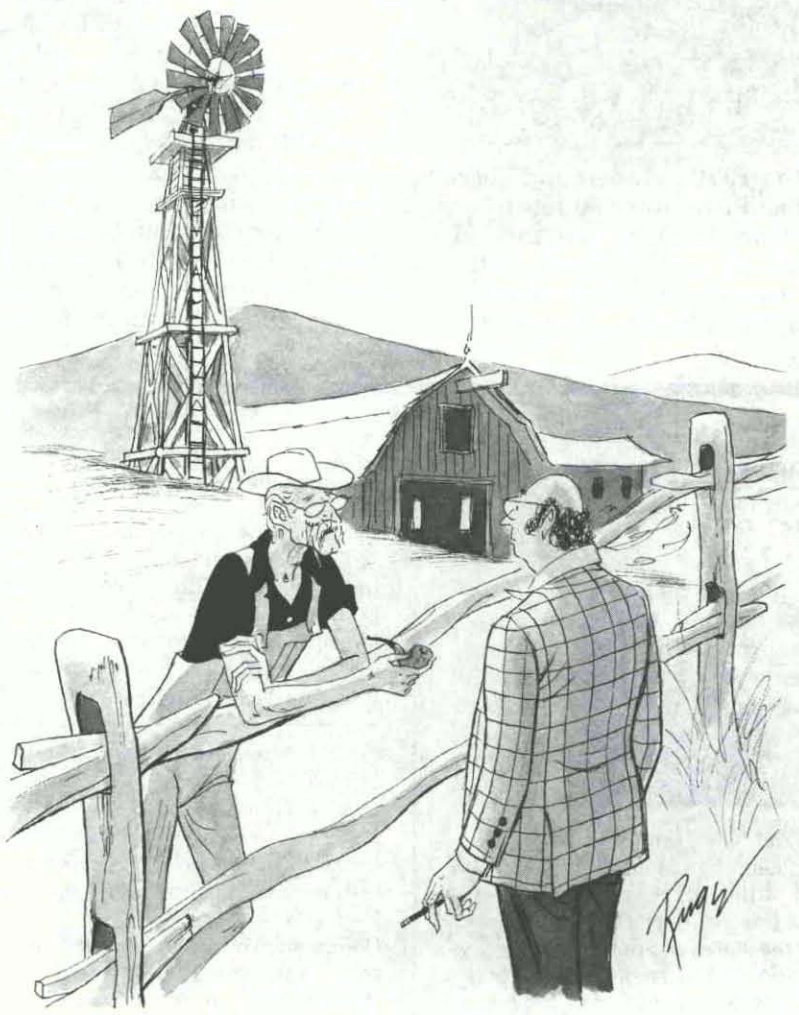

"Back in 1928 a young city-feller tried to talk me into puttin' in electricity — said it was the energy source of the future."

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gan to outnumber the self-sustained family farms. It was not until after World War II—when policy makers made a conscious decision to seek a more efficient use of agricultural resources, and a surge of new technology made it possible for farmers to work more land than ever before— that the enterprise ethic became the dominant ethic in shaping the structure of agriculture.

There is no question that technological advances and the entrepreneurial instinct were of primary importance in developing the "bigger but fewer" farms syndrome. But public policy surely played a critical role, and in my judgment, does so to this day.

What deeply concerns me and many others who work in or depend upon agriculture is that the trends deliberately set in motion or encouraged by public policy makers then and now may be shaping a food and agriculture structure that is not in the best interests of farmers, of the rural community, or of the nation as a whole.

I look at the growing concentration of ownership and control of farm production, farm marketing, and farm supply and I fear the coming of a time when competition in all three areas is reduced to a minimum—to everyone's disadvantage except those few who hold control. I fear the coming of a time when rural communities that are now surrounded and sustained by families operating diversified (even part-time) farms will be surrounded, instead, by empty acres, absentee owned and worked by computerized machines.

That time, thank goodness, has not yet come. But the time *has* come to decide whether this is what we want in the future structure of American agriculture.

The trends are there for anyone to see.

In 1950, we had more than 5 million farms. Today we have fewer than 3 million. Though it has slowed, the decline in numbers continues. So too does the trend toward concentrated ownership and tenant farming. Today 40% of the land being farmed is rented land.

As farms dwindled in number, many grew in size. As they grew in size, the biggest came to dominate production. Today only 500,000 of our 2.7 million farms produce about 80% of our food and fiber.

At the same time, control of the markets where the farmer buys his machinery and supplies and sells his products has become more and more concentrated.

There was a time when farmers were almost self-sufficient. Today they have to buy 70% of what they need to produce. Who sells it to them?

Four companies sell three out of every four tractors sold in America. Four companies sell four out of every five combines. Only two firms sell 79% of all cotton pesticides. Half of the corn herbicides are sold by just two companies.

There was a time when all farm products were traded on the open market, where buyers and sellers competed vigorously in their negotiations. No more. Now we have the total "vertical integration" of the broiler industry, for example. Vertical integration means that the production, processing, and marketing of broilers are all under a single company's control, with no price existing at intermediate stages of production. Pork production is swiftly following the broiler pattern. Today egg prices are determined by formula, because no central market exists. Fruit and vegetable production and marketing is becoming vertically integrated at an accelerating pace. And while grain markets are still largely traditional, contracting, hedging, and pure speculation are on the increase.

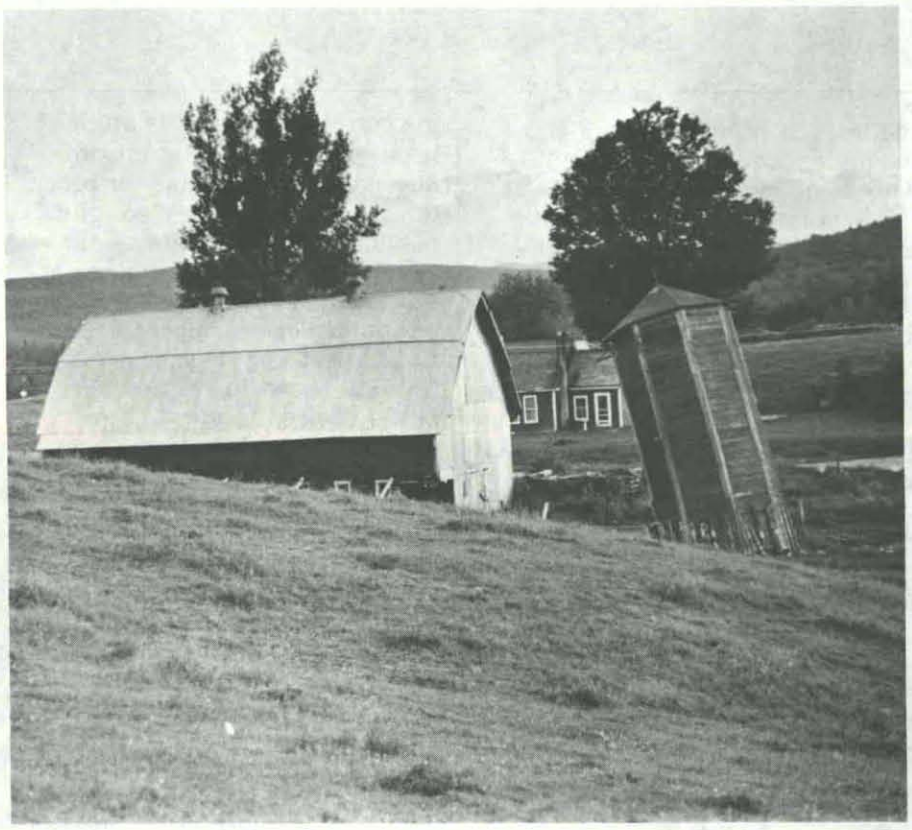
There are those who see these trends as not only inevitable and unstoppable—but desirable. They argue that maximum efficiency in the structure of agriculture has not yet been achieved and that to slow the trends toward concentration of ownership and control would frustrate the attainment of that goal and would penalize the consumer in the process.

Some of the "bigger but fewer" advocates ridicule concern that small, medium, and part-time family farm operations will in time go the way of marginal farms. They point out that the American public did not object when Mom and Pop stores were put out of business by supermarkets, that the public voices little concern that less than 3% of U.S. firms now control more than 80% of all industrial assets.

Still others raise the familiar bogey that any effort, however well-meaning, to slow the trend toward concentrated ownership and control of agricultural resources will lead inevitably to the mandatory breaking up of big farms and big agricultural supply firms.

I sense, with some degree of assurance, that they are wrong on all three counts. There is persuasive evidence that little additional savings in production cost would be gained by further concentration of farm ownership and control. Indeed, there is mounting indication that even part-time farmers, using the right mix of methods, and equipment, can be as cost efficient as some of the biggest operators.

What is more, inflation and the energy crisis could make those smaller operators even more efficient than some of their big competitors. For one thing, their smaller size find them often located close to local markets—thus saving transportation costs. For another, their size makes them less energy and capital intensive.



Photograph by Nat Frothingham

Secondly, the spokesmen for "bigness" in the farm sector are wrong, in my view, when they say the public regards the growing concentration of farmland ownership with the same sanguine acceptance with which they view mergers and the formation of conglomerates in the commercial and industrial sector.

For whatever reason, most Americans, however urban, have a proprietary interest in the land and an almost mystical reverence for the intrinsic values they attach to it. In my judgment, this is why opinion samplings show widespread appreciation of "the family farm" and widespread resentment over the use of tax dollars to subsidize the income of big farm operations.

Third, it does not follow that efforts to preserve smaller family farms must include the breaking up of big farms. I surely see no justification for that. In the first place, "big" is a relative term in discussing farm size, because what is a big farm of one type in one location may be considered a small farm of one type in another. In the second place, all but 2% of our farms are "family farms," regardless of how big they are, and in many instances, their size determines their success. And lastly, I happen to believe that the broadest possible competi - tive mix of farms—and that includes large as well as small—is in the best interests of everyone from farmer to town dweller to urban consumer.

What could this trend toward bigness signal for the future of the rural community? Thanks to development efforts, many rural communities now have a modest industrial base that provides jobs for town dwellers and part-time farmers. But what happens when the farm population shrinks under ownership consolidation to the point where it no longer helps sustain the retail stores, banks, and other small businesses that remain the economic backbone of small towns and cities? I saw what happened in small towns during the Soil Bank years. Farmers put their land into the Soil Bank and moved out. And before long, store after store closed down and boarded up their windows and left.

What troubles me today is the suspicion that public policy is encouraging the trend by helping most those farmers who need help the least, while helping least those farmers who need help the most.

Take the matter of commodity programs. We know that program payments, which are based on volume of production and amounted to $2.03 billion in 1978, provided much greater benefits to the big producers. Ten percent of the farms participating in the programs got nearly half the total payments. They were the largest farms. The smallest farms, those making up half the total, got only 10% of the payments.

I see evidence, too, that tax laws, credit programs, government regulations, farm marketing arrangements, yes, even agricultural research, are skewed to favor the big farm over the small and medium sized farm.

What is more, I suspect that the combination of policies that encourage expansion of farm size and further concentration of control and ownership are impeding freedom of choice—an American ideal I cherish above nearly all others.

Federal commodity programs that stabilized farm prices and protected against disaster made it easier for aggressive farmers to borrow money to buy land and adopt cost-reducing technologies. As their holdings increased, and

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as land values soared, they found it easier to obtain even more credit. So they borrowed, expanded, boosted production, borrowed again, bought out their neighbors, and expanded still more. In time, rising land values and tax advantages began to attract land speculators who took their profit from the sale of the land—not from the products it produced. This in turn, drove farm land prices even higher. Since 1976 those prices have trebled, rising 14% in 1978 alone.

This situation erodes freedom of choice for many already in farming, and many others who want to get into farming. The aggressive farmer who borrowed to expand and buy out his neighbor may find himself trapped in a Catch 22 situation. If he has passed the point of most efficient size, his profit margin per unit of production levels off and he can then only increase his total profit by increasing volume. To do this, he must continue to expand. His only other choice is to sell out and retire.

Photograph by Nat Frothingham

At the same time, young people who want to farm often can afford neither the price of land nor the cost of the money they must borrow to pay for it. They too, have lost their freedom of choice, for they can neither work at what they want nor live where they wish. Yet it need not be this way.

I hope that the review, the research, and the public discussion of farm structure that I have launched this year will show us how agriculture should be shaped, where it should be headed, how to get there, and—above all else—how to save and expand freedom of choice in rural America. If it does, we can look to a time when the farmer caught in the cycle of borrowing to expand, and expanding to survive, can get off the treadmill *without* getting out of farming—and young farmers will be able to *own* the land they farm.

A farmer and former congressman from Minnesota, Bob Bergland is Secretary of the United States Department of Agriculture.

This article first appeared in the November 1979 issue of the Blair & Ketchum Country Journal.

In Brief

Mediation: Settling Environmental Disputes Out of Court

Bonnie Barnes

We are dismayed to discover that overwhelmed courts cannot hear our complaints for months and even years, that the litigious path to justice is exceedingly costly, and that our problems do not vanish upon the issuance of a court decree. Yet the rush to the courts is unabated, and it appears the practice is accelerating.

Shirley Hufstedler, Federal Judge, Ninth District Court of Appeals

To embattled environmentalists, developers, and other assorted partisans, mediation offers a refreshing alternative to protracted litigation, deadlocked issues, and frenzied lobbying.

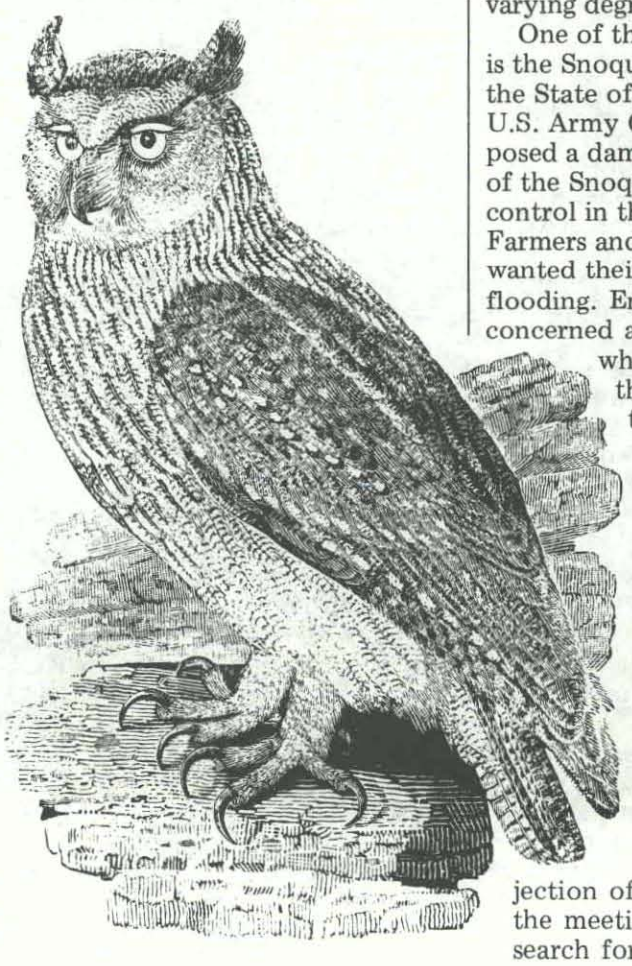
Environmental mediation is a voluntary process in which the disputing parties, with the aid of a neutral mediator, work together to reach an acceptable solution. The process can be arduous—long meetings, full of acrimonious airings of treasured principles—but at some point the search for a workable, mutually agreeable settlement becomes absorbing.

The mediator has no authority to impose a solution, and must rely on the desire of the parties to reach a settlement. All groups who have a stake in the outcome of a dispute should be represented in the negotiations.

In contrast to winner-take-all methods of resolving disputes, mediation involves compromise. This is the recognition that no single point of view will prevail at the expense of the rest. Without the desire of all to reach a settlement, and the willingness of all to compromise in order to achieve that end, mediation cannot succeed.

The process of mediation works best where the parties and issues are clearly defined and are of long standing, where appropriate public officials support or even initiate the effort, and where those involved feel they have reached an impasse.

Environmental mediation should not be seen as an universal substitute for other methods of settling disputes, nor should it be a technique for avoiding or suppressing conflict. Conflict is often a healthy and useful stimulus for needed change in policy or procedures. In some cases mediation may not be appropriate. For example, in a conflict where one side is adamant, where any sort of compromise is unacceptable, there is nothing to gain by negotiating. These "hardliners" are better advised to pursue direct action through litigation. In a conflict where one side is, or is perceived to be, more powerful, there is no incentive to bargain. And in situations where time is crucial, disputants might be unable to reach agreement within the time limit or could misuse the mediation process by stalling.



There are several cases in the United States where mediating techniques have been tried with varying degrees of success.

One of the best known instances is the Snoqualmie Dam dispute in the State of Washington. The U.S. Army Corps of Engineers proposed a dam on the Middle Fork of the Snoqualmie River for flood control in the eastern Seattle area. Farmers and other landowners wanted their land protected from flooding. Environmentalists were concerned about the development which would follow the the construction of the dam and the effect it would have on the natural environment. The situation had apparently reached an impassed when two environmental mediators from the University of Washington were appointed by the governor, and the disputants agreed to try mediation. After much discussion, submission, and rejection of alternative proposals, the meetings evolved into a search for a plan that would provide flood controls, prevent uncontrolled development, and maintain the economic viability of the area.

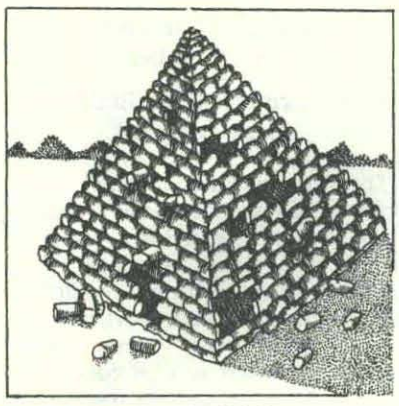
The final agreement called for a dam on the North Fork of the Snoqualmie in an area that was less vulnerable to ecological damage and for land use controls in the river basin. An agency was created to oversee planning and development for the entire region. The controversy began in 1959. Environmental mediation was introduced into the dispute in 1974, and the participants reached a settlement by the end of the year. The agreement gained widespread support from the governor, public interest groups, farmers, and other landowners.

In Vermont environmental mediation has not been as successful. Debate over wilderness areas in the state has been persistent and bitter for many years. The current issue is whether there should be wilderness areas designated in the Green Mountain National Forest under the national Roadless Area Review and Evaluation (RARE II) program. Although several groups and individuals on all sides of the controversy favor mediation, and Vermont's congressional delegation is also in support, all of the disputants have not come to the point of negotiating. Since the process is entirely voluntary, the prospect for mediation on the wilderness issue is uncertain at pressent.

Environmental mediation if used wisely can work well. Confronting and resolving conflict in a manner that searches for areas of agreement rather than emphasizing polarization is an encouraging concept for the 1980's.

Bonnie Barnes is a graduate student at the UVM School of Natural Resources

The Council



Drawing by Wendy Edelson

Environmental Law Service

Pyramid Revisited

Steven Stitzel

The Pyramid Company of New York is not abandoning its plans to build a regional shopping mall in the Town of Williston. Having failed in its attempt to obtain an Act 250 permit from the District 4 Environmental Commission in October of 1978, the Company has taken its case to the Chittenden County Superior Court.

VNRC's Environmental Law Service is representing the Williston Committee for Responsible Growth, a citizen's group opposed to the mall, in this appeal. Headed by attorney Darby Bradley, the ELS is recruiting the Environmental Law Center in South Royalton to assist in researching the difficult legal issues raised by Pyramid, and is also cooperating with the State of Vermont, the City of Burlington and the Central Vermont Regional Planning Commission as they prepare to face the Pyramid Company in Court.

In its Superior Court action, Pyramid has raised over 24 legal challenges to Act 250, Vermont's land use and development law. The key issue in the case remains the economic impact the proposed mall would have on the tax base of the City of Burlington. The District Commission denied Pyramid's application mainly because the mall would reduce Burlington's tax revenues. This, reasoned the commission, would adversely affect the city's ability to provide municipal services.

Pyramid Company lawyers contend that the mall's possible impact on the Burlington tax base cannot be considered under Act 250. If the impact on Burlington is considered, they go on to argue, then Act 250 is unconstitutional under both the U.S. and Vermont Constitutions. Pyramid's lawyers also argue that an attempt to use Act 250 to protect the Burlington economy violates this country's fundamental principal regarding free competition.

Bradley argues that the mall's impact on the Burlington tax base can be considered under Act 250 if the General Assembly intended that result. Bradley explains, "To determine whether such intent exists, the court in this case will have to carefully read the language of Act 250 and delve into the statute's legislative history." The legislative history includes testimony before legislative committees and statements by legislators during the adoption of the law.

The constitutional challenges to the law present a much different question. The court must determine whether the use of Act 250 to prevent Pyramid from building the proposed mall violates any of Pyramid's constitutional rights. For example, Pyramid claims that in denying it an Act 250 permit, the state has taken its property without paying just compensation. To determine whether a "taking" has occurred, explains Bradley, "the court will have to compare the facts of this case with those of cases decided previously by the U.S. and Vermont Supreme Courts. The court is free to look to other states as well for legal precedent on this issue." By engaging in similar comparisons, the court will decide on the other constitutional challenges raised.

Turning finally to Pyramid's claim of interference with free competition, Bradley points out that governmental bodies acting in a governmental capacity have traditionally been exempted from prosecution under the country's anti-trust laws. This is sound public policy, Bradley contends, since many forms of regulation, which are necessary to promote the health and general welfare of a community, have the effect of restricting competition. The court in this case must decide whether this action, preventing the construction of the mall, deserves the same treatment.

The Pyramid case is expected to be a lengthy process. "It seems certain," said Bradley, "that whatever the Superior Court decides, someone will take the issue to the Vermont Supreme Court, and possibly the case will travel eventually to the U. S. Supreme Court."

Steven Stitzel is a law clerk for the Environmental Law Service.

Wetlands Report

A primer on Vermont wetlands has just been released by the Agency of Environmental Conservation. *Wetlands in Vermont - Their Identification and Protection* is the culmination of a two year study the Council undertook for the AEC. This 70 page report, written by Robert Wanner, director of the project, covers in detail the social and economic, as well as environmental, benefits of wetlands: preservation of natural diversity, water quality control, wildlife habitat, education, and recreation.

Swamps, bogs, and marshes, the predominant types of wetlands found in Vermont, are described in a chapter on the natural history. "Marshes," writes Wanner, " are quiet places rich in colorful grasses and a variety of fish, waterfowl, songbirds, and mammals." He points out, "Acre for acre, these areas produce more living material, plant and animal, than any other type of biological system."

Until now the extent and condition of the wetlands in Vermont has been unknown. Information gathered from U.S. Geological Survey maps, the Fish and Game Department, and new findings identifies 4,578 wetlands in the state totaling 110,323 acres. According to a study included in the report, there is evidence that wetlands are being altered. For example, since 1963, 75% of the 100 wetlands sampled had inlet and outlet channels filled.

With the crush of development along the Lake Champlain shore, the need for strong, comprehensive protection of the wetlands resource is evident. The last chapter of the report discusses methods for protecting wetlands - both regulatory and non-regulatory. Included in the Appendix is a copy of the current bill before the legislature, along with a list of wetlands already identified in need of protection.

If you wish a copy of *Wetlands in Vermont*, send $1.35 for postage and handling to: Wetlands Report, VNRC 7 Main Street, Montpelier, Vt. 05602.

Why January Renewals?

If you are one of the approximately 280 people who joined the Council sometime during the last year, you may wonder why we are asking you to renew so soon.

The reason is that even with the help of donated computer time, VNRC does not have the administrative capacity to run its renewal operations year-round. Also, if we moved to an "anniversary date" renewal system, such as magazines use, the volume of reminders to be sent out each month would not be enough to allow us to take advantage of the low bulk mailing postal rate we presently use.

People who joined in the last quarter of 1979 will not be asked to renew until January 1981.

Many thanks to all those of you who have already renewed for 1980.

Help Us Get Out the Word

. . . tell a friend about VNRC. Recommend the name of a friend who believes -- as you do -- in a clean, healthy, productive Vermont, and we will invite him or her to join our efforts and receive the **Vermont Environmental Report** and special **Bulletins** throughout the year.

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Address _____

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Moving?

Please send us your change of address

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New Address

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Update:

CVC Challenges Berlin Sewer Hook-Ups

Citizens for Vital Communities, a group opposing the two malls being planned for Berlin, is challenging actions recently taken by the Agency of Environmental Conservation (AEC) allowing the town to continue discharging sewer wastes without a permit. In a letter to AEC Secretary Brendan Whittaker, Darby Bradley, CVC's attorney and head of VNRC's Environmental Law Service, charged that Berlin is violating both state and federal water quality laws, and that any official action from the state allowing an increase in the level of discharge is illegal.

Federal and state laws require all discharging municipal treatment plants to have a valid permit. Until last fall, the Berlin treatment plant was discharging under a temporary pollution permit, a type issued to sewage plants that are unable to meet required treatment standards. This temporary permit expired in September 1979, and Berlin requested a new permit from the Agency. Since the plant is unable to meet federal effluent limitations, the AEC cannot issue a discharge permit, and is also precluded by federal law from issuing Berlin a new temporary pollution permit.

Although admitting that Berlin is not entitled to a permit, the Agency is proposing to issue instead an "assurance of discontinuance." This is, essentially, a way to settle with a polluter out of court. An "assurance of discontinuance" attempts to force polluters to comply with a law by establishing a timetable for termination of the illegal discharge, and by imposing treatment standards that must be met during this period.

CVC does not dispute the Agency's authority to issue an "assurance of discontinuance." Bradley contends, rather, that the Agency cannot authorize an *increase in the level of an illegal discharge under this procedure.* Allowing the construction of two large regional shopping malls, CVC argues, will increase the amount of sewage flowing in and out of the Berlin plant.

CVC has also notified the federal Environmental Protection Agency of Berlin's violation and the AEC's action. Bradley pointed out to EPA that, under the Urban Conservation Policy recently adopted by the White House, federal agencies must cautiously consider any action they take which might encourage construction of a mall adversely affecting a community's existing downtown.

CVC spokesperson, Kathy MacPherson, said, "The group is prepared to pursue this issue into court if necessary. We are opposed to the malls, but we also want the Agency and the Town to carry out the intent and spirit of the water pollution control laws."

On February 1, just as this issue of the VER was going to press, the District 5 Environmental Commission denied a permit to Berlin developer Henry LaGue to construct 64 apartment units. It was the decision of the Commission that the development could not meet Criterion 4 of Act 250 (water pollution) since the Berlin plant, into which the sewage would flow, was operating without a permit. The Commission further expressed the doubt that the Assurance of Discontinuance, if signed, would be sufficient to show compliance with that Criterion.

VERMONT ENVIRONMENTAL REPORT

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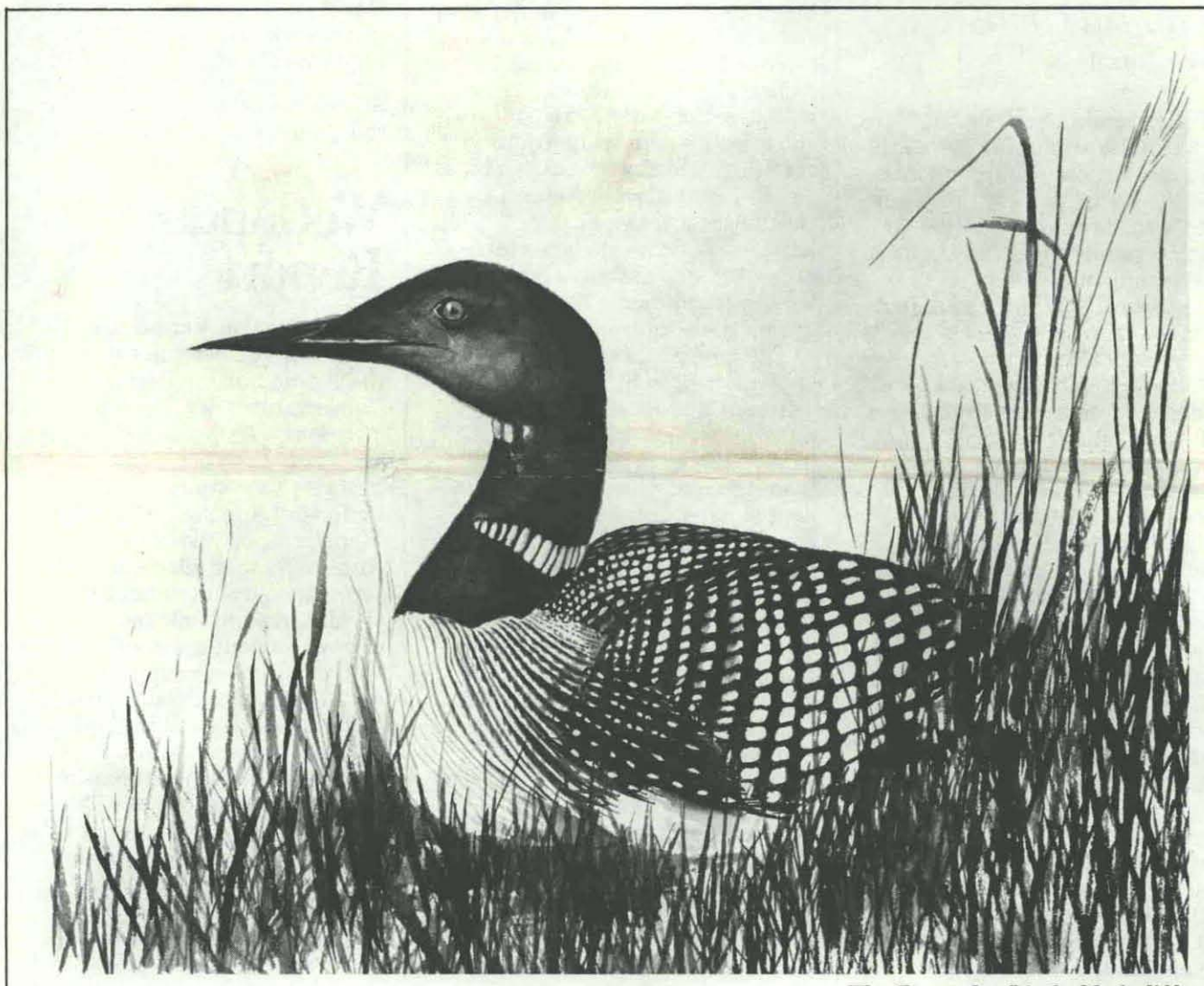

The Loon *by Linda McAuliffe*

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