

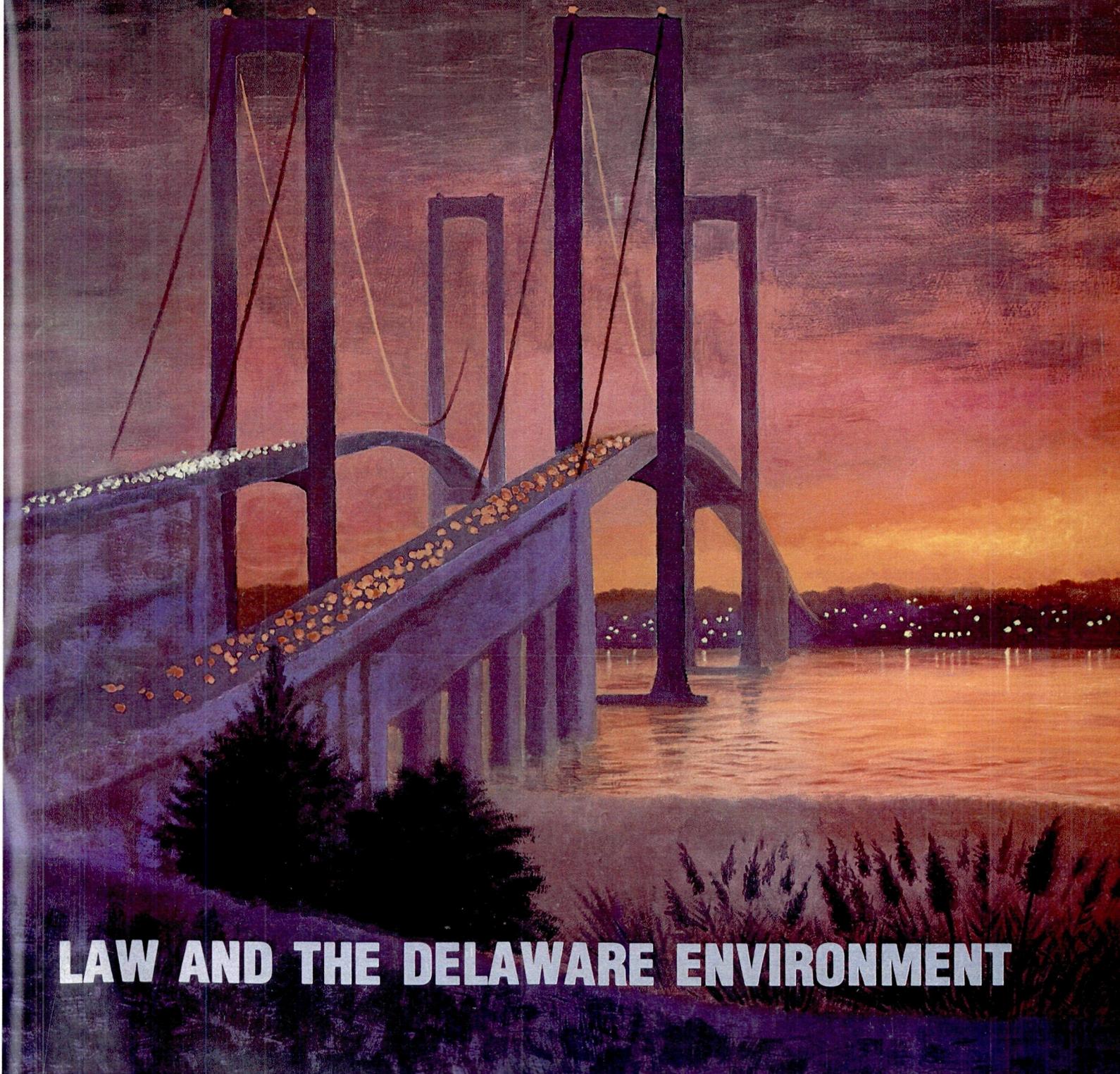
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FALL/WINTER 1983



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Our Cover: (Learn about the artist, Janet Rontz, page 58)

This view of the Delaware Memorial Twin Bridges shows artifice in harmony with the nature it inhabits. Few passengers crossing these most visible man-made presences in our landscape realize that the bridges doubly benefit us. The Delaware River and Bay Authority, which operates the bridges, is sponsoring a long range program to assess the river estuary and how to enhance its best use, balanced among industry, fishing, and recreation. Tentative findings: despite awesome sewage inputs along the Philadelphia-Trenton stretch of the Delaware, the river's funnel shape makes it surprisingly resilient in purging itself of these additions. A better grasp of the mechanics of the river, its tides and ecology, will permit more discriminating and exact decisions in the interest of our environment.

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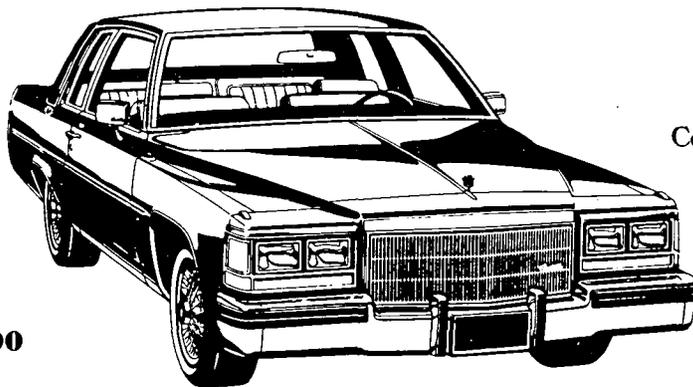
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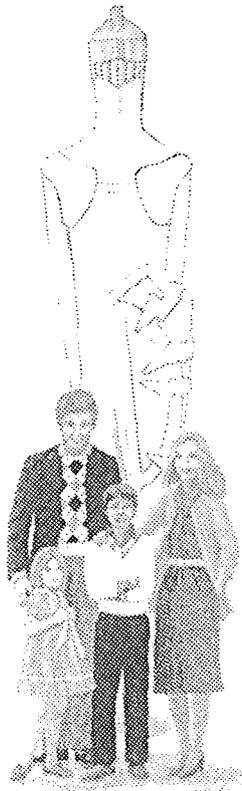
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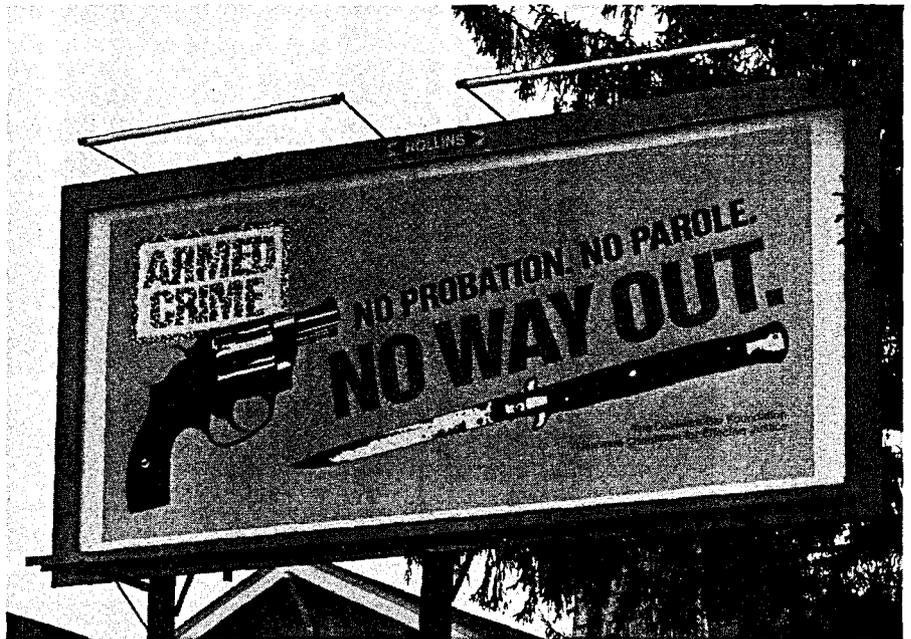
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BAR FOUNDATION CORNER



Recently Delawareans have become familiar with the advertisement pictured above. The Foundation, which is our sponsor, has mounted a no-nonsense campaign against crime on the premise that full awareness of consequences may lead to reflection on the part of a prospective criminal before he surrenders to a rash and foolish impulse. (See Bar Foundation Corner at page 3 of our winter/spring 1983 issue and the remarks of Chairman Victor Battaglia.) The Foundation is also making available bumper stickers with the same blunt message. Like most good and useful things, this program costs money. At our request, Foundation director William Prickett penned the following explanation of Foundation activities and frank plea for help to the Foundation in its good works. We hope that many of our readers will rise to the occasion and help in furthering projects of the Foundation.

SUPPORT FOR DELAWARE BAR FOUNDATION

Delaware Bar Foundation is the non-profit arm of the Bar. Its function is to provide a vehicle for the pro bono work of the Bar. Since its activation several years ago, Delaware Bar Foundation has been a catalyst in several significant areas, including a leadership role in the project to provide funds from interest on lawyers' escrow and trust accounts (IOLTA), the above campaign on crime, and educational programs for the schools as well as the Bench and Bar.

Members of the Bar got Delaware Bar Foundation off the ground by becoming members of the Foundation. Currently, the Bar is being solicited for funds for the Foundation by becoming members of the Foundation for the current year.

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EDITORS' PAGE

The environmental issues of the 1970s and 1980s are rapidly ceasing to be abstract national issues, and becoming concrete neighborhood ones. If the press has sensationalized the issues, it has surely captured public attention because we are beginning to realize that a resolution affects us personally and immediately. Thus, these issues generate a peculiarly intense heat, reflected in political, legal, and regulatory debate. The controversy is fed by the fact that resolution of the issues (or a default in resolution) may create long-lasting, perhaps irreversible consequences.

Here the law acts with a special responsibility. Unlike many regulated areas, there is no "free market" alternative to environmental regulation. So long as the air is free to breathe and the water free to take (if one pays the cost of the taking) the "free market" will not value what we stand to lose once it is spoiled. Polluted air and water are not cost entries on any industrial balance sheet. To industry, the immediate cost of curing pollution will nearly always exceed the short-run cost of polluting. The free market contains no balance wheel that pulls us toward preventing pollution. So, it seems the law must intrude, but the greatest controversy is over when and how that intervention should take place.

If a perfect environment is impossible, how imperfect can we afford to be and, conversely, how close to perfection can we afford to get?

The bulk of this issue examines some of Delaware's environmental ailments. This eclectic grouping of articles offers no grand schemes, scholarly abstractions or political polemics. It consists of the observations of persons active, personally or professionally, in that large region so vaguely called "the environment." As always, we hope that these obser-

vations may spark some controversy and debate.

David C. McBride

Dave is principally responsible for the design of this issue and the commissioning of articles. Many Thanks.

The Editors

* * * *

At the east end of the lobby of the Nemours Building in Wilmington there is a piece of institutional art, a mural portraying the blessings of chemistry. On the left an impoverished family in rags struggle up a rocky path, looking none too damned pleased about a life devoid of synthetic fibers. On the right, separated from the folks on the left, as sheep from goats (separated in fact by an aluminum genie clutching a test tube) stands a family positively wallowing in the blessings of chemical know-how. Glowing with health, neatly clad, and wreathed in smiles, father, mother, and kiddies stand before a road clogged with motor cars in the shadow of a great city where a factory chimney belches puffs of wholesome industrial smoke. Well, how times change! And then how they change again! The Nemours Building mural, surely the object of sniggers during the 1960s and early 1970s, may once again be speaking truths that we disregard at our peril. As people need work to eat, we had best find ways to be environmentally sound without being economically arid. The articles in this issue suggest strongly to us the prospect of a more reasoned environmental discourse than that prevailing during the brouhaha of a decade ago. The debate is becoming sane and civil, and for this, we believe, the institution of law should enjoy at least some of our thanks.

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How to Reach Environmental Integrity

WILLIAM G. SIMERAL

Last June William G. Simeral, Executive Vice President of the duPont Company, addressed the annual meeting of the Chemical Manufacturers Association in his capacity as retiring Chairman of that body. DELAWARE LAWYER is grateful for the opportunity to reprint excerpts from that speech.

To our way of thinking Mr. Simeral makes several telling points to be borne in mind in any effective ap-

proach to environmental integrity. First, fear and hysteria (neither in short supply these days) get you nowhere in resolving complicated technical issues. Sound regulation and the resolution of our problems will not be at hand without recourse to the expert knowledge of the chemical industry. Secondly, in a pleasingly old fashioned American way, private industry is demonstrating its resolve to save itself (and our enviable level of mate-

rial well-being) and it will do so because it has the requisite will and intellectual resources. Finally, Mr. Simeral's call for a creative working relationship among government, private groups and industry seems long overdue. He has told us that discussions along these lines have been initiated and that he has high hopes for an action program, because he finds that these three segments of society seem ready for this approach.

Public perception of the chemical industry is fraught with misunderstanding. In recent years we have witnessed one sensational media story after another in which our products have been depicted as direct threats to the safety of people and the environment: PCB's, saccharine, fluorocarbons, formaldehyde — the list goes on. The problems of hazardous wastes and abandoned dumps have almost become syndicated features in many newspapers.

We tend to consider the public attitude toward the chemical industry a part of the anti-business sentiment every industry faces. That may explain some of our problems, but it doesn't explain all of them, and certainly not the most crucial ones.

I submit that the fundamental cause of the chemical industry's public perception is basic *fear of chemicals*. I do not use the word fear in a figurative sense, as in worry or concern. I mean genuine phobia and anxiety.

This fear of chemicals is *the* issue facing the chemical industry in its relationship to the government and the public. In a sense, we have a one-item agenda: All the major issues facing us flow from the fear of chemicals, their presumed toxicity, and their potential impact on human health. Unless we can get the issue of chemical toxicity into proper perspective in the public mind, we will never make genuine progress in the public policy arena, and our industry will never reach its full potential.

Everywhere we turn, the issue of chemical toxicity confronts us. Toxic

pollutants are an issue in connection with the Clean Water Act and the Clean Air Act. Toxic chemical waste disposal involves both scrutiny of present practices and the cleanup of old dump sites. Compensation for individuals who might be injured by exposure to chemical waste is a growing issue. And older issues like the tox-

city of food additives and agrichemicals are still with us. All contribute their share to the public phobia.

The intensity of public concern over these issues may surprise those of us who have spent our careers in the management of risk. And the public's ignorance of the constructive work we have done to minimize risks is a constant source of frustration. We have long been aware of the toxicity problems associated with our industry, and we have taken steps to deal with them. To us toxicity is one of many concerns that we have tackled — with considerable success — over the years.

To the public, however, it is the *only* concern. If you asked the man on the street whether chemical toxins are a bigger problem today than they were in the forties and early fifties, he would probably say that they are — *contrary to fact*. We are faced with a situation in which the media and public have focused on the toxicity issue to the exclusion of all other issues surrounding the chemical industry. These circumstances are not likely to change in the foreseeable future.

Is the chemical industry poisoning America? No. It's unqualified nonsense even to suggest that it is, but the American public does not share this belief. The average person does share the common anxiety over chemicals, grounded in irresponsible statements of some scientists and politicians, and sustained by the mass media.

In the face of this, some in our industry have responded by saying, "So what?" And we might ask ourselves whether it really matters if the public feels this way. I would answer that it



William G. Simeral has been a director, a Senior Vice President, and a member of the Executive Committee of the DuPont Company since October 1977, and an Executive Vice President for the last two years. He holds a baccalaureate in physics from Franklin & Marshall College and a doctorate in physics from the University of Michigan. Dr. Simeral's talents have found outlets in substantial community service: he served as the Chairman of the Board of the Chemical Manufacturers Association 1982-1983, he is now Chairman of the Board of the Wilmington Medical Center, a director of Delmarva Power & Light Company, and a member of the Board of Trustees of Franklin & Marshall College. We are pleased to welcome this gifted writer and trenchant thinker to the pages of DELAWARE LAWYER.

probably doesn't hurt anything but our self-esteem if we are merely disliked; people who dislike you tend to avoid you and go their separate ways. But it does matter if people are *afraid* of you: people who fear you write their congressman, they take part in demonstrations, and they vote against your interests on election day. A false perception of the chemical industry *does* matter, and we owe it to ourselves, as well as to the public's peace of mind, to set about correcting it.

To start, we can clean up the dumps. I know that this is easier said than done. But let's state the issue up front. It doesn't matter whether or not your company or mine has anything to do with a specific site. We are all being tarred with the same brush. It also doesn't matter whether or not a given site poses a genuine health hazard; the public perceives the potential for one.

Abandoned dump sites are the single, most obvious symbol of everything the public believes to be wrong with the chemical industry. Whatever their impact on the environment, rusted drums are poisoning the climate for the chemical industry in Washington and across the nation. As long as we let the problem persist, we don't stand a chance at winning

the confidence of the people.

We can't afford to sit around and wait for the Federal and state governments to act. Senator Howard Baker recently said that the chemical industry is getting a terrible rap. But he reminded us that it's not enough to do what the law says — we must anticipate problems and become leaders in solving them.

We have to take the initiative. Individual companies must get involved — literally — in the cleanup. Several companies have been studying possible ways to offer our expertise to the government — a way to mount a proactive program aimed at speeding up the cleanup of selected Superfund sites.

Such a program might include selecting a site; forming a consortium of responsible, interested parties; evaluating the site and developing a cleanup plan; obtaining EPA assurance that it qualifies for Superfund money; and then cleaning up. Meanwhile, if the government comes to us and asks for help, we must be prepared to give it.

What the public needs to learn — and what we have to continue to remind ourselves — *is that the chemical industry is the major resource of technical capability for dealing with this problem.* The government doesn't

have enough experts; one way or another we must help. I'm convinced that the best way to get the job done is for us, wherever feasible, to organize the cleanup and execute it under the auspices of the EPA and with proper protection for liabilities.

The bottom line is that doing something about abandoned dump sites doesn't mean talking about the problem; it doesn't mean holding press conferences; it doesn't mean conducting studies. *What it means is rolling up our sleeves, assigning project managers, and going to work.*

I must caution you on one thing, however. I know that your lawyers will be able to cite many good reasons for not doing any of this. But if we're ever going to succeed, we must be willing to accept at least some legal risks. We can't be perceived as hiding behind our lawyers. We should take care to minimize risks as much as possible, but we can't let this concern prevent us from completing the task at hand.

Concurrent with getting the dump site problem under control, we must address the misconceptions of the public about chemicals and the chemical industry. Here the most important thing we can do is to promote some means for providing accurate, reliable information about the myths and realities of the health effects of chemicals.

The root of public misunderstanding about chemicals is not only the media, but the sources from which the media obtain their information. As it stands, there is no universally acknowledged authority on health effects of chemicals. Moreover, much of the information that the media obtains comes from highly technical sources. Such information is only of use when it is interpreted objectively by fully qualified health scientists.

What we see in the media is invariably an oversimplification — exaggerated for effect. Those who possess some familiarity with toxicology know that the results of toxicological tests and their implications for humans are seldom clear cut. Even the best experts can disagree on the meaning of a set of test results.

But more to the point, do toxicology studies provide the right kind of information for the layman? I doubt it. Ask your next-door neighbor what parts per million in air signifies, or ask him to explain the difference between a teratogen and a mutagen. I think you'll find that, in general, the

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public has no frame of reference for this kind of information. *But when people are told that something they don't understand may be a matter of life and death, their response is genuine anxiety, fear, and alarm.*

What the public needs is plain English information pertinent to their basic question: Are chemicals going to hurt me? We are not dealing with a scientific concern so much as we are dealing with a public health concern.

A case in point: A few weeks ago I spoke to several reporters in the St. Louis area. Each had a question about dioxin, which they all knew was extremely toxic. But not one of them had any idea that if you were exposed to dangerous amounts of the chemical you would develop certain symptoms, in particular chloracne. They were surprised when I explained that people who had not developed these symptoms probably had not had a serious exposure. From what they told me, at no point during the uproar in Missouri had anyone made clear to the people so basic a medical fact.

What we really need is a new way to deal with public health issues involving toxic substances. There are now a number of government agencies involved in various aspects of the problem — environmental or occupational health, for example. Present procedures place the health experts in a secondary role at best. Instead, when it is discovered or suspected that a toxic substance may cause a health problem, the health issues should be dealt with first by experts in human health matters. Such people are the only ones qualified to assess risk to human health and to inform the public about the risks. Frequently, conclusions as to health risks, which should be based on medical knowledge, are reached by officials with no proper qualifications. Such conclusions are much too important to be placed in the hands of untrained laymen. The public deserves to hear from the people who understand all of the ramifications of human health matters.

If we had such an authority today — which the media would call an unimpeachable source — everyone could look to it for basic information, and we could eliminate much of the hysteria, fear, and unwarranted action that characterizes the issue of toxic substances today.

To have such an authority, several preconditions would be necessary:

First, its lines of authority would have to be crystal clear. Second, its mission would have to be defined in such a manner that it could avoid turf battles with our parts of government. Third, it would have to be adequately staffed and equipped to acquire and maintain the necessary expertise. And fourth, its organization and leadership would have to be apolitical.

Within the Federal government the Center for Environmental Health of the Centers for Disease Control (CDC) already performs part of the role I have outlined. Certainly, the CDC has an excellent reputation for effective application of medical science. I favor building on the excellent base of the CDC. But more institutional creativity is needed to achieve the type of authority I am proposing.

The sooner we get started on something like this, the better off our nation will be. I might also add, the better off our industry will be as well — especially in light of increasing activity in the area of victims' or public compensation. As many of you are aware, legislation has been introduced to provide a Federal compensation mechanism outside of the state tort law system. The burden for paying for such a system would fall on industry. The potential costs we face regarding compensation for real or imagined exposure to toxic chemicals are enormous.

We are in the difficult political position of questioning to what degree a public health problem exists. Our only hope is to convince the public and the Congress through unbiased, expert information on the public health ramifications of toxic chemicals interpreted by acknowledged medical authorities.

That's the agenda for the chemical industry as I see it. The challenges before us are clear: *The public fears us and our chemicals.* We are faced with legislative and regulatory actions that are largely driven by this fear. We will fail if we cannot change this fear. Short term, the most important thing we can do is help in every way possible to clean up existing dump sites that are perceived as health threats. Beyond that, we must dispose of our wastes in ways that are not threats to public health. And longer range, we must develop and disseminate factual information about the health effects of chemicals in ways that are convincing to the public. □



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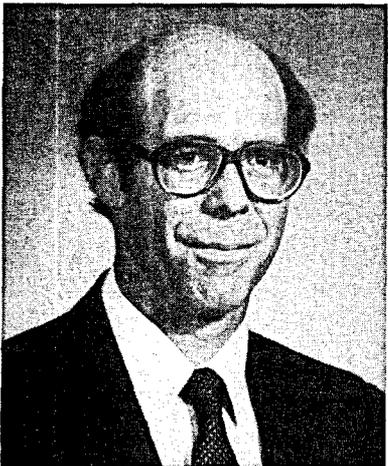
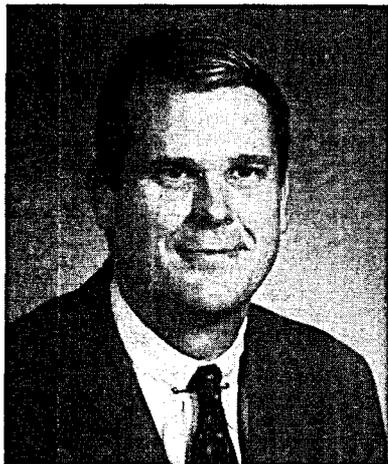


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Clean Air and Water A Decade Later

CHARLES F. RICHARDS, JR. AND STEPHEN E. HERRMANN

This is a fitting year to reflect on how Delaware has fared under the Federal Clean Air Act (42 U.S.C. §§7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. §§1251 et seq.). First, because in 1972 when the Clean Water Act



Messr. Richards and Herrmann are both directors of Richards, Layton & Finger, P.A. Each has devoted a substantial amount of his time to environmental problems on behalf of a wide range of clients. Mr. Richards is a graduate of Princeton University and Yale Law School, and, in addition to environmental matters, has devoted his practice to rendering corporate advice and conducting corporate litigation. Mr. Herrmann is also a Princeton University graduate and a graduate of the University of Virginia Law School. After a brief sojourn with the EPA, Mr. Herrmann has concentrated his practice on environmental law matters and corporate and general litigation.

was adopted, Congress foresaw that "not later than July 1, 1983" industrial facilities in the United States would attain the "national goal of eliminating the discharge of all pollutants" from water effluents. The Senate Report predicted that there would be few industrial dischargers in 1983 who would be able to prove that they could not achieve the "no-discharge" requirement of the legislation. While this national goal of no-discharge remains in principle, the industrial requirements have changed to reflect more realistically the technological and economic status of industry in the United States. This year is also important because the authorizations for both the Clean Water Act and the Clean Air Act expire in federal fiscal 1983 unless they are reauthorized by Congress. These statutes have been important to Delaware, and should not be taken for granted. Yet, they should not be renewed without reflection on how well they have served us.

STATUTORY FRAMEWORK

While the approaches to regulation of pollution in air and water are significantly different, however, they do share one important feature - dual administration at the State and Federal levels. It may be helpful before we go further to review how each of the Acts works and the roles of the federal and state governments.

The Clean Air Act, passed in its modern form in 1970, provided separate regulatory modes for different types of pollution "sources." Title I of the Clean Air Act deals principally with controls of "stationary sources" of air pollution, such as factories and power plants, while Title II focuses on "mobile sources," such as motor vehicles and aircraft. Title I imposes a complex and variable set of requirements on stationary sources. These requirements are largely contained in state implementation plans (SIPs), which are comprehensive pollution control programs established by each state subject to United States Environmental Protection Agency (EPA) approval. In addition, once a state

has an approved SIP, each state issues permits, which are supplemented by national control standards. Delaware was the first state in the country to have a federally approved SIP.

The 1972 amendments to the Clean Water Act superimposed on the basic structure established in 1967 a system of nationally uniform technology-based effluent limitations laid down by the EPA for major "point sources" of water pollution. Section 301 of the Water Act requires that all "point sources" of water pollution come within effluent limitations, which in turn must conform to EPA "effluent guidelines." These requirements are enforced through a federal permit system for point sources, the administration of which may be delegated by EPA to the states. Again Delaware was among the first states authorized by the EPA to issue these permits.

The Clean Air and Clean Water Acts use different conceptual approaches. The Clean Air Act uses "ambient" calculations; the Clean Water Act uses a "technology-based" standard. Under an ambient approach, the regulatory agency sets a desired level of air purity, and then computes and imposes the pollution reductions it estimates are necessary to achieve that goal. Under the technology-based system, the agency simply requires the specific levels of water pollution control without detailed assessments of the resulting ambient effects.

The Clean Water Act's technology-based approach avoids the fundamental question of the desired level of water purity. Thus, the regulators and the regulated design control systems without directly considering the goals to be achieved. Accordingly, as case studies have aptly demonstrated, a purely technology-based approach controls some pollution sources too much and others too little, entirely overlooking major contributors to the problem.

On the other hand, Title I of the Clean Air Act with its ambient con-

siderations, while free from one fundamental conceptual flaw, has serious problems in application. In particular, the treatment of new knowledge takes on added significance where ambient-based controls are involved. An ambient scheme forces the development of new knowledge about pollution by making that knowledge relevant to the very practical task of setting emission standards. However, at times the new knowledge calls into question the environmental standards themselves. Most obviously, the understanding of what constitutes an ambient "problem" can change. For example, one air quality standard for ozone has been relaxed by fifty percent since it was set ten years ago, as the result of subsequent data on the need for such a standard.

Delaware has legislation (7 *Del.C.* Chapter 60) that parallels the two federal acts, and a series of regulations promulgated under the state enactment. Thus, an industrial water discharger in Delaware receives from the State of Delaware both a permit pursuant to the Clean Water Act and a State Permit under Delaware law. Both permits are issued by the Delaware Department of Natural Resources and Environmental Control ("DNREC"). An industry subject to regulation under the Clean Air Act must secure an operational permit from the State which also imposes the federally approved SIP requirements.

AN APPROACH TO ENVIRONMENTAL ADMINISTRATION

Delaware entered the era of the new Clean Air and Clean Water Acts without enough personnel to administer environmental programs. Unfortunately, Delaware was the site of the first litigation brought by the United States Environmental Protection Agency under its new clean air regulatory authority. This action by EPA placed the Delaware environmental administration at loggerheads with industry at the very inception of environmental programs. With a small staff and a hard push by EPA, the DNREC was forced into a confrontational position with Delaware industry without the basis of a government/industry dialogue. Recounting even brief scenarios highlights the naivete of the early governmental views.

Initially, hearings were held in such unlikel "impartial" locations as the

University of Delaware Student Center, with the glare of attendant television lights and the disruptions of chanting students. At the height of the environmental movement, there was great distrust of industry and little understanding of its workings. At first both federal and state regulatory authorities were unable to distinguish what was reliable background information furnished by industry from critical data about points where regulatory control could and should have been imposed. An attitude existed in certain governmental officials that if only industry really wanted to solve the problems they could be quickly solved. Some felt that "enough" money could solve any problem and whatever was required should be spent.

Gradually, as government agencies were allocated money and resources and all sides gained experience and knowledge, a more sophisticated understanding of the complexity of the technical problems emerged. Likewise, each side began to gain an understanding and appreciation of the other's imperatives and objectives. As this happened, a dialogue became possible and sprang up naturally. In this climate, real progress began to be made in achieving environmental goals in a manner that was not self-destructive. Matters naturally evolved then, from a confrontational style to a more constructive and productive dialogue.

A similarity can be found between what exists today in Delaware and the methods that have evolved in Japan. Copying the Japanese style of organization and administration has, of course, recently become fashionable. Browsing through any bookstore one runs across titles such as *The Art of Japanese Management* and *Theory Z*. "How do the Japanese do it?" is a frequently asked question about environmental policy as well. The question is prompted by Japan's perceived success in managing to clean up its environment without significant adverse effects on economic growth.

A recently published work, *Environmental Law in Japan* (Gresser, Fujikura and Morishima) MIT press, 1981 provides a comprehensive analysis of Japanese environmental law and policy. It describes the structure of Japan's environmental administration and the procedure for developing and applying policy. The authors advance two general themes in explaining the Japanese system: the importance of "consensus" in policy formu-

lation and the widespread use of "administrative guidance" in enforcing it.

"Consensus" as used by the authors refers to the method by which government agencies resolve apparent policy conflicts. The authors define the second principle of the Japanese process, "administrative guidance," as the "informal, nonauthoritative process by which government seeks to induce industry's voluntary cooperation and compliance" through "negotiation, discussion, and consultation."

Is this approach pertinent to the Delaware experience? The answer is "yes." Delaware, like the rest of the nation, requires governmental direction sensitive to environmental concerns but not *insensitive* to Delaware employment patterns and economic necessities.

We in Delaware cannot afford to turn away from our recent environmental conversion. Many of our present day environmental problems first appeared, or became aggravated, in the years following World War II. Phosphate, a major pollutant of surface waters is a good example. In the thirty years from 1910 to 1940 annual phosphate output from municipal sewage increased from about 17 million pounds (calculated as phosphorus) to about 40 million pounds. Thereafter the rate of phosphate output rose rapidly, so that in the next thirty-year period, 1940 to 1970, it increased more than *sevenfold* to about 300 million pounds a year. Some other examples of increases in annual pollutant output since 1946 are nitrogen oxides from automobiles (these trigger the formation of smog), 630 per cent; tetraethyl lead from gasoline, 415 per cent; mercury from chloralkali plants, 2,100 per cent; synthetic pesticides (between 1950 and 1967 only) 270 per cent; inorganic nitrogen fertilizer (some of which leaches into surface water and pollutes it), 789 per cent; nonreturnable beer bottles, 595 per cent. Many pollutants totally absent before World War II made their environmental debut in the war years: smog (first noticed in Los Angeles in 1943), DDT (widely used for the first time in 1944), and detergents (which began to displace soap in 1946).

Certainly, if these trends had not been halted by the Clean Air and Water Acts the results would have been unacceptable for everyone, from environmentalist to industrialist.

It must be realized, however, that the self-interest of business as it was

widely perceived in the early 70's is no longer the approach of American business today. The old picture was painted in terms of the "Tragedy of the Commons." Visualize a pasture open to all. Each herdsman seeks to maximize his individual and immediate gain. Since the herdsman receives all the proceeds from the sale of an additional animal, the positive component is seen as a function of the increment of one animal. The negative component is a function of the additional overgrazing created by one more animal. However, the effects of overgrazing are not solely on the herdsman himself, but are shared by *all* herdsman. Thus, in this limited sense it may be presumed that a herdsman would conclude that the course for him to pursue would be to add another animal to his herd. And another; and another. . . . Since each herdsman will draw the same conclusion, the result must be the spoiling of the commons.

The "Tragedy of the Commons"

can be found in the form of industrial pollution. It may be true that the individual businessman's share of the cost of cleaning up wastes after their discharge into the air and water is less than the cost of his purifying those wastes before he releases them. It is, however, just as much against his self-interest to foul his own nest. This is true both for individuals and for businesses. This latter principle is all the more true in Delaware, where the community in which a business must exist is so small. Environmental concern has become an integral part of the Delaware business community's awareness; one of the goals which practically *all* U.S. business has embraced.

Just as we cannot go backward from protecting the environment, neither can we in Delaware afford to go back to the earlier governmental stance of suing first and asking questions later. As we have seen, the commons is spoiled if overgrazed, but likewise we must recognize that the

herdsmen starve if there are not enough sheep, and the herdsmen's sons and daughters will have to look elsewhere for employment as well.

Since 1973 the cost of environmental controls over water and air put in place by Delaware industry is many times the value of all of the new offices buildings in Wilmington, Dover, and Georgetown during the same period. During this time Delaware has been in compliance with all Federal ambient air standards except the standard for ozone (the standard which is most affected by automobile emissions). And, Delaware's "Water Quality Inventory" published in 1983 reports that over the past decade "great strides have been made in the reduction of pollutant loadings to Delaware waters from point sources." Yet these expenditures and environmental improvements have been accomplished largely through the cooperation of all concerned, rather than as the result of prolonged and costly court battles. □



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An Abbreviated History of the Tybouts Corner Landfill

JOSEPH W. WEIK

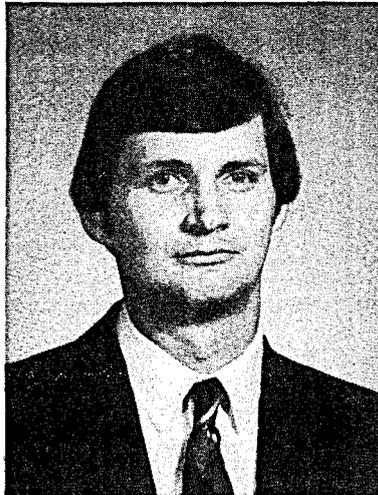
In Kurt Vonnegut, Jr.'s best-selling novel, *Breakfast of Champions*, the fictional character, Kilgore Trout, noted writer and philosopher, is asked by the Secretary General of the United Nations if he feared the future. Mr. Trout irreverently replied, "Mr. Secretary General, it is the *past* that scares the bejesus out of me." The history of the former New Castle County Sanitary Landfill at Tybouts Corner conjures similar feelings of fright and concern. Located approximately ten miles south of the City of Wilmington, the Tybouts Corner Landfill encompasses approximately seventy-five acres of land bordered by the triangular shaped intersection of U.S. Route 13 and Red Lion Road (Route 301-S). The owners of the land, Mr. and Mrs. William C. Ward, initially purchased the property back in 1962, when they acquired three adjacent parcels of land at Tybouts Corner. Before 1962, the two hundred and seventeen acres purchased by the Wards comprised an area of abandoned farm land with rich deposits of sand and gravel, which Mr. Ward planned to use in his contracting business.

In 1965 the Wards set up a wash products operation under the name of Woodlawn Sand and Gravel Company. The operation extracted sand and gravel, then washed and graded these materials for sale to other construction companies. The wash products operation required over a quarter of a million dollars in machinery, as well as the construction of four wash ponds for extracting silt from the sand and gravel.

In 1968 Mr. Ward was approached by a real estate agent who asked if the Wards were interested in selling their Tybouts Corner property. While Mr. Ward was initially interested in the sale of a part of his property, he declined to deal with the real estate agent until the agent disclosed the identity of the prospective purchaser.

At that time, Mr. Ward knew that New Castle County was looking for land to replace the County Llangollen Landfill, which was nearing capacity. When Mr. Ward was informed of the County's intention to purchase land for a landfill operation, he declined the offer of sale, fearing that a County landfill would interfere with his sand and gravel excavations.

According to a statement given by Mr. Ward, County officials threatened condemnation proceedings against him in order to use his land as the next County landfill. After consulting with his attorney about the County's threat of condemnation, Ward initially agreed to sell seventy-four acres of his land to the County for a landfill operation. The proposed sale included the land where the wash products equipment was located, and Mr. Ward still wished to continue with sand and gravel excavation. The parties reached an alternate agreement, whereby the County would purchase the land from Mr. Ward,



Our author, Joe Weik, is a life-long resident of Delaware. Joe graduated from the University of Delaware in 1974 and from Dickinson School of Law in 1978. Since that time he has been an associate in the law offices of Stanley T. Czajkowski. That office was the first to file a private cause of action for pollution damage stemming from the Tybouts Corner condition described in Joe's article. We welcome this able writer to the ranks of our contributors.

but he would still continue with his sand and gravel operation, paying royalties to the County for any sand and gravel removed from the land. An opinion by then County Attorney Clarence W. Taylor cancelled this arrangement when it was determined that the County had no authority to enter into a private royalty agreement with the Woodlawn Sand and Gravel Company. It was felt that if the County purchased the land, the only way they could sell the sand and gravel deposits would be through public bid, and that it would be illegal to enter into a private royalty arrangement between the County and Woodlawn Sand and Gravel.

Finally, the parties entered into an agreement whereby Mr. and Mrs. Ward would lease a parcel of land to the County for the landfill operation. The County engineers projected that the landfill would be in operation for approximately five years and that during this time the Wards would be paid a set sum of money for each load of garbage dumped, with a guaranteed annual minimum. On December 16, 1968 a three party lease was executed among New Castle County, Mr. and Mrs. Ward, and a newly formed corporation known as the Land Redevelopment Company. While the lease basically called for the County to lease a parcel of land from the Ward family, the Land Redevelopment Company was formed by the Ward family to actively aid the County landfill operation by furnishing labor, tools, and equipment for the purpose of handling and covering the rubbish accepted by New Castle County for deposit. This required the Land Redevelopment Company to bulldoze the garbage daily and cover it each evening with a six inch layer of soil consisting mostly of waste products from the Woodlawn Sand and Gravel Company operations. Once a particular garbage pit was completely filled, it was the responsibility of the Land Redevelopment Company to cover the filled pit with a two foot layer of soil.

Dumping at the Tybouts Corner Landfill began almost immediately following the execution of the lease. County employees were on the site at all times during the operation and worked closely with the employees of the Land Redevelopment Company. Garbage collectors franchised by the County entered the landfill by depositing tokens in a Parkoa coin machine, which opened a gate. Unlicensed collectors were charged according to the amount of garbage dumped: \$2.00 for less than two cubic yards, \$7.00 for more than two cubic yards. After garbage was dumped in the various landfill pits, Land Redevelopment Company personnel bulldozed the garbage and prepared for placing the six inch cover on the rubbish that had been deposited during the day.

During the early days of the landfill, it became apparent that the landfill's projected useful life was far less than the initial five year estimate. In July of 1969, Thomas F. White was hired by New Castle County as supervisor of refuse collection at the landfill. When Mr. White began his daily on-site duties in September of 1969, he estimated that the landfill was already one-third full. During Mr. White's tenure, he became increasingly concerned over the problem of liquid chemical wastes being deposited in the landfill. Much of what Mr. White had to say about the dumping of chemical wastes can be found in his deposition taken in June of 1981 as part of the Environmental Protection Agency law suit filed in the Delaware Federal District Court under the caption: *United States of America v. New Castle County, William C. Ward, and Stauffer Chemical Company*, Civil Action No. 80-489. According to Mr. White's testimony, chemical wastes in liquid form were delivered daily to the landfill. Two to four loads of chemicals were being shipped into the landfill each day; each load contained sixteen to twenty drums of liquid waste.

While Mr. White emphasized that he was not a chemist, it became apparent to him that these liquid wastes were dangerous and posed a hazard to the on-site employees at the landfill. On a number of occasions fifty-five gallon drums of chemicals exploded, spraying employees with their contents. On a few occasions, the employees' clothing and shoes melted upon contact with the liquid wastes. Some of the waste had an acrid odor

and some of it actually sizzled like burning acid when it was dumped on the landfill. On a few occasions, sealed fifty-five gallon drums exploded when they came in contact with the blades of the bulldozers used to spread out the garbage. When this problem was brought to the attention of the County officials, it was decided to alleviate the problem by having anyone hauling chemical wastes in fifty-five gallon drums remove the bungs or caps from the drums before depositing them in the landfill. This practice resulted in a series of chemical fires which, according to Thomas F. White, occurred almost monthly. The fires "looked like sparklers within the fires" and water would usually intensify the fires. While the County kept firefighting equipment at the landfill site, it became necessary, at times, to call in local firefighting equipment to help with these chemical fires.

According to Answers to Interrogatories filed in the E.P.A. action in Federal District Court, the months of August and September of 1970 saw a dramatic increase in incidents regarding chemical waste fires. On August 5, 1970 an Atlas Chemical truck that came into the landfill was already on fire. On August 30, 1970 there were two large fires at the landfill which required the services of the Delaware City Fire Department. The fire department was initially called in at 6:00 P.M., but had to be recalled at midnight that night. On September 9, 1970 an undrained drum popped open, squirting chemical fluids on an equipment operator. On September 12, 1970 a load of acid was dumped by a Stanley Twardus dump truck and the acid caught fire the next day. Although the fire was extinguished, the acid continued to emit fumes through September 14.

At the same time, another dump truck came in and deposited undrained drums in the landfill, which caused a flash fire requiring the presence of both the Delaware City and Christiana Fire Companies. A few days later, on September 18, 1970, another drum from the Atlas Chemical Company caught fire and "blew" as the driver of the dump truck was draining it into the landfill.

The problem of dumping liquid chemical wastes at the Tybouts Corner Landfill was occasionally brought to the attention of the New Castle County Director of Public Works, George W. Dutcher, P.E. According to the 1968 lease agreement granting

the County the right to use the Ward property for the landfill, the Director of Public Works was responsible for its proper operation. When protests were made to Mr. Dutcher about the dumping of chemical wastes, his standard reply was "Don't make a big thing out of nothing." Although the dumping of hazardous wastes in the County landfill was expressly prohibited by State law, County on-site personnel took their directions from Mr. Dutcher and routinely allowed liquid chemical wastes to be brought into the landfill from local chemical companies such as Diamond-Shamrock, Stauffer Chemical, and Atlas. When the landfill reached capacity in 1971, it was estimated that more than sixteen thousand tons of liquid chemical wastes remained there. Some estimates have put that figure at over twenty-five thousand tons.

During the two year operation of the landfill, there was little or no public knowledge of what was going on. Indeed, the only newsworthy event regarding the actual operation of the landfill occurred on January 27, 1971, when winds, gusting from thirty to sixty miles per hour, blew down the restraining fences around the landfill, blowing tons of paper and debris onto adjacent properties and forcing the temporary closing of U.S. Route 13.

Even after the landfill closed in 1971, there was little public awareness of the potential problems until a 1979-1980 study was released by U.S. Congressman Bob Eckhardt (Tex.-D). The Eckhardt survey was undertaken to locate the one hundred worst major industrial dumping sites throughout the United States. It was information obtained from the Eckhardt survey that prompted the filing of the E.P.A. law suit in the Delaware Federal District Court against the owners, operators, and at least one polluter of the Tybouts Corner Landfill. Studies undertaken by the Environmental Protection Agency since the Eckhardt survey detected a number of cancer causing chemicals in ground water samples taken on or near the Tybouts Corner Landfill. The list includes such toxic substances as vinyl chloride, benzene, and phenol. The presence of these toxic substances has posed a threat to a number of nearby water sources. A small tributary stream of Red Lion Creek, known as Pigeon Run, forms the western boundary of the landfill. After Pigeon Run empties into Red Lion Creek, the tidal areas of Red

Lion Creek have direct access to the Delaware River. Of even greater concern is the close proximity of two underground water sources, or aquifers, which are located directly beneath the landfill. Approximately forty feet beneath the landfill lies the Columbia Aquifer, which flows in a west-southwest direction from the landfill and is a source of well water for many of the area residents. There is also, at an approximate four hundred foot depth, the large Potomac Aquifer, which flows in a southerly direction. According to an article written in the August 1980 issue of *Delaware Today* the Potomac Aquifer currently provides drinking water to approximately five hundred thousand New Castle County residents, and is used to supply the Wilmington, Newport, Suburban, and Artesian Water Companies.

In October of 1981, New Castle County residents were shocked by front page headlines announcing that the Federal Environmental Protection Agency had listed the Tybouts Corner Landfill as one of the ten worst hazardous waste sites in the country. In addition, the E.P.A. study also listed the Delaware Sand

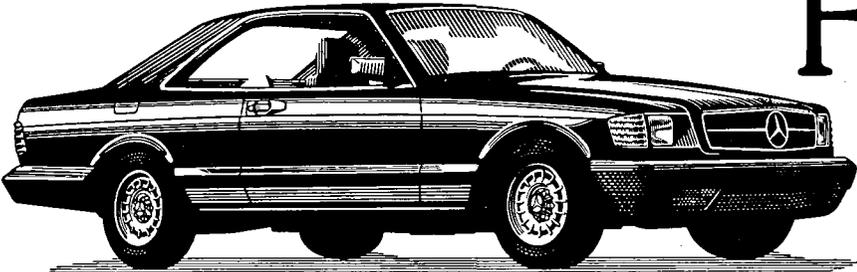
and Gravel Company Landfill on Grantham Lane in New Castle, Delaware, as well as the former County landfill at Llangollen, within the top twenty worst hazardous waste sites. These findings were particularly significant in light of the fact that the infamous Love Canal waste site in Niagara Falls, New York had failed to make the top twenty. While the Tybouts Corner Landfill had finally received the notoriety and attention it so justly deserved, little could be done regarding a prompt solution to the problem. Even at this writing, State and Federal environmental officials do not have sufficient facts to determine what, if anything, is to be done with the landfill. While the E.P.A. has conducted extensive tests of the ground water surrounding the landfill, they have only recently started an on-site investigation to determine exactly what is in the landfill and what to do about the chemicals they already know are there.

On March 24, 1983 Federal Environmental Protection Agency officials called a public meeting at the Gunning Bedford High School, near Delaware City, Delaware, to explain to local residents what action will be

taken regarding the landfill. Federal E.P.A. officials, along with the State Department of Natural Resources, are currently working with a \$755,000.00 Superfund allocation to conduct an extensive on-site study. It is estimated that this will take twelve to sixteen months and will require well-drilling in the area to study the extent of ground water pollution. The results of the study will be used to formulate remedial action, which could entail a number of possibilities, including digging up the landfill or capping it with a waterproof cover to retard further leaching of the underground chemicals into the ground water supply.

Although new federal environmental regulations make it more difficult to repeat what has happened at the Tybouts Corner Landfill, these new regulations can do nothing to remedy the harm which has already taken place. As of now, we can only wait and see what further harm the landfill can cause, and whether there is anything that anyone can do about it. While the future of the landfill holds many uncertainties, certainly the past is enough to frighten all who are, or could be, affected by the landfill. □

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Natural Today, Exploited Tomorrow

LORRAINE M. FLEMING

Sloping, rocky stream valleys forested in varied hardwood trees, flatlands with tall pines, acres of cordgrass dissected by tidal creeks, sandy beaches and dunelands, are natural landscapes familiar to Delawareans today. Will such landscapes still be familiar a century from now? The best guess is that they will become infrequent sights.



Lorraine Fleming is Research Coordinator for the Delaware Nature Education Society (DNES), a private, non-profit, statewide membership organization dedicated to environmental education at all levels and the preservation of representative natural areas. Lorraine is the author of *Delaware's Outstanding Natural Areas and Their Preservation*, reviewed elsewhere in these pages. She has lectured extensively, and has published several articles on this subject. She has received degrees from Iowa State University and the University of Delaware. She currently serves on several advisory boards including the Governor's Advisory Council on Environmental Control.

Delaware, a small state in expanse, has been endowed with a natural heritage of considerable magnitude. Early European explorers who sailed up the Delaware River described its bounty in lavish terms.

Despite more than three centuries of human alteration of our land and water base, an exceptional legacy of natural treasures remains. A statewide inventory conducted by the Delaware Nature Education Society (DNES) in 1973-1976 identified 101 rare or unique places called *outstanding natural areas* for lack of a better term. The study, designed by Norman Wilder, DNES Executive Director, involved 25 natural science experts and was supported by both private and public funds.

The inventory contains the rare remnants of old growth woodlands, the kind that the first European settlers saw when they came to Delaware; it includes unspoiled stream corridors and the finest wetlands; it includes ancient geologic formations and sites with evidence of Earth's ongoing processes, and the prime locations of artifacts left by prehistoric peoples. These places are either little disturbed by man's activities or essentially healed of that disturbance. Altogether they amount to a little more than three per cent of the state's total area. From time to time the inventory may be expanded with the addition of sites for rare plants and other natural features not otherwise listed.

In the general public perception there is a tendency to equate outstanding natural areas with other natural looking open space such as public parkland and wildlife areas. Adding further confusion is the fact that some state and county parks en-

compass natural areas; for example, some dunes, woodlands, marshes, and an archaeological complex within Cape Henlopen State Park comprise a natural area. Similarly natural areas may occur within state wildlife areas or federal refuges. Areas defined at Woodland Beach Wildlife Area and Bombay Hook Refuge are examples.

Natural areas have intrinsic irreplaceable values. They are recreational havens, places where people hike, explore nature, fish, swim, hunt, canoe, and take photographs. They are outdoor laboratories and classrooms for research and education, and function as scientific baselines against which manmade changes can be measured. Most important, they are the vital habitats of endangered plant and animal species.

Outstanding natural areas and the elements of Delaware's natural diversity—all of the different plants and animals that are indigenous to the state—are a public trust resource. What are the chances that this trust will be passed on, largely intact, to future generations of Delawareans? Exemplary public-private cooperative efforts, some sound state laws, and the availability of an array of legal techniques, innovative strategies and progressive programs provide hope but no assurances.

Delaware's earliest natural lands preservation predates her statehood. In 1683 William Penn granted to Edmund Warner all of the lands northeast of Lewes Creek on the condition that the "timber, feed, and marshes forever lie in common" for the use of the inhabitants of the town of Lewes and Sussex County. As a result of a citizen suit brought in 1973 contending that the terms of the original grant had been violated, the state is

grant had been violated, the state is empowered to enforce the charitable trust and now holds title to 900 acres of the Warner Grant Lands including Beach Plum Island and Cape Henlopen natural areas.

Early in this century William P. Bancroft, realizing that the population of the City of Wilmington, where his mills were located, would one day expand northward, "gathered up" more than 750 acres along the east side of Brandywine Creek to be reserved for future parkland and housing communities. Subsequently managed by the Woodlawn Trustees, these lands today reflect the trustees' excellent stewardship. From the Bancroft holdings have come natural areas-parklands of exceptional quality including Alapocas Woods Park, and Mt. Lebanon Run Park. In 1981 some 350 acres containing parts of three natural areas were transferred with a management fund to the state for incorporation into Brandywine Creek State Park. The Woodlawn Trustees plan to develop the upland portions of their remaining acreage while preserving wooded slopes and stream corridors.

Many members of the duPont family have shared a concern for Delaware's natural heritage. Large estates in continuous family ownership for several generations have resulted in natural areas protected by tradition, particularly in the valleys of the Brandywine, Red Clay, and White Clay creeks.

Following the completion of the statewide inventory of outstanding natural areas, DNES held a preservation symposium in 1977 to provide a forum for information exchange with other state and national conservation and preservation organizations. The resulting consensus, summarized by volunteer attorney Michael Parkowski, urged that state policy concerning natural areas be formalized. In response the Natural Areas Preservation Act, Title 7, Delaware Code, Chapter 72, §7301-7312 was drafted by the DNES and managed in the General Assembly by Senator Jacob Zimmerman.

Enacted in 1978, the law provides a vehicle for bringing the 28 areas in diverse public ownerships under a singular management philosophy. A state System of Nature Preserves was created and an Office of Nature Preserves designated within the Department of Natural Resources and Environmental Control (DNREC). This office articulates the state's

policy to acquire and preserve areas of unusual natural significance and establishes a register of natural areas. Qualified natural areas can become nature preserves through the legal process of dedication—the execution of a conservation easement with DNREC or equivalent protection. The eight member Natural Areas Advisory Council, which assists the Office of Nature Preserves, is chaired by Norman Wilder.

Regulations and guidelines for registration and dedication of natural areas have been developed, and 53 properties have been registered, 15 publicly owned, 38 privately owned. Two nature preserves have been created by deed restriction, Freshwater Marsh and Tulip-tree Woods, both at Brandywine Creek State Park. Two more dedications are pending, including one area owned by Delaware Wild Lands. A small natural area near Seaford will be given to the state soon by its owner, retired Director of the Indiana Division of Nature Preserves, William Barnes. While good progress has been made, the State Office of Nature Preserves has been hampered by lack of operating funds.

The State Office of Nature Preserves is empowered to acquire nature preserves "by gift, devise, purchase, exchange, or any other method of acquiring real property or any estate, interest, or right therein . . ." in short by any mechanism except eminent domain, which is explicitly excluded. The traditional public acquisition mode, purchase, has become more difficult in recent years with the dwindling of funds. The availability of Land and Water Conservation Fund (LWCF) monies, the principal source of federal matching funds to state and local governments for purchase of recreational and natural lands, has been annually uncertain. LWCF monies are derived exclusively from Outer Continental Shelf development revenues. Whenever a purchase is made at less than fair market value, the value of the donation can be used toward the state or local share of the required 50:50 match.

From 1980 to the present New Castle County government has assembled some 653 acres of open lands encompassing a prime natural area in the Middle Run Valley, valued at \$4.25 million, with the expenditure of only \$400,000 from county tax revenues. This superlative accomplishment was made possible by innova-

tive strategies involving LWCF monies, partial donations, and even a land exchange. Much credit is due the county negotiating team composed of individuals from the Planning, Parks and Recreation, and Legal departments, and to successive County Executives and County Council members who have maintained a staunch commitment to preserving natural areas.

The Natural Areas Preservation Act urges state agencies, municipalities, counties, schools, colleges, and universities to dedicate natural areas within their holdings, but the law specifies that any action taken will be strictly voluntary. Nevertheless, it is expected that most publicly owned areas will eventually become nature preserves.

Of greater concern are the large majority of natural areas (more than 60%) in individual private ownerships. The law merely permits the State Office of Nature Preserves to extend technical assistance and announces that such areas can be accepted into the state system. DNES has urged individuals and private organizations to register their natural area properties.

The preservation of privately owned areas with outstanding natural values is often most successfully executed by another private entity, usually a non-profit corporation, such as a land trust or conservancy.

Delaware Wild Lands (DWL), the first statewide conservation land trust, was created to support the premise that a balance must be maintained between land development and land preservation. Founded by the late Edmund H. (Ted) Harvey in 1961, Wild Lands has preserved some 22,000 acres of natural lands, primarily wetlands. These include such outstanding natural areas as Great Cypress, or Burnt, Swamp, which contains the closest thing to a wilderness in the state, Trussum Pond, and parts of James Branch, with concentrations of picturesque old Bald Cypress, Angola Neck, Appoquinimink-Blackbird Marshes, and its most recent acquisition, the J. Gordon Armstrong Heronry, where more than 80 pairs of Great Blue Herons nest each spring, one of the largest heronries in the United States. More than 7,000 acres were purchased for later addition to state wildlife areas. Suitable restrictions were placed on the parcel deeds before transfer to the state.

DWL accepts donations of land in fee-title, either outright, with a reserved life estate, or as bequests, and makes purchases at fair market value, or less with a partial donation. All but the conventional market sale have some income tax and estate tax benefits for the donor-seller. DWL is now headed by Ted Harvey's son Holger (Rusty). Its ongoing exemplary preservation achievements would not be possible without the deep dedication of voluntary board members. Through the years the list has included such notable Delaware attorneys as the late William Potter, Robert Tunnell, Eugene Bayard, and Edward Cooch, Jr.

The conservation easement, or conservation restriction, has had increased acceptance during the last decade as a tool for preserving land in private ownership. A conservation easement is a legally binding agreement between the landowner and a qualified conservation organization or government agency. It contains specific provisions designed to keep the land generally in its condition at the time of easement execution. It "runs with the land" and is binding on all future landowners. It is registered in county deed records. The easement document, individually tailored, can permit compatible uses while delineating protective prohibitions. The landowner otherwise reserves all the prerogatives of a private owner.

The value of an easement in perpetuity donated to an organization having non-profit, tax exempt, public charity status and appropriate chartered principles, qualifies as a charitable contribution and may accordingly be deducted from the donor's federal income tax (Internal Revenue Code, §170) and Delaware income tax. The amount of the charitable deduction is usually computed as the difference between the fair market values of the eased parcel before and after attachment of restrictions. It must be established by a well-documented professional appraisal. The recipient organization has a legal obligation to monitor the easement and enforce its terms, even by litigation as a last resort.

An easement program was begun in 1969 by the Brandywine Conservancy of Chadds Ford, Pennsylvania, to protect the water resources, wildlife habitats, and aesthetic amenities of the Brandywine Creek watershed. For 13 years the late Bernard Hessler's

generous legal services were key to the overwhelming success of the program. The Conservancy currently holds 126 easements on 4,735 acres of land, including several easements in Delaware.*

The Christina Conservancy, founded in 1981 by four people, including attorney Gregory Inskip, proposes to reclaim the Christina River as a vital, usable community resource. Its charter, modelled after that of the Brandywine Conservancy, seeks protection for the stream corridor in a permanent, natural condition. Edward Cooch is current president of the neophyte organization.

In 1980 Section 170 of the Internal Revenue Code was amended to make the deductibility of conservation easements permanent (previously authorization was to a specific date); but an easement must meet at least one of three tests to determine whether it is "exclusively for conservation purposes." Conservation purposes, in the language of the law, means "the preservation of land areas for outdoor recreation by, or the education of, the general public; the protection of a relatively natural habitat of fish, wildlife, or plants, or similar ecosystems; the preservation of open space (including farmland and forest land) where such preservation is for the scenic enjoyment of the general public, or pursuant to a clearly delineated Federal, State or local governmental conservation policy; and will yield a significant public benefit" The failure of the IRS to promptly draft regulations pursuant to the amendments, coupled with a number of IRS challenges of easement donor claims, led quickly to a pronounced reluctance on the part of most private organizations to accept easements.

The long-awaited draft regulations were finally issued this May. The reviews have been distinctly mixed from conservation trusts around the nation. The bright spot is that there is nothing in them to suggest that a conservation easement on a property in Delaware's natural areas inventory would ever be challenged as inappropriate. On the other hand, with regard to easement valuation, or deduction claimed, the draft regulations have done nothing to satisfy the need for appraisal standards and guidelines. It seems appropriate, however,

* See Michael Ledyard's discussion of this Conservancy, elsewhere in these pages.

that the appraisal profession, in conjunction with conservation trusts, should assume some obligation for proposing useful guidelines.

In 1978, conservation easements and historic preservation easements were recognized by Delaware statute (Title 7, Delaware Code, Chapter 68, Subchapter II, §6811-6815) as valuable interests in property, and their enforceability was guaranteed. The law contains examples of restrictions appropriate "to retain land or water areas predominantly in their natural, scenic, recreational or open condition or in agricultural, farming, forest or open space use."

A certificate of acceptance issued by "the secretary or director of the [state] agency or department receiving the easement or having jurisdiction over the subject matter of the easement" must be attached to the easement document before it can be registered with the county recorder of deeds. This mandatory state review and approval should give donors added protection against IRS challenges.

Easements have been used to protect prime forest- and farm-lands as well as outstanding natural areas in Delaware. However, at this time the prospects for protecting additional natural areas by conservation easements appear limited because the financial incentives are much greater for high income donors, and many areas are owned by people of modest means.

In addition to income tax incentives, a conservation easement may permit a real property tax reduction, but not necessarily. A donor may make a written request for reassessment to the county of the eased property's location. The easement also reduces the value of the donor's estate at the time of death, and many easements are conveyed by will.

Joseph Geogheghan and Eugene Bayard, both lawyers, have served as voluntary instructors, unraveling the complexities of conservation easements for natural area landowners in DNES workshops. Very few attorneys, however have had firsthand experience with conservation easements. Trust officers and tax accountants also need to be better informed.

Citizen groups, including primarily the Coalition for Natural Stream Valleys and Citizens for White Clay Creek, have been especially effective in stimulating public acquisition for preservation in the White Clay Valley

north of Newark. Spearheaded by the United Auto Workers' Community Action Program, these groups have promoted seven land purchases totaling 189+ acres for incorporation into the Walter S. Carpenter, Jr. State Park. Transfer of the DuPont Company holdings along the creek to the public domain is a major goal of Citizens for White Clay Creek. The organization is composed of some 90 individuals, including a long list of elected officials headed by Delaware's U.S. Senators and Representative. It also has an active concern for the natural resources of the White Clay Creek's tributaries—Middle Run, Pike Creek, Mill Creek, and Red Clay Creek.

The DNES Natural Areas Preservation program, in addition to conducting a major landowner education program, has organized response by other private organizations and public agencies to every protection need. Its acquisition program is a kind of last line of defense for threatened natural areas. DNES accepts gifts of conservation easements and reinforces those of other organizations, as a secondary recipient, should the primary donee cease to operate or significantly shift purpose. It will accept gifts of land, and recognizing that many small parcels in private ownership will likely be lost otherwise, it is prepared to purchase land tracts by conducting broad-based funding campaigns as a last resort.

Since *Delaware's Outstanding Natural Areas and Their Preservation* was published by DNES in 1978, five

of the described areas have been lost to competing land uses or poor land management. The threats to natural areas are explained in the DNES film, "Countdown for Natural Areas," while values of the areas are stressed. The film exhorts the viewer to become informed and involved, to know and defend the state's natural areas, and to support private and public groups working to save them. In order to build an influential public constituency the film has been widely shown throughout the state to civic and service organizations.

There is reason for fresh optimism. A brand new law has provided a novel opportunity for Delawareans to make a voluntary contribution for protection of Delaware's nongame wildlife, including endangered species, and their habitats, and for the preservation of natural areas. Beginning in 1984 Delaware taxpayers may direct a contribution on their state income tax form, by a donation out of a refund due or an addition to the amount due the state. Interested individuals may contribute any time to the special fund established. The monies will be divided between two divisions of the Department of Natural Resources and Environmental Control. Vigorous promotion will be the key to successful collections, and such slogans as: Do Something Wild!, Make a Wild Gift!, and Return a Gift to Nature! will become familiar during the next few months.

Title 7, Delaware Code, Chapter 2, §201-204, the voluntary contribution legislation, drafted by DNES and the Delaware Audubon Society, sup-

ported by the Delaware Wildlife Federation, and managed in the General Assembly by Representative Harry Terry, was passed without a dissenting vote. Delaware has joined 27 other states with natural resource "check-offs," so dubbed because donors in most states check a box on the tax form to make their contributions.

Historically fish and wildlife conservation programs have stressed recreationally and commercially important species. As a result, these programs are well supported from hunting and fishing license revenues and federal funds from excise taxes on hunting and fishing equipment. In recent years diminishing populations of many native animal and plant species has led to widespread recognition of the need to protect and enhance all of our natural diversity. The critical element in protective programs is habitat, or natural areas, preservation.

Delaware's splendid natural heritage, owed in large part to the visionary commitment and dedicated service of a handful of individuals and a few organizations, now must be championed widely by large numbers of people. As pressures mount to divert remaining natural areas to other uses in satisfying short term goals, increased understanding by landowners and the support of private and public agencies, legislators, and a host of concerned citizens can be instrumental in ensuring far-sighted decisions for preservation.

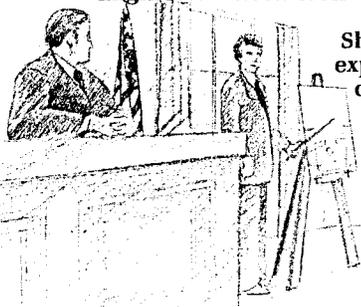
Remember to make a Wild Gift! Delaware's natural diversity *can* be saved for the future. □

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Outfoxing The Polluters

MICHAEL M. LEDYARD



Mention the Village of Chadds Ford to just about anyone in the Delaware Valley, and the listener is sure to conjure up images of an artsy hamlet on the Brandywine best known as the home town of three generations of Wyeth painters. Chadds Ford, Pennsylvania is also the home of the Brandywine Conservancy, Inc., a non-profit organization formed under the laws of Delaware(!) for the purpose of addressing environmental planning issues in both Pennsylvania and Delaware. To date, the Conservancy has applied its efforts within the Brandywine Valley toward achieving three major goals: the protection of the Brandywine River and its tributaries, the preservation of land area affecting water quality and stream flows, and the preservation of significant historic sites. Although these goals seem ambitious, the Conservancy's attitude toward protection of the environment is realistic. The Conservancy stresses conservation rather than preservation. Unlike many other environmental groups, it has chosen to work directly with private land owners, instead of concentrating on governmental action.

The legal mechanism used most often by the Conservancy to protect land is the conservation easement. A

conservation easement is an agreement between a landowner and the Conservancy whereby the landowner agrees to certain restrictions on his

property so as to preclude uses inconsistent with conservation, and the Conservancy assumes a monitoring function to assure that the restrictions are not violated. In keeping with this realistic approach, the Conservancy works with each individual landowner to the extent possible to tailor the restrictions of each easement to the particular features of a property and the needs and desires of the property owner, while at the same time making sure that the goals of the Conservancy are furthered. A typical easement would establish the number and locations of future buildings on the property and would prohibit the quarrying of rocks, minerals or top soil, the tilling or development on slopes in excess of 15%, the cutting of trees except in accordance with an approved woodlot management plan, and the erecting of billboards or other advertising signs.

Since its formation in 1967, the Conservancy has been granted in perpetuity 133 conservation easements representing nearly 5,000 acres of land. And how, you ask, has the Conservancy been able to manage this? How has it convinced so many landowners to restrict the uses of their property (and thereby reduce its value) in a day of skyrocketing rural land values, pushed ever higher by those



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This article gives rise to charming images of pink-coated rustic patricians on horseback, smacking their lips over stirrup cups and chortling about their charitable tax deductions. More seriously, it presents a very heartening account of enlightened self-interest serving both beauty and utility, when nabobs gain by giving, and we, too, gain. Crazy like a fox!

sprawling developments which have transformed so many farms into upper middle class Levittowns? There is no question that the goals of the Conservancy are considered admirable by almost every resident of the Brandywine Valley, but it is one thing to voice support for a conservation program and quite another to voluntarily reduce the value of your property by as much as 50% in support of that program, especially when the only land you are preserving is your own and totally in your control. Ironically, the key to the success of the Conservancy's easement program is this very decrease in value which results from the granting of an easement.

Granting a conservation easement to the Conservancy is deemed by the Internal Revenue Service to be a charitable contribution, and the value of that contribution may be deducted from the income of a grantor under Section 170 of the Internal Revenue Code. To determine the value of a conservation easement, the property of a grantor is valued by an appraiser both before and after he grants an easement. The reduction in value of the property attributed to the granting of the easement furnishes the measure of the claimed deduction: the charitable contribution is equal to that dollar amount. Accordingly, many landowners have decided that the decrease in a grantor's property value as a result of restricting its use for perpetuity is more than offset by immediate tax advantages to the grantor and the ability of the grantor to continue to use, sell or transfer the land, subject to the restrictions imposed by the easement.

Stimulated by the past successes of its easement program, the Conservancy has recently undertaken a titanic task: the preservation of over 5,000 acres of rolling countryside presently owned by the Buck and Doe Run Valley Farm, a division of the world famous King Ranch of Texas. Located in the heart of fox hunting country just outside Unionville, Pennsylvania, the Buck and Doe Run Valley Farm is more than just unspoiled countryside. The Farm encompasses the vast majority of the watersheds of the Buck Run and Doe Run, two near virgin streams which flow into the Brandywine River, which, in turn, is a primary source of potable water for the City of Wilmington, Delaware and a secondary source for northern New Castle County.

The importance of the Buck Run and Doe Run streams to the water quality of the Brandywine was recognized at the turn of the century by Lammot duPont, who forecast in the early 1900s that the water of the lower Brandywine would become so increasingly polluted that the city of Wilmington would eventually be forced to obtain its water from uncontaminated upstream sources. No idle soothsayer, Mr. duPont initiated acquisition of the Buck and Doe Run Valley and neighboring lands in 1919. Mr. duPont's planned alternative to doomsday was to maintain the watersheds for the Buck Run and Doe Run in their natural states and to preserve the water quality of those streams. Mr. duPont, foreseeing the time when the water quality of the lower Brandywine would reach contamination levels, planned to construct a reservoir in the Buck and Doe Run Valley and to pipe clean water directly to the City of Wilmington. Fortunately, the deterioration of water quality in the Brandywine did not proceed as quickly as Mr. duPont had forecast. In 1944 he decided to sell the Farm.

Mr. duPont's policy of maintaining Buck and Doe Run Valley Farm in its natural state had benefited others besides the City of Wilmington. Indeed, the natural cover of the Farm contributed as much to the preservation of wild game as it did to the water quality of the Brandywine. In particular, the abundance of wooded coverts and rolling hills of the farm were ideally suited to that noblest of sports, fox hunting. Alarmed by the possibility of the sale of the Farm to a purchaser unsympathetic to their cause, fox hunters immediately took up the pursuit of a buyer who had his priorities straight and who understood that, in the great scheme of things, nothing was more important than the chase of Old Wiley. The fox hunters' (and Wilmington's) prayers were answered when neighboring landowner J. Plunkett Stewart, M.F.H. (Master of Fox Hounds, for those of you not familiar with Tom Jones or Blandings Castle) convinced Robert J. Kleberg, Jr., majority stockholder and president of King Ranch, Inc. of Kingsville, Texas that Mr. duPont's Buck and Doe Run Valley Farm would make an ideal site for fattening his Santa Gertrudis steers for eastern markets. The sale of the Farm to the King Ranch took place in 1946, and it

was soon linked to the Kingsville ranch by a network of private and public railroads. By the time of Mr. Kleberg's death in 1974, however, increased costs of doing business, due largely to the termination of cattle shipping operations by the railroads, spelled the end of Buck and Doe Run Valley Farm as an economically practicable division of the King Ranch. An attempt to improve the balance sheet by switching from a fattening operation to a breeding headquarters proved unsuccessful, and by early 1983 Unionville was abuzz with rumors that the Buck and Doe Run Farm was on the market again.

This time, the fox hunters were not alone in their worry that the farm would be sold to real estate developers. The Brandywine Conservancy had developed a growing interest in the Buck and Doe Run Valley since 1972, the year in which it began its three-year water quality study of the Brandywine River system. The results of that study had proven Lammot duPont correct on two scores: the water produced by the Buck and Doe watershed is of near pristine quality, and the water of the Brandywine River, in general, is becoming increasingly contaminated. Perhaps the most significant aspect of the study, however, is that it demonstrated that the high quality water produced by the Buck and Doe Run Valley watersheds materially improves the quality of the Brandywine River by diluting the contaminates downstream. Subsequent to the completion of the study, the Conservancy proposed the idea of various conservation easements to the King Ranch in order to preserve and protect the water quality of the Buck Run and Doe Run streams. Unfortunately, the tax advantages which would accrue to the King Ranch as a result of the donation of the proposed easements were deemed inadequate by King Ranch management, and the Conservancy's proposals were rejected. Recognizing that the sale and subsequent development of the Buck and Doe Run Valley Farm would forever frustrate its goal of protecting this precious watershed, the Conservancy took a bold step and emulated Lammot duPont's action of some 60 years before. On April 1 of this year it obtained a six-month option to buy some 5,300 contiguous acres of the Farm. Unlike Lammot duPont, however, the Conservancy was not, and is not, sufficiently well-heeled to purchase the land for its own

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account. Instead, the Conservancy negotiated the option in order to buy enough time to assemble a group of conservation-minded purchasers for the land. After extensive discussions with its counsel, the Conservancy determined that the purchase of the Farm lands might best be accomplished by means of a limited partnership in which the prospective land purchasers would become limited partners. The limited partnership would acquire the farm directly from the King Ranch, would impose conservation easements designed to protect the delicate quality of the watershed, and would subsequently distribute certain parcels of the land acquired to limited partners as a return on their capital contributions. It would sell to third parties whatever land was not allocated to the limited partners. The limited partnership device was chosen because, after protecting the watershed through conservation easements before any part of it was distributed out to limited partners and third parties, it would allow the benefits of any charitable deductions accruing to the partnership through the conservation easements to pass to the limited partners.

The Conservancy's role in connection with the proposed acquisition of the Buck and Doe Run Valley Farm is that of promoter. At its own expense, the Conservancy has completed extensive environmental studies of the Farm, has developed conservation easements, and has provided the legal backup necessary to form the proposed limited partnership and to carry out the transaction.

The careful reader will immediately note the absence of one critical element, *i.e.* the investors. Once again, Unionville foxhunters and horsemen have rallied to preserve the Buck and Doe Run Valley Farm. The Conservancy has already organized a substantial group of potential investors, consisting primarily of avid horse people dedicated to the preservation of open countryside and fox hunting, who are interested in becoming members of the proposed limited partnership. As of this date, price negotiations have already begun between the proposed limited partnership and the King Ranch. When the smoke clears, it is hoped that Mr. Stewart's Cheshire Foxhounds will once again be guaranteed free rein over the Buck and Doe Run Valley Farm, and the City of Wilmington will continue to have clean water for years to come. □

Beach Erosion Along the Coast of Delaware - Regulation and Control

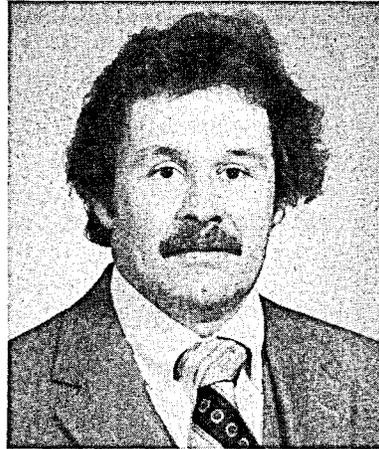
F. MICHAEL PARKOWSKI

The coastal areas along the Delaware Bay and Atlantic Ocean in the State of Delaware are primary recreational assets, which contribute significantly to the overall economy of the State. Along the Atlantic coast there are approximately 24 miles of ocean front, of which 18 miles is owned by the State. The remaining privately held areas have been, and will continue to be, subject to heavy development. It has been estimated that approximately 22 million people reside within a one day driving distance to Delaware's coastal areas and that more than 200 million dollars a year is spent on travel and related activities involving these recreational areas. Given the importance of the coastal recreational resource, the State and local governments have a vested interest in managing and protecting the resource for future generations. However, the protection of Delaware's coast line has proven to be a difficult task which has been undertaken with limited overall success, and which has posed numerous socio-economic issues to policy makers.

THE FRAGILE COASTAL ENVIRONMENT

The Delmarva Peninsula has a problem: the sea is rising and the land mass is sinking. Although this phenomenon does not rise to the level of Chicken Little immediacy, the persistency of the situation is evident even in the short term. Since the peak of the last ice age 12,000 to 14,000 years ago, the ocean has steadily risen. At that time the Delaware coast was near the outer edge of the Atlantic continental shelf — 80 to 100 miles east of the present Delaware coastal area. The Dela-

ware Bay as we know it was a river which flowed through a valley and experienced a vertical drop of approxi-



F. Michael Parkowski is the senior partner in the Dover firm of Parkowski, Noble & Guerke. He received his undergraduate degree in Civil Engineering from Villanova University in 1968. While attending Temple University Law School he worked with the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency-Region III in Philadelphia. Upon graduation from law school in 1973, he left his position as Deputy Director for Enforcement at EPA to serve as a Deputy Attorney General and counsel to the Delaware Department of Natural Resources and Environmental Control. During this tenure (1973 to 1975) he participated in drafting environmental legislation and regulations. Mike has been in private practice since 1975. He is a past Chairman of the Administrative Law Committee of the Delaware State Bar Association, and is currently President of the Kent County Bar Association.

Mike wishes to acknowledge with thanks, the technical background for this article, provided by Robert D. Henry, geohydrologist and administrator of the Beach Erosion Control program for the Delaware Department of Natural Resources and Environmental Control.

mately 440 feet to the point where it joined the ocean. As temperatures rose, the ice covering most of North America began to melt with a resulting rise in the sea level. Currently the rate of increase in sea level is estimated at 5-6 inches per century. In addition to the rising of the sea, the Delmarva Peninsula land mass is subsiding or sinking. It has been estimated that the rate of subsidence is 2-3 inches a century.¹

A more vivid demonstration of shoreline recession is recent storm exposure of tree trunks between the low and high water marks on the ocean front south of Dewey Beach. The trunks are remnants of a pine forest of 250-350 years ago, located well inland of the then coastline. Measurements taken in the Bombay Hook area along the Delaware Bay have shown landward shoreline movement of approximately a half mile in less than 20 years— an occurrence repeatedly confirmed along the entire coastal area through survey updates and title searches.

The rise in the sea level and subsidence in the land mass, coupled with the dynamic wave activity of the ocean, has caused serious erosion along the Delaware coast, at a rate of 3-10 feet a year at some locations. Although erosion in some areas is offset by land buildup in others, the beach has shifted in a northerly direction as a result of littoral drift (the movement of sand along the beach). As the combined process of erosion, rising seas, and land subsidence progresses, the net effect is a landward movement of the beach front.

To combat the forces of erosion, nature has provided a natural barrier of sand dunes. Stabilized by root

structures, the most important of which are dune grasses, the dunes buffer the effect of high tide and storms. In areas where sand beaches and dunes do not exist, and silt and clay soil layers serve as the shore line, a major portion of the Delaware Bay, erosion is greatest. It has been predicted that if the rate of sea level rise and subsidence continues over the next 5,000 - 10,000 years the Delmarva Peninsula will become a series of islands — perhaps not a matter of immediate concern to the real estate community, but dramatic warning of a long term trend.

BEACH PROTECTION MEASURES

In order to deal with the forces of nature a number of measures can be undertaken. One approach is to install structures such as groins, jetties, and breakwaters, which alter the pattern of erosion, and bulkheads and sea walls used to deflect wave action. There are other measures such as beach nourishment or the placement and replacement of sand, and repair and preservation of the natural dune barrier system by fencing, planting, dune repairs, and control of access over dunes to beaches.

The State of Delaware has fought beach erosion since 1915. At that time the only ocean front resort in the State was Rehoboth. In 1920 a Special Commission of legislators was formed to study ocean front conditions. The Commission's principal recommendation was for limited construction and maintenance of groins at Rehoboth Beach. In 1927 the Delaware Waterfront Commission was established to deal with beach and shore erosion statewide. This commission engaged in very little activity, and in 1934 it was replaced by the State Highway Department. From 1934 to 1972 the Highway Department played the lead role in seeking appropriations and managing erosion control projects. Between 1934 and 1957 the Highway Department received 24 appropriations for ocean and bay front projects. In 1957 the Highway Department acquired limited administrative powers to seek criminal sanctions against interference with projects and sand removal from beach areas. Although the Highway Department handled a number of projects on a case-by-case basis, there was no comprehensive

program to deal with the continuing loss of lands along the beach front. Efforts consisted largely of after-the-fact responses to severe storms such as those of 1933, 1944, and 1962.²

The rapid growth of ocean front resorts in the late 1950's brought home the importance of beach erosion to the Delaware economy. Perhaps the one incident which highlighted the susceptibility of ocean and bay front property to the forces of nature was the record storm of March 1962, in which a "northeaster" produced waves 20-30 feet high along the coastal areas, with resulting damage estimated at the time in excess of 16 million dollars.

In 1972 the General Assembly passed the Beach Preservation Act, under which the Delaware Department of Natural Resources and Environmental Control assumed authority over beach protection projects. That law not only transferred to the Department the responsibilities formerly vested in the State Highway Department, but provided a broader mandate to deal with problems confronting beach front areas.

The Department is empowered to prevent and repair erosion of public beaches by constructing and maintaining groins, jetties, dunes, bulkheads, sea walls, breakwaters, and the like. Since the Departmental authority is confined to public beaches, it has adopted an ingenious approach to erosion of private properties, by requiring private owners to grant public use easements to beach front areas. The Department also has the power of eminent domain against property in a project area when private owners refuse to cooperate.

Perhaps the Department's most visible beach protection program is dune stabilization. In one year recently, the Department planted approximately 600,000 dune grass plants along the Atlantic coast and installed approximately 40,000 feet of snow fence to trap sand and stabilize dunes.

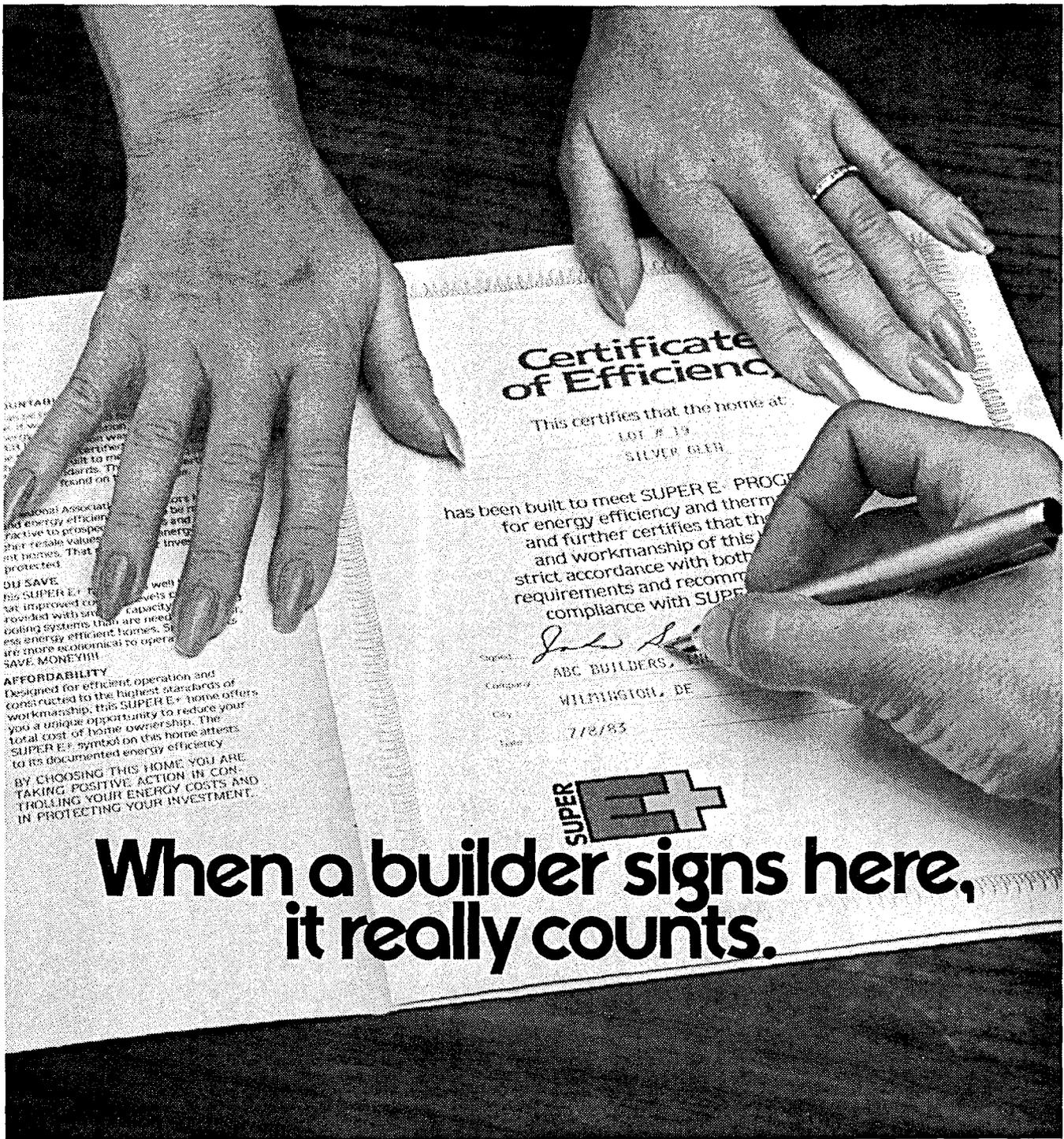
A beach preservation fund established under the Act requires \$1,000,000 annually through issuance of long term revenue bonds. This funding provision is a departure from the project-by-project approach, but still requires annual funding by the legislature. The provision for long-term revenue bonds poses a problem: the useful life of most projects is 3-5 years, but bond payments go on for a much longer time. Consequently, the

fiscal soundness of long-term bond financing for short-life beach protection projects has been questioned.

The other major activity of the Department under the Act involves administration of a comprehensive set of regulations dealing with beach preservation. Regulations were first adopted in July, 1983 and subsequently revised in 1974 and 1981. The most important regulatory provisions establish a building line along the coast and designate a beach area. The Department issues construction permits within that area, subject to a general prohibition (with limited exceptions) of construction seaward of the building line. The initial regulations were strict, but amendments cautiously addressed the "taking" of property without compensation: construction "beyond the line" is allowed on a lot subdivided before the amended regulations were adopted, if no other building location on the lot is available. Nonetheless, construction may be conditioned upon the builder's providing protections comparable to those afforded by the natural sand dune barrier. (These may take the form of beach nourishment, dune construction or maintenance, or even a requirement to continue protective measures throughout the life of the building.) These conditions are premised on the notion that protection is owed, not only to the property owner, but to others in the general vicinity of the construction. The application of the building line provision has created administrative problems over type and extent of necessary protection, particularly where there is no natural dune barrier. The regulations severely limit activities on the dunes and establish a system for controlling access to the beach.

FEDERAL BEACH PROTECTION

The federal government has traditionally taken an active role in dealing with beach erosion, primarily through construction and maintenance of projects related to navigation. The principal agency is the U.S. Army Corps of Engineers, which exercises jurisdiction over rivers and harbors. The Corps of Engineers also provides direct assistance in emergencies arising from major storm damage. Under the Flood Control Act of 1968, the Corps of Engineers provides financial assistance to the State for approved state and local projects. Funds are *not* available for projects

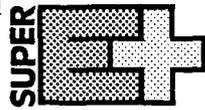


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One of the more controversial coastal area activities of the federal government is the National Flood Insurance Program, administered by the Department of Housing and Urban Development. The program provides a federal subsidy for insurance of high risk flood-prone areas, including ocean and bay front property. It has had the effect of encouraging development by making financing easier in risky locales. Development then prompts demands for state and federal funds to protect against beach erosion. An expenditure of public funds to combat nature for the benefit of private property owners has raised uncomfortable policy questions at both state and federal levels.

Governor du Pont, in his introductory remarks at the Governor's workshop on the Management of Shoreline Erosion and Flood Prone Areas held March 6, 1978, summarized the complexity of the policy issues with the following comments:

"Let me just lay out for you four or five of the questions that are facing us which are indicative of the difficult problems we face in managing this area. First, should the State allow new construction or rebuilding along beaches that are subject to storm waves and repeated damages? If the answer to that question is 'No,' how are we going to protect the rights of private property owners along the shorefront? Second, is it physically and economically feasible to protect shoreline property? Third, what responsibility, if any, do state taxpayers have to protect private beachfront

property? Fourth, should those who locate in hazard areas bear the risk and the financial burden for that decision? Fifth, if the state undertakes protective measures that benefit flood prone property owners, should the state recoup some or all of those costs from those property owners? If the answer is no, we must ask why not? If the answer is yes, we might ask how are we going to do it? Finally, is the present state authority adequate to deal with these problems; and if not, what kind of statutory action should be taken in our General Assembly to give the state the necessary power to do the job? The answers to those questions are difficult; in fact, some of them make you uncomfortable just thinking about them, but that's the nature of the beast."

One response from the federal government has been the adoption of coastal barrier legislation in 1982, which has had the effect of prohibiting any expenditure of federal monies in certain designated areas. In the State of Delaware along the Atlantic coast certain undeveloped lands located south of the Indian River Inlet have fallen under these restrictions. Along the Delaware Bay isolated strips of undeveloped beach land extending from Broadkill Beach to South Bowers Beach have also been designated. The barrier island legislation has severely hampered development in those areas.

* * *

In the past seventy years the Delaware coast has undergone great change. Substantial growth since the

late 1950's has prompted State and local policy makers to confront the issues of future growth and present protection. Each severe storm raises questions about the extent to which public expenditures are warranted to protect ocean and bay front regions vital to the economy of Delaware.³ At this time no clear cut approach has been adopted to deal with what may turn out to be a losing battle. To date that battle against nature has been an attempt to buy time along the coast. One commentator has described past efforts as a dutch-boy-dike-plugging process. New growth, which is sure to occur in privately held coastal land, will force policy makers at State and local levels to seek a considerable balancing of socioeconomic interests.

The success of that effort is by no means assured. Let us remember wise old King Canute as we clutch for subsidies and deceive ourselves with fragile bulwarks against the ineluctable forces of the sea. □

1. "Delaware's Changing Shoreline," Technical Report #1, Delaware Coastal Zone Management Program, May 1976, John C. Kraft, Elizabeth A. Allen, Daniel F. Belknaps, Chacko J. John and Evelyn M. Maurmeyer, Department of Geology, University of Delaware.

2. "Beach Preservation Legislation and Administration in Delaware - Evolutionary Trends," November 1974, Robert D. Henry, Geohydrologist, Division of Soil and Water Conservation, Delaware Department of Natural Resources and Environmental Control.

3. Preliminary U.S. Army Corps of Engineers studies have estimated that as much as 4/3 billion dollars will be needed to stabilize Delaware's Atlantic coastal area over the next 50 years. Failure to take action could result in an average loss of 150 feet of land over such period.



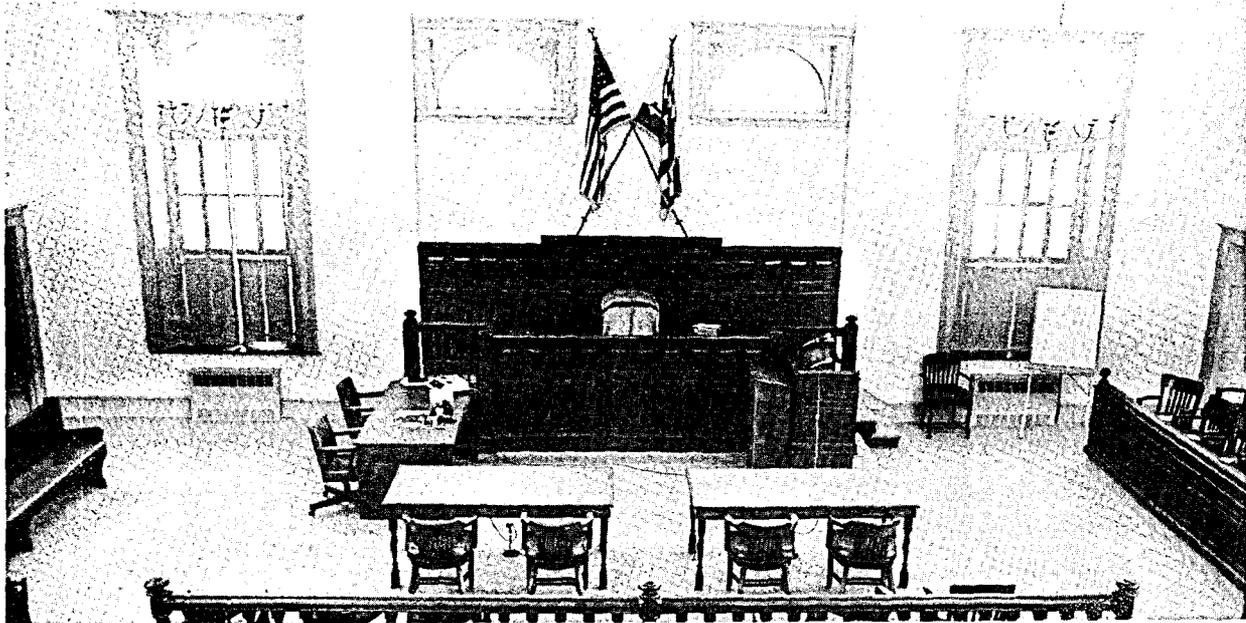
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JUNE D. MACARTOR

June MacArtor's message in this article is a timely one. What we find especially heartening in her account is the realistic prospect of workable regulations, grounded in the best technol-

ogy, cost effective, and environmentally sound. This is a hot topic, bound to get hotter. We thank June for making us privy to her specialized knowledge.



From 1974 until recently, June D. MacArtor was a Deputy Attorney General assigned to the Department of Natural Resources and Environmental Control, where she and three other Deputies handled all of the legal work for the Department's four divisions - Environmental Control, Parks and Recreation, Fish and Wildlife, and Soil and Water Conservation. In 1980 she was appointed Deputy in charge of the Environmental Group of the Department of Justice.

June picked law as a second career, building on a long-term management and organizational career as manager of a household of six, interspersed with civic responsibilities as President of the League of Women Voters of Wilmington and of Delaware and Vice President of the League of Women Voters of Arcadia, California. Her environmental work in the League led directly to a desire for the greater clout obtained through technical training in pollution control at USC in 1970 and a law degree from Villanova in 1974.

Should lawyers be interested in septic systems? One lawyer, preparing a real estate settlement for a client, learned of draft regulations for on-site disposal systems that might have precluded his client's use of the parcel for residential purposes. The lawyer developed a sudden burning interest in the subject. So did another lawyer dreaming of a multi-million dollar ground water pollution judgment against major Deep Pockets. He learned upon inquiry that the real problem was his clients' unwitting ingestion of their own sewage, since they were drinking water only slightly filtered between their septic systems and their wells.

Clients who come from the big city seem to think that water is manufactured in the tap, and when it goes down the drain it instantly evaporates, leaving no residue. Lawyers who come from the big city share that misconception, but clients can't be charged with malpractice for ignoring waste disposal in conducting property settlements, in drafting developer contracts, and in attending to municipal affairs. Lawyers would be well advised to become interested in septic systems, and, as will appear further on in these pages, efficient alternatives to the septic system approach.

The worst problems arise when sewage comes to the surface of the land.

Children and animals may then come in contact with fecal coliform bacteria and other organisms. Such a situation arises:

- when septic systems fail
- when systems fill up and need to be pumped
- when they were built in the wrong place and the land can't take the effluent
- when the soil becomes clogged and a new field location must be found.

Another problem receiving increasing attention is the pollution of ground water from inadequately designed, improperly installed, or poorly located septic systems. It's a worrisome issue in the Inland Bays region of Sussex County, of concern not only to environmentalists, but to those who depend on the local aquifer for drinking water, and those who depend on the bays for clean fish and tourism. In all three counties the problem arises in small communities far from municipal sewer or water lines, but too densely populated for safe waste disposal and wells on the same property.

Just what is a septic system? Is it useful? Is it the only alternative in non-sewered areas?

Because wastes do *not* evaporate without residue, they must be safely disposed of. Fortunately for those homeowners who do not wish to be

limited to building where there are sewer lines, a septic system can be a satisfactory, not too expensive, and relatively low maintenance method of disposal. It consists of a large multi-compartment tank (sized to meet the expected amount of flow) to which a pipe delivers household waste water and solids. Solids settle in the tank and biological action digests raw sewage in an airtight environment. Solids are retained in the tank and the liquid goes through a pipe to a distribution box. This distribution box evenly distributes the effluent flow to an underground system of two or more lines of perforated pipe of 60 feet, more or less. The pipe delivers the effluent to a gravel bed from which it percolates through the soil, filtering harmful materials before the water can get back to the well. Properly installed and maintained, a well-designed system provides years of trouble-free operation. However, design, placement, installation, and maintenance are all potential trouble points. In Delaware, lawsuits between private parties and enforcement actions by governments have occurred at each point, inflicting grief and expense that could have been avoided by alertness and knowledge.

I think of the couple who sat in my office in tears as they described their dream house afloat in the rainy season on soil with a high water table through which no effluent from a tile field could drain. I think of the family whose house could not be occupied until a sewer line went past their hard clay, low-set yard into which an expensive septic system had been installed, and I think especially of the gentle lady who thanked me for my courtesies after I had broken this devastating news to her. As a result, I take positive pleasure in conducting enforcement proceedings against violators and in providing information to attorneys trying to decide whether their clients have causes of action for poor workmanship or misleading representations. The statute of limitations on septic system defects runs from the time the cause of action is discovered, which may be a long time after the system is installed. *Rudginski v. Puellela*, Del. Super., 378 A. 2d 646 (1977).

Some locations are not suited to septic systems, and this may not be known until a system fails. Sometimes

it is ignored in the hope that a problem won't "surface." Doesn't the requirement for a permit take care of the problem? Alas, no. The permit requirement eliminates a lot of problems but it's no guarantee that all will be well. Under the present *State* regulations, the location and design of the system is chosen on information produced by a percolation test. (New Castle County sought and received permission to operate its own on-site disposal program and has its own regulations.) Correctly performed during the proper time of year, this test tells the installer and the regulator the carrying capacity of the soil so that the system may be properly sized and located. Falsifying this information is a criminal offense.

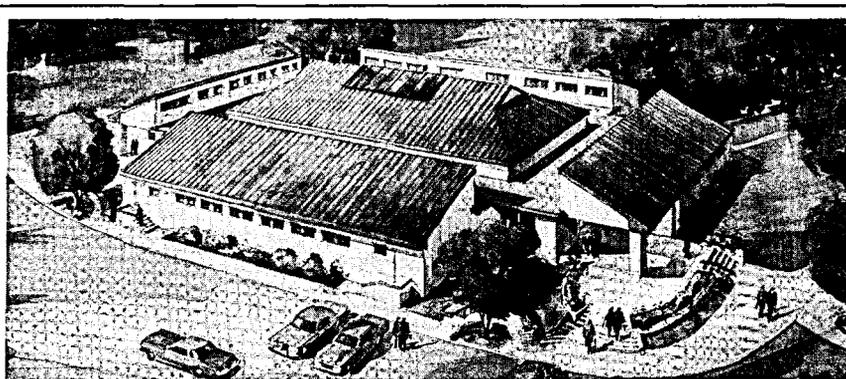
Even when properly performed, the percolation test does not always disclose how high the water table will be during wet periods. Some locales are red-flagged by the Water Pollution Section of the Department of Natural Resources and Environmental Control (DNREC) as areas in which the soils have problems or the water table is high. If improbable percolation test results are submitted, the test may

have to be repeated under DNREC supervision.*

A search for a method of soil analysis that would flag the problem of seasonal high water led the DNREC to employ a scientist to assist in soil evaluations and in the development of new regulations.

In the world of soil science, a properly trained examiner can find the maximum stable high water table, even in the dry season. Soils saturated for long periods of time "mottle" or become marked with spots of contrasting colors. Mottles enable soil scientists to identify soil where an anaerobic condition (lack of oxygen) discloses repeated saturation with water. The phenomenon occurs because certain bacteria in the soil reduce metal oxides to compounds of different colors. It can be understood by thinking of the bacteria thriving on oxygen found in well drained soils, but gasping when the ground is water-soaked. In their gasping they grab oxygen from mineral oxides, thereby

* Sternly independent percolation testers have been known to take a jaundiced view of this sort of interference. The test supervisor has suggested that counsel make it plain to their installer-tester clients that assaults on the supervisor are actionable.



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permanently changing the colors from browns, reds or yellows to greys, blues and greens. An example of such a change is expressed chemically as $Fe_2O_3 > 2 Fe O + O_2$ (ferric oxide to ferrous oxide and oxygen).

The alternative to soil mottling to determine suitability for septic systems is direct observation of the soil through test holes during wet years. Right away one can see that developer client is going to be unhappy when you advise him to wait for a wet year to check the water level if he would avoid exposure to liability for disposal systems that don't work. (Several cases in Delaware have established the principle that a buyer may recover for an inadequate septic system on a theory of warranty of habitability.) Other recoveries have been made without a lawsuit. Furthermore, in those situations in which a violation of state statutes or regulations has occurred, enforcement actions by the State have been successful.

New and Creative Approaches to an Old Problem

The law presently provides that before a structure that will generate sewage is built, there must be a method of disposal. It also provides that conventional septic systems may be placed only where the water table is more than four feet below the ground surface. The State and Counties work together to help ensure that development plans take this into account in the early planning stages. In all three counties a DNREC representative, along with other state agency representatives, sits on technical advisory

committees with county planners. In New Castle County the County has assumed the responsibility for the disposal program by agreement with the State and has its own regulations.

The present State regulations do not recognize alternatives to the conventional septic system, aside from a passing reference to temporary holding tanks, despite effective on-site disposal devices in locations where the soil or water table precludes septic systems. As more and more people have found that present regulations hamstring building even in the areas where it could be safely done, pressure to modernize the regulations has mounted. A major effort has been made to draft technically and environmentally sound regulations. An advisory committee representing community interests has reviewed nine working papers written by an engineering firm on several technical aspects of on-site disposal, and has drafted new regulations. The draft is scheduled for public workshops, hearings, and promulgation this winter.

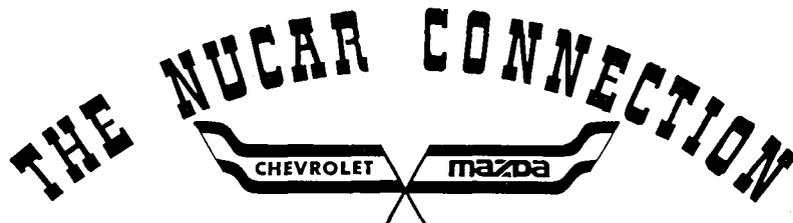
The goal of the revised regulations is to prevent on-site system problems such as surface "breakouts," contaminated water supplies and unnecessary replacement or extension of costly wastewater treatment and water supply systems. The proposed regulations require construction of on-site systems that will function properly without causing groundwater quality near the site to fall below the EPA's Drinking Water Standards.

The draft regulations are comprehensive and make use of the best

available information. System selection is based on the results of site-specific soil evaluation and percolation tests. Density is based on a minimum lot size that will allow dilution of those wastes that are not renovated by the soil and that enter the ground water. Site evaluation, the selection, design, and installation of systems must be performed only by those licensed under the regulations. Design criteria for alternative systems are included to permit construction on marginal soils unacceptable under present regulations. The acceptable percolation range has also been expanded to accommodate these alternative systems. Finally, a "grandfather" clause is proposed, which exempts eligible undersized lots from meeting the proposed minimum lot size and setback distances, subject to certain conditions.

The old regulations served well in an era of less rapid land development and simpler technology. Legal problems were manageable. That will no longer be so, unless we make it our business to be well informed. It is now the responsibility of the government agency to take new available technology into account. The responsibility of developers is to provide workable systems. And it will be the continuing responsibility of lawyers to keep abreast of the subject, so that they may advise clients intelligently, whether those clients are buyers, sellers or developers. Failing in that duty, lawyers will inflict hardship and avoidable expense on those they serve, and justifiable liability on themselves. □







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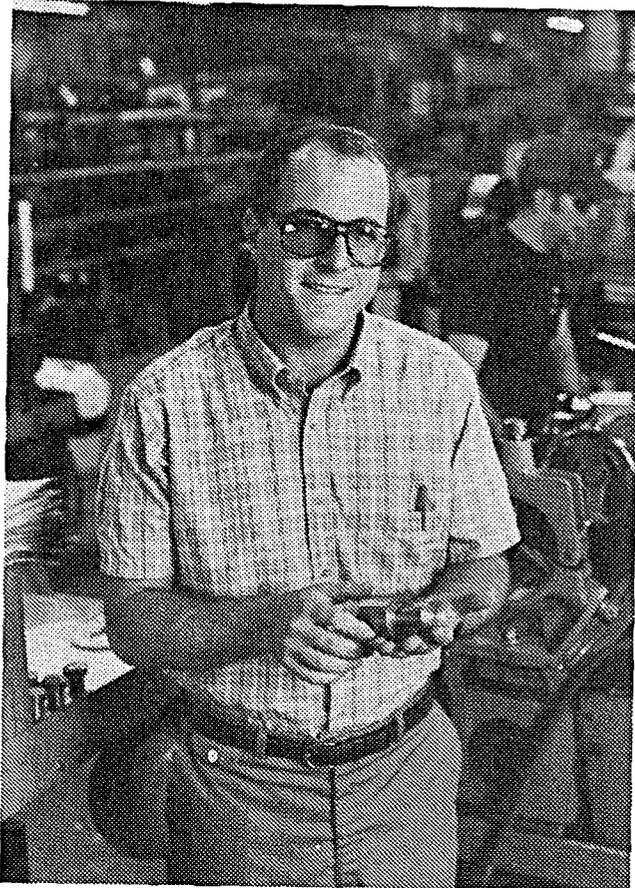
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An Overview of Water Pollution Law

JEANNE L. LANGDON

A decade ago, demonstrators at "Earth Days" around the country decried the filth in the nation's waterways and demanded action. Today water pollution control has gone beyond politics into the world of common business practice. Companies advertise their concern for clean water. Consulting firms have sprung up to fill the need for expert advice on complying with the law. To take one example, the 1983 edition of the Metal Finishing Guidebook-Directory lists 124 firms under the heading of "wastewater control and treatment." These companies supply water treatment equipment to remove metal solutions, paint, acids and other chemicals from wastewater before it is returned to streams or rivers. In 1970, that category was not listed in the Directory. Pollution control has become Big Business.

"Pollution" is not easy to define, much less eliminate. Water pollution most immediately brings to mind substances harmful to humans and animals: heavy metals, herbicides, pesticides, and other toxic chemicals. This category also includes infectious pathogens; bacteria and viruses which can cause directly, or indirectly through fish and shellfish, diseases such as hepatitis, polio, typhoid fever, and tuberculosis. Changes in the character of water can also be considered pollution. Excessive acidity, alkalinity or salinity, or changes in temperature alter the aquatic balance, impeding the spawning of fish and killing them. An increase in turbidity (opaqueness) of the water, caused by the runoff of sediment,

cuts off light needed for the photosynthesis of underwater plants, and thereby reduces the supply of a primary food source for many birds and fish. Dissolved oxygen, required by fish for respiration, can be lowered to a level insufficient to support aquatic

life by the oxidation of biological materials. An overdose of easily decomposed materials can rob a waterway of dissolved oxygen in a matter of days. A subtle, but serious form of pollution is eutrophication (Greek, meaning "well fed"). When nitrogen and phosphorus are discharged into a lake, they overfertilize the lake and create an ideal growth medium for algae, causing a bloom of algae. The algae multiply on the surface of the water, forming a thick, green malodorous mat. This makes the lake unsuitable for boating and swimming, but the bloom endangers more than recreation: the layer of algae cuts off sunlight to the underwater grasses in the lake, and the rapid growth, death, and decay of the algae deplete dissolved oxygen. Without light and oxygen, the fish die, and the death of the lake is complete. Yet, this process is begun most innocently: the nitrogen comes from human and animal wastes, and the phosphorus can come from detergents.

Eutrophication threatening Lake Tahoe prompted *United States v. Douglas County* (D.C. Nev. 1973) 5 ERC (Environment Reporter Cases) 1577. The lake was nitrogen sensitive: because other necessary nutrients were present in the lake, the introduction of nitrogen would cause a bloom. The heavily developed residential area around the lake was largely served by septic systems. Because Lake Tahoe is a closed geological basin, with no out-flowing rivers, the percolating nitrogen-laden wastewater would eventually reach the lake and would not be carried off.



Jeanne Langdon, a Deputy Attorney General assigned to the Department of Natural Resources and Environmental Control, has long been interested in environmental matters. When she was attending the University of Maryland Law School (of which she is a graduate) she worked as a law clerk for Chesapeake Bay Foundation and the Maryland Department of Natural Resources. Jeanne is a member of both the Maryland and Delaware Bars. She is also a graduate of Johns Hopkins University.

The United States sought to enjoin further construction in the Lake Tahoe basin until a sewage treatment facility could be constructed to dispose of the treated wastewater outside of the basin. Although this case involved the difficult to enforce predecessor to the Federal Water Pollution Control Act Amendments of 1972, discussed below, the injunction was granted. It can never be determined if the injunction "saved" Lake Tahoe, but the lake today is still a popular recreation area.

The National Impetus for Reform

Attempts to control water pollution at the federal level began with §13 of the Rivers and Harbors Act of 1899 (The Refuse Act) 33 U.S.C. §407. This statute is very specific: "It shall not be lawful to throw, discharge, or deposit . . . any refuse matter of any kind or description . . . into any navigable water of the United States." The section provided an exception if a permit had been obtained from the Secretary of the Army. The Refuse Act was aimed less at preventing pollution than the obstruction of shipping channels with large discarded objects. The Act was largely unenforced until the early 1970's, when the absolute prohibition of discharge without a permit was seized by environmentalists as a powerful weapon against polluters. The U.S. Army Corps of Engineers, which administers the Refuse Act, prepared to initiate a permit program under §13 of the Act. But before the Corps could get the §13 permit program established, Congress enacted the Federal Water Pollution Control Act Amendments (FWPCA) in 1972, 33 U.S.C. §1251 et seq. It has almost entirely supplanted the Refuse Act.

The Federal Water Pollution Control Act was originally enacted in 1948. It provided for the measuring of the ambient quality of water and the establishment of standards according to use. Waters used for swimming were subjected to a higher standard than those used for fishing, which in turn were held to a higher standard than that imposed on commercial waterways. The object of the Act was to prevent degradation of water quality, but the difficulty of enforcement became evident in *U.S. v. Douglas County*. It could not be determined which house septic system would add that final increment of nitrogen leading to eutrophication. The government circumvented this

problem by arguing that the violator of the standards was the county authority, which had issued too many construction permits. The problem of identifying the violator was even worse in larger waterways to which many industries and municipalities contributed pollutants.

These obstacles were overcome when the Federal Water Pollution Control Act Amendments were enacted in 1972 after three years of Congressional deliberation. The Act contained both the water quality standards of its predecessor, and, like the Refuse Act, a prohibition of end-of-the-pipe discharges without a permit. Congress's stated objective in enacting the 1972 Act was "to restore and maintain the chemical, physical and biological integrity of the Nation's water." 33 U.S.C. §1251(a). Two principal goals to achieve this objective were set out in the same section: first that "the discharge of pollutants into the navigable waters be eliminated by 1985," and second that "an interim goal of water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water be achieved by July 1, 1983." The Act gives the U.S. Environmental Protection Agency (EPA) very broad jurisdiction to accomplish these goals. The Act defines the term "navigable waters" as "the waters of the United States, including the territorial seas" 33 U.S.C. §1362(7). In *U.S. v. Holland*, 373 F. Supp. 665 (DC MD Fla. 1974), a Florida district court upheld this jurisdiction by holding that, because water travels in hydrogeologic cycles, any activity in the waters of the United States has the potential to affect interstate commerce. This enabled the Court further to hold that filling of wetlands, which are clearly not navigable in the usual sense, was within the reach of the FWPCA and required a permit.

The heart of the FWPCA of 1972 is the permit system. Title 4 of the Act creates the National Pollutant Discharge Elimination System (NPDES) permit. Every end-of-pipe source of discharged pollutants must have a permit. This was an important first step toward cleaner water, because at last, the source, amount, and type of pollutants entering the water would be identified and monitored. By 1977, more than 42,000 permits had been applied for.

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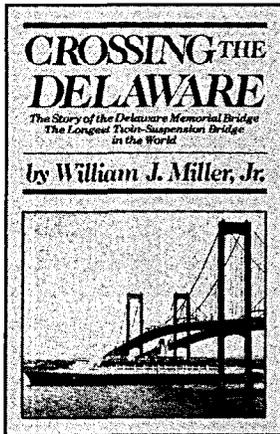


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Title 3 imposes technology based effluent limits on point sources. Congress realized that in many cases, the technology to remove pollutants from wastewater did not exist. By setting increasingly stringent standards, Congress hoped to force the development of the necessary technology. Dischargers were required to achieve, by 1977, effluent limits which reflected the application of the best practicable pollutant removal technology currently available. This would mean that some industries would be required to have a cleaner effluent than others, if the technology available to that industry would produce a cleaner effluent. The EPA was assigned the task of determining, for every type of industry in the country, the technology that would meet these requirements.

EPA was also directed to promulgate regulations governing the discharge of pollutants that cause death, disease, or other abnormalities in humans or animals, such as mercury, cyanide, and cadmium. These pollutants were not subject to the best practicable technology standard. If necessary, EPA could entirely prohibit their discharge. After ten years of missed deadlines and five lawsuits to compel issuance of the regulations (consolidated in a consent decree in *Natural Resources Defense Council v. Train*, 8 ERC 2120), only portions of the regulations have been promulgated. EPA has identified 65 toxic pollutants, but has established standards for only six: aldrin/dieldrin, DDT, endrin, toxaphene, benzidine, and PCB's.

Title 2 of the Act authorizes the federal funding of municipal sewage treatment plants, because of the high cost of construction to local taxpayers. The EPA was directed to establish pretreatment standards for industries that discharge into municipal treatment plants pollutants not susceptible to standard sewage treatment or pollutants that would interfere with the operation of the treatment plant (for example, pesticides dangerous to bacteria needed to break down sewage).

Finally, new sources in twenty-seven major industries are held to a higher standard than existing sources. New sources must apply the best available demonstrated control technology. This requirement reflects the fact that it is easier to design state-of-the-art water pollution control into a plant than to add it after construction.

The 1972 Act provided that in 1983 (later amended to 1984), all effluent limitations were to be upgraded to reflect the application of the best available technology. Whereas the determination of best practicable technology was based on the average performance of each industry, the EPA was free to determine the best available technology by imposing the standard attained by the single best performer within an industry. The EPA could go so far as to base the effluent limits on technologies which had not yet been used by an industry, as long as the EPA could reasonably conclude that the technology would be available by 1983. *Tanners Council of America, Inc. v. Train*, (CA 4, 1976) 540 F. 2d 1188. For many industries, the application of the best available technology would require the elimination of all discharges of pollutants.

As mentioned above, the FWPCA of 1972 used a two standard approach. The technology based effluent limitations were superimposed on the water quality standards approach of the 1948 Act. Although the permitting provisions placed the emphasis of the Act on effluent limits, the water quality standards approach was not abandoned. If it is determined that the application of the best practicable technology, (or after 1984, the best available technology) will not assure attainment of the goal of fishable, swimmable water, additional effluent limitations must be imposed to meet it. A point source discharging into heavily polluted water may have to meet stricter effluent limitations than one discharging into cleaner water. In setting these stricter limits, the EPA may, however, weigh the social and economic benefits of attaining water quality standards against the social and economic cost.

The enforcement provisions of the Act, 33 U.S.C. §1319, include both civil and criminal penalties. As the Act envisions the State as the primary enforcement agency, the EPA must notify both the discharger and the state that it plans to initiate an enforcement action. In a civil action, the EPA can seek injunctive or other relief. The criminal penalty for violation of an effluent limitation or a permit condition is severe: up to \$25,000 per violation for a first offense, and \$50,000 per violation for a second offense. Since each day is considered a separate violation, penalties in the

hundreds of thousands of dollars can add up quickly. To aid in the enforcement effort, the EPA can require the owner or operator of a point source as a condition of the permit, to take samples of the effluent according to EPA approved methods, keep records of these tests, and allow the EPA to enter the premises to examine the records and conduct its own tests, 33 U.S.C. §1318. The Act also includes a citizen suit provision modeled after a like provision in the Clean Air Act for enforcement by "private attorneys general."

In 1977, realizing that the ambitious goals of the 1972 Act would not be met, Congress again amended the FWPCA, with the Clean Water Act of 1977. The best available technology would not be uniformly required in 1983, but would be phased in beginning in 1984, as technology for each industry was developed. The speed of phasing in for each industry was determined by the pollutants discharged and the availability of technology to treat them. Pollutants were divided into three classes: conventional (such as coliform bacteria and suspended solids), toxic, and nonconventional (pollutants not included in the two previous categories). New timetables were set, requiring toxic pollutants to receive best available treatment by 1984, and nonconventional pollutants by 1987. Conventional pollutants were subject to a new standard less stringent than best available technology, best conventional technology by 1984.

The FWPCA of 1972 and amendments provide for administration of the program by the EPA, but also allow delegation of the program to the state if the state has enacted a water pollution control program acceptable to the EPA. The state program must establish standards at least as stringent as the federal standards. Such delegation enabled Delaware to embark on its own program in 1974.

The Delaware Program

Chapter 60 of Title 7 of the Delaware Code was already in place when the FWPCA was enacted in 1972. Section 6003 provides that "no person shall, without first having obtained a permit from the Secretary [of the Department of Natural Resources and Environmental Control], undertake any activity . . . in a way which may cause or contribute to discharge of a pollutant into any surface or ground water." Regulations were enacted in 1974 to supplement the

statute and to provide the effluent limitations and water quality standards required for delegation of the federal program. The EPA approved these regulations and delegated the program. The state issues permits (known as NPDES permits) after reviewing applications on forms provided by the EPA. Although the EPA retains a veto power over any proposed permit or effluent limitation, the program is administered by the state. Enforcement is at the state level, subject to oversight by the EPA.

Chapter 60 provides for both civil and criminal penalties for violation of a permit condition or effluent limitation. Criminal penalties for willful or negligent violations, can be as high as \$25,000 per day. Under the civil provisions, violators are strictly liable for up to \$10,000 per day. For continuing violations, dischargers can be enjoined. The Superior Court has both criminal and civil jurisdiction. The list of Delaware companies which have paid fines for water pollution violations reads like a Chamber of Commerce directory; from industrial giants to small "mom and pop" businesses. The highest civil penalty under Chapter 60 was \$120,000, paid

by one of Delaware's major industries. This company was one of several which was not in compliance with the best *practicable* technology standard by the 1977 deadline. We may expect another rash of suits when best *available* technology becomes the statutory standard beginning in 1984.

The FWPCA and the Delaware statute both primarily address point sources. However, many pollutants enter the water from non-point sources, in the form of runoff from streets, parking lots, and fields. From streets and parking lots, rain water picks up engine oil and asphalt and carries these pollutants into drainage ditches from which it is emptied, untreated, into streams and rivers. The problem is intensified in areas of dense development. As more land is built on or paved over, there is less opportunity for rain water to soak into the earth and filter out some of these contaminants.

In Delaware, as in other agricultural states, runoff from farms poses another serious problem. Wind and rain erode the fields, carrying soils into our waters, and along with them, herbicides, insecticides, fertilizers, and animal wastes. In Maryland,

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a recently instituted program may help curtail this type of pollution. On all public land rented to farmers, a buffer strip must be left untilled at the water's edge. This buffer zone will help to filter out some of these contaminants before they reach the water. Sussex County, Delaware has a similar provision in its zoning code, which requires a 300 foot buffer strip between housing developments and waterways. However, there have been recent attempts to weaken this provision by applying it only to housing developments on the Delaware Bay or Atlantic Ocean.

New Initiatives

Problems of non-point sources may be addressed in a bill pending before Congress to amend and reauthorize the Clean Water Act. Senate Bill 431, as written by Senator John H. Chafee, a Republican from Rhode Island, included a requirement that the states establish non-point source controls. The Senate Environment and Public Works Committee deleted the provision because of complaints that agricultural interests had not been involved in hearings on the bill, and because of opposition of some Western Senators, concerned over federal intrusion into property rights. However, since non-point sources contribute to the degradation of water quality, industries and municipalities may be required to comply with lower effluent limits in order to meet the water quality standards put at risk by non-point sources. Given this trade-off facing Congress, it is likely that some sort of non-point source controls will be con-

tained in a compromise bill.

The Reagan administration favors Senate Bill 431 as amended by the Committee, because it puts off the inevitable of best *available* technology until 1987. The administration opposed the non-point source controls, professing lack of information about waterways where non-point sources are concededly degrading water quality.

Another provision of Senate Bill 431 would require the states to establish additional effluent limitations for certain toxic pollutants applicable to industries where best available technology is insufficient to meet the water quality standards. It would also require the EPA to report to Congress on hazardous wastes entering municipal sewage treatment plants.

One proposed amendment to Senate Bill 431 would make each NPDES permit valid for ten years, instead of the present five years. This change goes beyond merely easing the burden of filling out applications: it would double the time that a discharger could rely on the status quo. Under the permit system, a discharger must have the best practicable equipment when the permit is applied for. Even if improved control equipment is developed thereafter, the discharger is not required to upgrade his plant until the expiration of the permit in five years. For business planning purposes, then, pollution control equipment can be assumed to have a life span of at least five years. An amendment changing the validity of the permit to ten years would allow even more flexi-

bility in business planning. Five additional years of operation without improved technology would, however, slow down the cleanup of the nation's waterways.

Despite the postponement of deadlines, the nation's commitment to cleaner water remains strong. The goal of fishable, swimmable water has been met in many places. The 1972 Act dealt with the most immediate pollution problem: industrial discharge of harmful substances. Industry has had enormous success over the past ten years in limiting, if not eliminating, these pollutants. Faced with a tough, enforceable law, industries met the best practicable technology standard, and will undoubtedly meet the best available technology standard when the time comes to make the transition. Municipalities have had a harder time trying to meet the goals of the Act. The cutbacks in federal funds for construction of municipal sewage treatment plants may mean that poorly treated sewage will continue to be pumped into the nation's waterways.

The next ten years may bring a shift in enforcement of the Clean Water Act. Having solved many of the immediate pollution problems, Congress can now put the emphasis on maintaining those gains. In addition, the more elusive pollution problems, such as non-point source pollution and groundwater protection, can be addressed. The next ten years could make Congress' goal of fishable, swimmable water nationwide a reality. □

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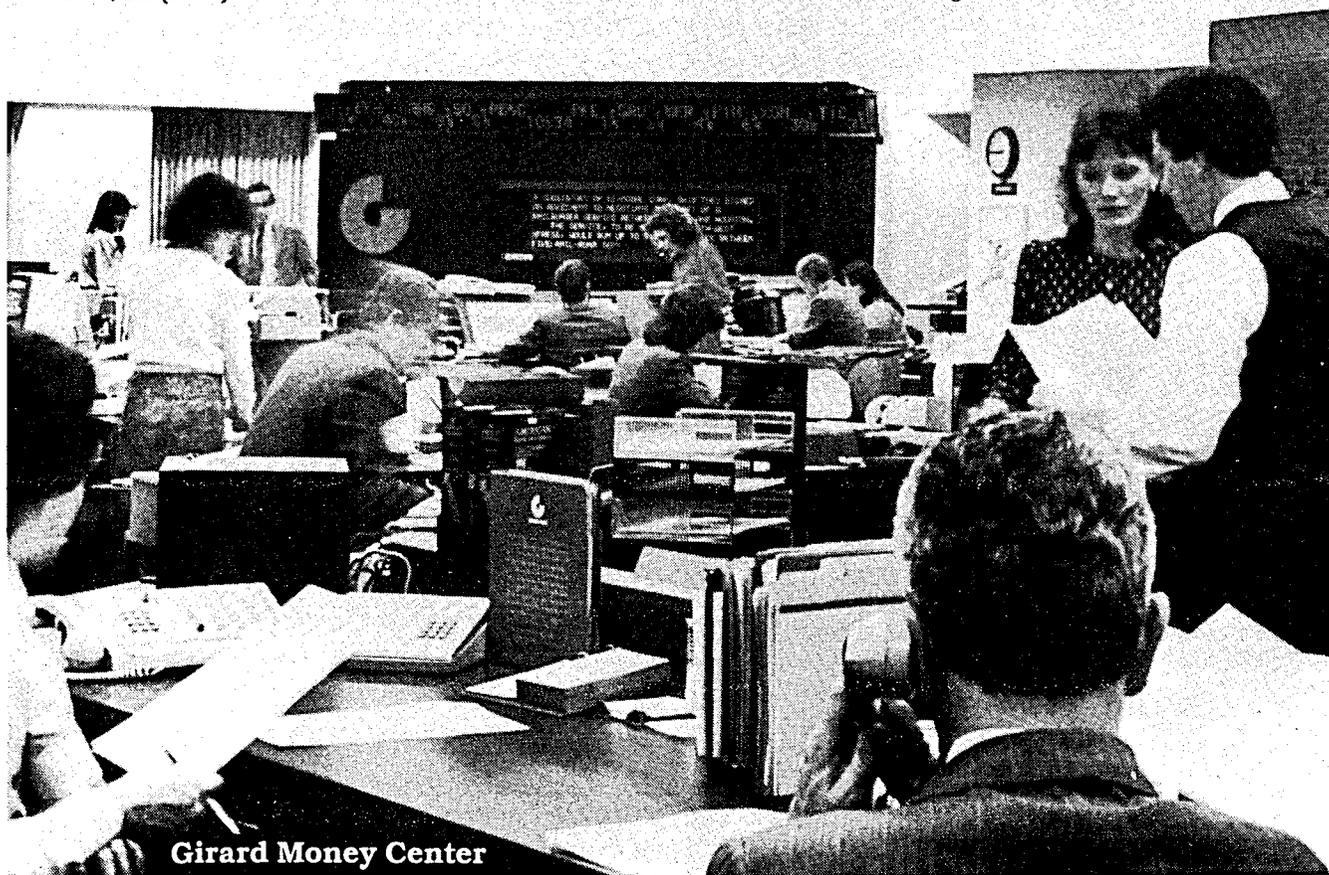
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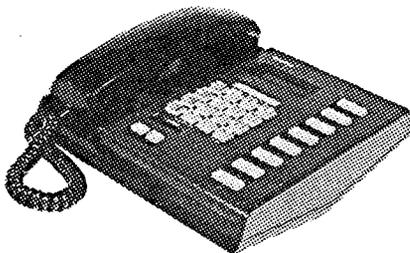
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Confessions on Crossing the Augustine Bridge

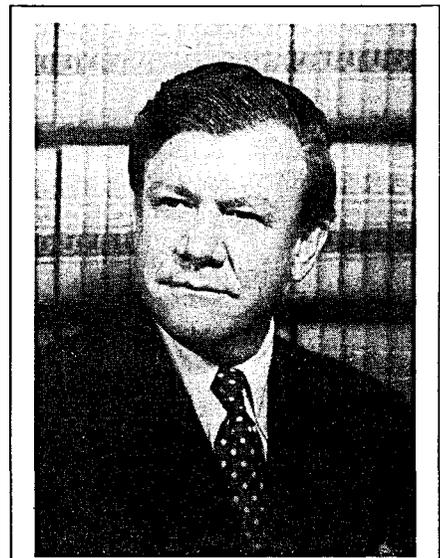
WILLIAM PRICKETT

And now for an environmental adventure! Bill Prickett tells us that his account of wholesome exercise in the out-of-doors carries neither moral nor message. We think he is in error: the environment, well used, may be hazardous to your health.

This is an account of a very small incident indeed. However, using this incident as a sort of framework, I have managed to weave in a large number of bits and pieces of totally unrelated matters including such things as a projected trek in the Himalayas, the Gospel according to St. Matthew, Achilles, "Ode to a Grecian Urn," etc. Thus, this little account turns out to be a literary pot-pourri or a sort of magpies' nest or plum pudding. But let me quickly point out in its defense that it is not burdened with a moral or a message. Furthermore, it does have a nice ending. It is written for my amusement and perhaps that of Annie, my daughter, age 4. With these caveats, let those, not already deterred, read on.

In preparation for an upcoming Himalayan trek, I have at times bicycled at the noon hour rather than wallowing in the culinary excesses of the Wilmington Club. On the day in question, I changed into my rather sporty Victorian bicycling shorts. I

pulled on my bike helmet over the ear-phones of my Walkman. I hung the tape player itself around my neck. My friend Nick had lent me his taped copies of the entire New Testament. Thus, as I was trying to improve my body, I would also do something for my soul by listening to the Holy Word. (Of course, I backslide every once in a while by slipping on a blaring Vivaldi Concerto rather than listening to the placid recitations of the New Testament). However, on this particular day, I was listening to St. Matthew's account as I pedaled up the Park Drive and came across Augustine Bridge, over the Brandywine River. My projected forty minute luncheon ride was to be up the Alapocas Hill, beyond Wanamakers, down Alapocas Road, around the DuPont Experimental Station, down the hill and across the Iron Bridge, back up the Rising Sun Lane, then behind Tower Hill School, past the statue of Nick's naval ancestor, Admiral duPont, then down through the park and so back to the law office on King Street. However, at the very far end of the Augustine Bridge, there was a large fatuous billboard sign in which a hound dog, wearing a Sherlock Holmes hat was saying "Help Me Take a Bite Out of Crime." It may have been that exhortation that



This is Bill Prickett's second appearance in the pages of DELAWARE LAWYER. (Readers will remember his entertaining historical study of Thomas Spry in our fall 1982 issue.) Bill has also been a tremendous supporter of the magazine in other ways. He contributed data for the biographical materials in our inaugural issue and, as a director of our sponsor, Delaware Bar Foundation, he is largely responsible for the explanation of what the Foundation does, a discussion appearing elsewhere in this issue. He practices law at the firm of Prickett, Jones, Elliott, Kristol & Schnee, wields a mean bicycle, and writes with unvarying grace and distinction. Welcome back, Bill!

sublimely deflected me from my holy course.

This true incident, which is the heart of this account, began just after I crossed the Augustine Bridge and was going by Wanamakers. In spite of the Holy Word pouring into my ears, I heard shouts. Looking around to my left, I saw a stout matron running with all her might and main, shouting and waving her arms. In front of her, a fleet-footed man was rapidly sprinting away from her. Underneath his sweat shirt, he had a bulky item: clearly the portly heroine's pocketbook, from her shouts. Since it seemed dead certain that the thief would shake off his weighty pursuer unless some help were promptly given, I turned my 10-speed smartly to the left, and started to give chase. My efforts, however, literally almost came a cropper at that point because, in my excitement, I came within a whisker of running smack dab into the curb. When I got back on course and was in hot pursuit, I added my cries to those of the outraged matron. I shouted "Stop thief" and abjured him in the name of the law and all that was holy (in view of what I was listening to) to drop his ill-gotten gains. However, the purse snatcher paid no heed whatsoever to either my secular or religious commands. But the thief was not the only one who paid no heed. There were shoppers and other passersby who took no notice of the contest between the forces of good and evil that was unfolding around them. Like those who came along before the Good Samaritan, these good folks simply continued on their way.

My 10-speed bike was, of course, much faster than the runner, so at times I would gain on him. However, he could and would elude me by going up on the pavements and other places where my bike could not go. However, the portly matron was still behind us, huffing and puffing. Clearly, she had lost none of her appetite for the chase. Thus, she could take up the pursuit where my steel charger could not go. Thus, together we made an incongruous but marginally effective team—a sort of a fat Jack Sprat and wife, so to speak.

Of course, I still had St. Matthew intoning in my ear. As I was pursuing this outlaw, several diverse thoughts raced through my mind. First, it occurred to me that if I did catch the

thief, he might well pound me to a pulp since, in spite of my recent program of physical training, he was obviously far younger and stronger. Thus, I had fleeting second thoughts about the wisdom of really catching up with him and trying to extract the pocketbook from under his sweatshirt. I also considered the really dangerous possibility that this thief might just well have brought along a handgun. (After all, with our current lax gun laws, it is not unknown for people working in that profession to take the sensible precaution of packing a handy little pistol for just such an eventuality.) However, I comforted myself with the thought that with the Holy Scriptures pouring in my ears, I would hardly suffer evil, or if I did, I would die sanctimoniously, if not sanctified. Next, I thought about Achilles pursuing Hector around the Walls of Troy. That was downright silly. I am not Achilles: the thief clearly was not Hector, whose Andromache with a Scamandrios in her arms was watching from the battlements of the Ladies and Junior Misses' Department. After all is said and done, Wanamakers is not Troy. Furthermore, I could not remember at that point, or indeed now, whether Achilles pursued Hector clockwise or counterclockwise around Wanamakers, or rather Troy (though my English teacher had asked this, I believe, on a spot quiz about 35 years ago).

As the chase went on, I became concerned as to how and when it was going to end. I had visions of the chase going on and on, like my Aunt Flo's German Christmas centerpiece or perhaps like the Greek youth in the Ode. As a senior partner, I have a certain latitude in getting back from lunch, but I do like to set a reasonably good example. Such an example does not include spending the afternoon endlessly circumnavigating Wanamakers. However, my fears were premature: this little drama had a *deus ex machina* (or rather *diabolus ex machina*) to bring it to a *dénouement* and extricate us all from this circular situation. On about our third circuit about Mr. Wanamaker's stone emporium, three heads rose up inside a non-descript battered car. Clearly they had been following the chase with more than passing interest. Then, quite suddenly, the getaway car, for such it was, roared down alongside

the now nearly exhausted runner. The car paused briefly, the back door slipped open and our quarry jumped in. Then the car turned 90° and it was coming at me. I quickly became aware of the fact that the tables had been turned: I was now the hunted rather than the hunter. I quickly jumped off my bike and got behind a large oak tree. "A Mighty Fortress is Our Lord" but a stout oak tree seemed like a sensible precaution under all the circumstances. My newfound faith was too weak to beard this automotive lion.

The car again turned sharply and sped down and out of the parking lot. I peered out from behind the tree and made a mental note of the number on the license plate. Shortly afterwards, the matron puffed up, followed by a security guard (whom I must say I had not seen at any point up until now). He whipped out a pad and pencil and asked me, the matron and two other passersby for information on the purse snatcher and the getaway car. We all four had noted the license number. The problem was that among the four of us, there were four different versions of this critical license number. The guard looked pained. He then asked for a description of the thief. Again, he got a variety of descriptions. The group was no more help in describing the getaway car. The four descriptions ranged all the way from a four door 1961 two toned green Pontiac to a two door 1973 brown Chevrolet Corvette. It was thus proved again, if it needed to be, that we all see things differently. However, when all was said and done, we had at least tried to do our civic duty. If more people did so, there might be less crime, or at least less successful crime.

Well, mercifully, that about ends this little account. Of course, I then continued on my way up the Alapocas Hill and completed the circuit without further incident.

Now for the ending. That night I told a wide-eyed Annie about my exciting adventure that day. After hearing my tale, she considered it for a moment. Then she said rather judiciously that she had wondered what, as a lawyer, I did all day but now she knew: I practice law by trying to catch thieves. □

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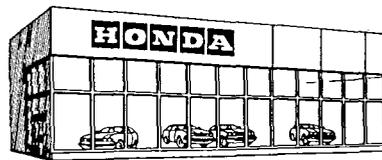
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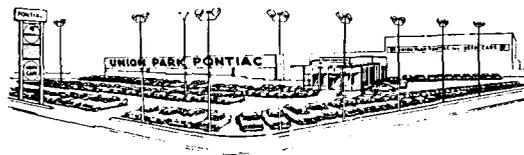
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Riparian Rights in Delaware - A Colonial Legacy

CHARLES M. ALLMOND, III

Charles Allmond traces the development of riparian rights in Delaware from the time of original settlement until 1900. His article is drawn from a longer, scholarly study founded on extensive research. Space limitations prevent our publishing many references supporting his conclusions. DELAWARE LAWYER will be happy to make them available to readers who wish to pursue the subject further. Charles's research should be invaluable to our lawyer readers who are litigating and briefing the issues he addresses. His full article with authorities is also on file with the Historical Society of Delaware.

The Editors

The law of natural resources has become one of the most rapidly developing areas of American jurisprudence. The complexities of modern civilization have exerted pressures on all aspects of life, including the law, which, as a human institution, is susceptible to these pressures.

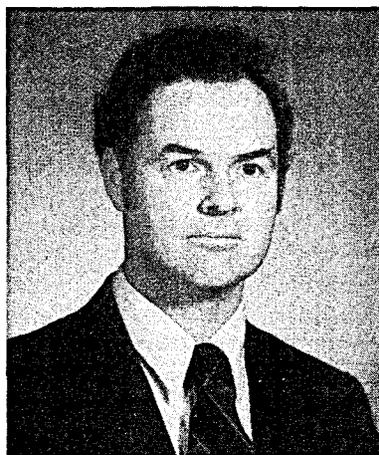
Americans have become acutely aware of the importance of the environment. No longer is pollution regarded merely in terms of economic risk. An increased knowledge of the relationship of man to the earth has led to more and more environmental activities by government, science, and industry. All of this has had a substantial impact on the law.

Despite the recent development of this body of law, it would be quite wrong to regard it as completely new. Many facets of this law have existed for centuries. Certain fundamental legal doctrines were firmly established long before "ecology" became a popular word. This is particularly true in the case of the law as it applies to water and to water rights.

The earliest settlers in Delaware recognized and practiced important principles of water law nearly one hundred years before the American Revolution. The first references are to be found in the records that relate to the construction of water-powered mills, and later cases frequently deal with the determination of the rights of mill proprietors. The preponderance of mill-related matters is understandable, given the geography of Delaware and its early economy. The population was small, there was plenty of water for every need, and the only areas where there was any real

competition for the supply were on streams that had mill sites.

Many mills were built in colonial times to serve the needs of agricultural communities. With the advent of the Industrial Revolution, milling grew and became an important commercial enterprise in Delaware. Water-powered industries, particularly in New Castle County, flourished from the mid-eighteenth to the dawn of the twentieth centuries.

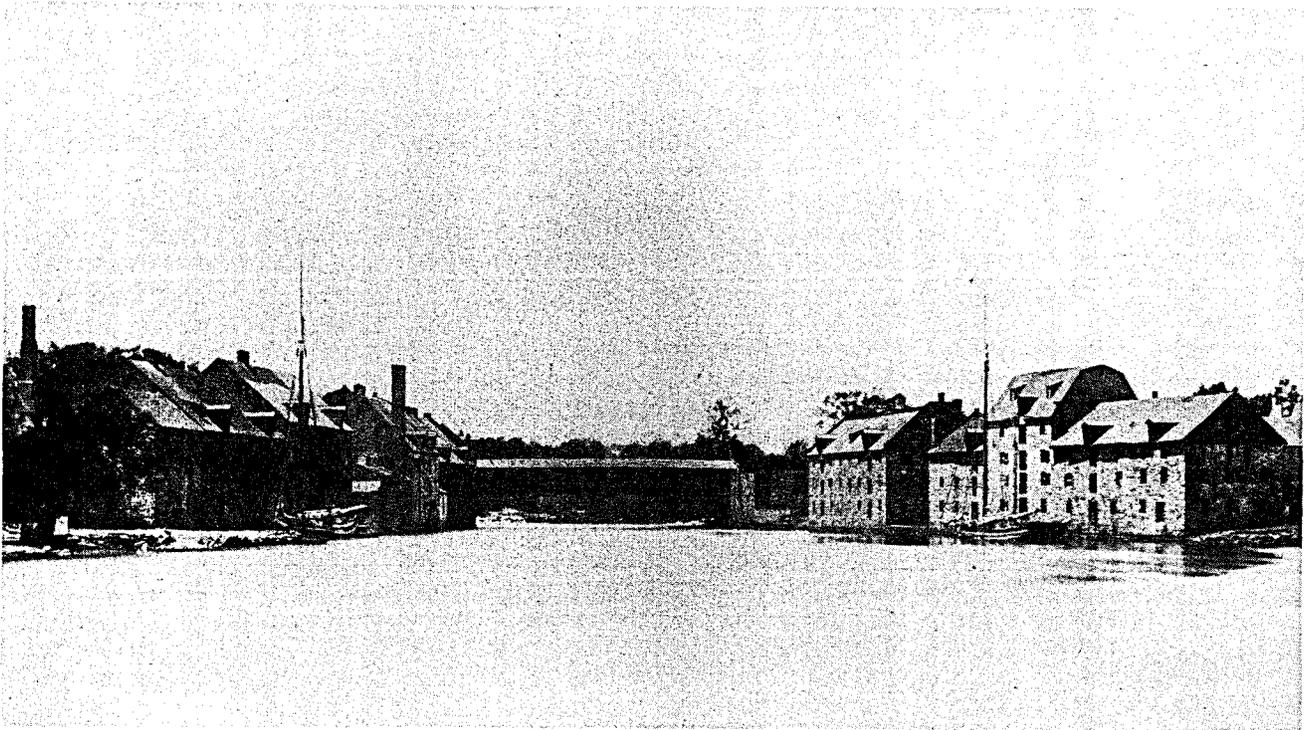


Charles Allmond, who has practiced before Delaware courts since 1964, is a graduate of the University of Delaware, where he also secured a masters degree in agronomy. He is a graduate of the Temple University School of Law. While he was a student at Temple, prophetically interested in environmental matters before they attained the vogue they enjoy today, Charles began the research that culminated in this article. He is a member of the firm of Allmond, Eastburn & Bengé. Beyond the law, he has a wide range of interests in charitable and cultural activities. He is an accomplished wood carver-sculptor and, as his article reveals, a close student of Delaware history generally, and its legal history in particular.

In 1795, New Castle County alone had "several fuling mills, two snuff mills, and sixty mills for grinding corn, all of which [were] turned by water," and the county was said to be "the greatest seat of manufacturers in the United States." There were thirty-six waterwheels within five miles of Wilmington on the Brandywine Creek in 1815. From 1770 to 1816 the fourteen tidewater merchant flour mills, known as the Brandywine Mills, became internationally known, as did the powder mills of E. I. duPont deNemours and Company a few years later.

Before we begin to unravel the intricacies of early Delaware water law, certain basic principles should be noted. Water law is divided into three parts: the law of water in natural watercourses, the law of underground or percolating water, and the law of surface water. This division has no scientific basis, as all water is part of the hydrologic cycle. Artificial as this categorization may be, it is readily understood by lawyers. Legally, these three types of water are distinct, and different doctrines have been formulated for each. While it may become possible for future law to treat all water as a single resource, the law of the past and present cannot be comprehended unless water is considered as flowing in a natural watercourse, or as ground or surface water.

A watercourse has been defined as, "a stream of water having the characteristics of permanence, flowing along a defined channel, with a bed and banks" The people who own land on the bank of a watercourse or river are called riparian owners.



The Brandywine Mills as they appeared about the time of the Civil War. The covered Market Street Bridge shown here was built in 1839 and was replaced by an iron span in 1887. (Photograph courtesy of Historical Society of Delaware.)

There are two basic doctrines in the United States concerning the right to use water in a natural watercourse: those of prior appropriation and of riparian rights. Prior appropriation has become the law in some western states where the supply of water is often limited. It recognizes the primary right to the water of a stream in the first person who has appropriated it for a beneficial purpose, to the extent of that appropriation. The water is not restricted to use on riparian lands, but can be used by the appropriator anywhere.

The doctrine of riparian rights entitles riparian owners to receive the waters of a stream undiminished in quantity and unchanged in quality or temperature. This doctrine has been further subdivided into the natural flow and reasonable use doctrines. In its pure form, the natural flow theory was so strict that no practical use could be made of a stream. As a consequence, an early exception evolved which permitted use for domestic purposes such as drinking, cooking, and watering cattle. The exception has been broadened in some states to include water power, irrigation and manufacturing as domestic uses. Still other states have adopted the reasonable use theory, which permits riparian owners to make extensive use of the stream so long as the use is reasonable under the circumstances.

Generally, where the riparian rights doctrine is in effect, water may *not* be diverted to non-riparian lands. The riparian rights theory, solidly entrenched in the English common law, has been adopted by most eastern states where, as in England, there is normally no shortage of water. It received early acceptance in Delaware.

The development of riparian rights in Delaware begins in the waning years of Dutch rule when Joost Andriessen and Company petitioned the Director-General of New Netherlands for permission to erect a grist and saw-mill below the "Turtle's Falls" (Shellpot Creek). Approval was given in 1658, and the mill, one of the first in Delaware, was erected in 1622.

A petition for a second mill was granted January 7, 1678/9, by the Court at New Castle. The three lower counties by this time had come under the English flag. Approval was given subject to the provision that ". . . this mill and land doth not prove prejudicial to the old first built mill alsoe that the land be not granted or taken up before, and that the water bee not stopt up or hindered from the lower mill."

The court imposed a similar condition when it granted the petition for a third mill in 1679. The mill could be built, "Provyded itt bee in noe way prejudicial or a hindrance to the two lower mills on the same Creeke."

The court, by providing that the later built mills not interfere with earlier structures, was applying the riparian doctrine, which entitles a lower owner to the flow of the water in a stream undiminished and unchanged in quality by upper owners.

Governor Edmund Andros recommended in 1675 that the three courts of Delaware Bay and River examine and repair all mills and their banks, build others at places suitable for mill sites, and pass laws to regulate grinding tolls. An order issued by Andros in 1677 shows the favored position accorded mills. A complaint had been made by certain mill owners in "Christiana Kill" that they had been prevented by the owners of land on each side of the creek from cutting wood thereon for mill repairs. Andros ordered that, ". . . ye persons to whom ye said Mill belongs bee no way hindered butt are to have free liberty to cutt wood for said use, upon any land not in fence according to law."

Similarly, in confirming a grant of land in Brandywine Hundred, Andros added a qualification ". . . provided always that inhabitants of Verdrietes Hooke shall have and enjoy the freedom and privilege of Stony Creeke and the mill they have built in the same manner as formerly."

One of the first cases in Delaware dealing with water rights arose in

1690. It involved a dispute between two land owners on the Brandywine Creek. Cornelius Empson, who owned a mill on that stream, complained to the Board of Property of the Province of Pennsylvania that Hans Peterson was setting up a mill on the opposite side of the creek. It was alleged that Peterson intended to use the water from Empson's dam. The "Proprietary's Commissioners" held that Peterson's action would not only damage the already existing mill but that it was "an Incroachment upon the Proprietary's Prerogative or Privilege the whole right and property of the water of the said creek being in him." Peterson was ordered not to build a mill, "*nor by any means whatsoever Draw the water of the said Creek out of its true and Natural Channell it now runs in or inlarge the same without leave first obtained from the Proprietary, his Agents, or Commis'rs as thow wilt answer the contrary at thy Perrill.*"

There are no reported Delaware cases for the period from 1700 to the Revolution. There were, however, certain laws passed by the Assembly during those years which related to water rights, particularly mill privileges.

A statute enacted in 1719 to encourage the building of mills gave a limited power of condemnation to the owner of land on which he had erected or proposed to erect a mill. If additional land was needed "to perfect or secure" the mill and to "convey the water conveniently to and from" the mill, he could apply to two justices of the peace of the county. The two justices would have six freeholders summoned to determine the "true and intrinsic" value of the land. After a verdict by the freeholders the justices of the peace were to certify the verdict and make a return to the next County Court where it was to remain on record, constitute a transfer of a good title in fee, and create a lien on the millowner's estate for the fair value and damages as determined by the freeholders.

At that time, of course, there were no constitutional barriers to the taking of private property for private use. Had there been, it is likely the legislation would have been upheld. The United States Supreme Court considered a similar state mill act in 1885 and found it proper to assure the reasonable use of riparian lands.

A 1760 supplement to the 1719 act provided that the freeholders should

determine the extent of damage that the new mill might cause to any pre-existing mill, upstream or down. It further authorized the County Court to approve or reject the application, depending upon whether other mills would be injured. Persons erecting mill races, dams or ponds to the injury of others were made liable in damages. In such a case a jury was empowered to decide, if it found damages insufficient, whether the newly built mill race, dam or pond should be removed.

The Act and the supplemental Act were repealed and replaced by the Act of 1773. This provided simply that any person who erected a mill dam, race or pond to the injury of the owner of a previously built mill would be liable for damages. As under the Act of 1760, the jury could find that an offending structure should be removed.

The first reported case involving damage to a mill by the construction of a mill dam upstream was *Jones v. Waples*, decided in 1802. 2 Boorstin's Del. Cases 159 (Common Pleas, Sussex County). Very little information concerning water law is to be gleaned from the report. The court merely charged that it was for the jury to determine whether the upper dam was so injurious that it should be pulled down or whether an award of damages was sufficient. The jury returned a money judgment.

Another action was instituted a few years later by upper riparian owners who claimed that the defendants had built a new dam and raised the water two feet above its usual level, thereby preventing a sufficient fall of water for a mill the plaintiffs intended to build. The court enjoined the defendants from raising the water level beyond its previous height. This action was not brought under the Act of 1773, because the plaintiffs were not owners of an existing mill. Relief was based on principles of equity.

It was held in an early case that the Act of 1773 was a statute in derogation of the common law and, as such was to be strictly construed. Therefore, it was said to apply only to mill dams recently erected to the injury of previous mill owners, and not to the rights of ancient mill holders backing water by raising mill dams already erected.

The first statute after the Revolution applicable to mills was passed in 1819. This provided that the proprietors of upstream mills were to give

reasonable notice to the proprietors of lower mills of the wilful or accidental discharge of any unusual quantity of water from the upper mill dam, and allowed double damages for the injured party.

Two reported cases were initiated pursuant to this Act. In *McIlvaine v. Marshall*, 3 Del. 60 (Super. Ct. 1840), the defendant argued that he was forced to release water to save his own dam, and, even if he had notified the plaintiff, it would have been impossible for the plaintiff to save his dam. The court, in awarding judgment for the plaintiff, held that the gist of the action under the statute was not the injury sustained but the omission of a duty, for which a penalty was imposed, and the defendant failed in this duty. It conceded, however, that where it was necessary for an upstream owner to do everything he could to save his own dam, he would be excused from withdrawing a man from his work force to send a futile message to the lower owner.

Subsequent mill legislation, enacted later in the nineteenth century, provided that mill dams could be raised on non-navigable streams, but could not be erected to the injury of upper or lower mills or upper mill sites. The lands of contiguous owners, through which there was a fall of over three feet, could not be flooded, and the party who desired to erect the dam was required to own at least one side of the stream where the abutment of the dam was to be placed. 11 Del. Laws Ch. 537 (1859).

The owners of mill dams were given the right to petition the court to condemn "earth, sand, gravel, stone or other material requisite for the construction or repair of any lawful dam contiguous to such dam." 13 Del. Laws Ch. 450 (1869). In addition, mill owners could enter upon the lands of others to repair stream banks which had been breached. The law that mill dams not injure upper mills or mill sites was broadened to require that dams be constructed so as not to injure *any* lands above the pond by throwing, holding or forcing the water back. 26 Del. Laws Ch. 176 (1911).

Various statutes were enacted relating to drainage matters. A few of these touched upon the rights of owners of mill ponds. An act was passed in 1869 to provide for the draining and improving of certain low lying lands in Sussex County. By

acting pursuant to this law, six owners of land near a mill pond could petition the Superior Court to drain it if they deemed it desirable for the benefit of their lands. Provision was made for commissioners to view the premises and assess damages, which the petitioners were to pay in equal shares. Any subsequent damming of the stream after removal of the pond was a public nuisance. Private acts were occasionally passed to authorize raising the height of mill dams.

The first case to clearly enunciate the Delaware version of the natural flow doctrine of riparian rights was *Delany v. Boston* in 1839. 2 Del. 289 (Super. Ct.). The defendant's predecessor in title had owned all the land between two streams for some distance upstream from the point where they joined. About sixty years earlier he had cut a canal between the two streams and built a dam across the smaller of them, so as to divert the water through the canal. Some years later the plaintiff built a mill upstream on the creek which had been dammed. The defendant then decided to build a new mill below the original juncture of the two streams. To power this new establishment he removed the dam, blocked the canal, and restored the water to its old course. The effect of this action was to drown out the plaintiff's mill upstream. The defendant claimed the right to divert the water since he owned all the land through which ran both the canal and the old bed of the stream.

The court announced, as a general principle of law, that the prior occupant of a mill seat, established by riparian or legislative grant, has a right to flowage in the stream below his mill for the purpose of venting the waters of his pond according to the natural descent and course of the water. It further stated: "The owner of property adjoining a stream, has a right to the stream, using it so as not to injure any others. He cannot detain it nor divert it from its natural course or descent. If he owns on both sides, he may erect a mill; if he have or can get all the land that the pond will dam, and if the ponding [of] the waters will not back the waters so as to injure anyone above, or detain them so as to injure any below. The water ought to flow in its natural course or descent; if that descent will allow the ponding, it may lawfully be done by the owner of the land to be ponded." 2 Del. 493.

The court pointed out that mill rights could be obtained by long occupation and use, as well as by grant. Furthermore, although the defendant's predecessor in title had no right to open the canal, the upstream riparian proprietors, because of their failure to object for forty or fifty years, had lost their right to complain. Nevertheless, even though the defendant would have had the right to continue the flow through the canal if he had operated the saw mill for twenty years, he had in fact not done so, and, as a consequence, he had no right to use these waters by damming them for a mill. The upstream riparian owners, had, by the lapse of time, acquired an easement in having the waters of the creek flow unobstructedly through the canal. Although they had lost the right to pass the waters in the original channel, they had gained the right to have them flow through the new channel.

Thus riparian rights may be lost by long acquiescence in the wrongful diversion of a stream, and there is no right to have the waters returned to their natural course. The diverter, by adverse use, acquires the legal right to continue to divert. However, the upper riparians may acquire an interest in the *diverted* stream after twenty years* sufficient to block the diverter from returning the stream to its natural course, if such a return would injure them.

In addition, the court stated that the "... law of riparian proprietorship applies to such a new watercourse though artificial, in the same way as to a natural course. The water must flow *ut solebat fluere*, as it has been accustomed to flow."

Note that while the stream in this case was navigable, the court relied upon doctrines applicable to non-navigable streams. Later cases have also recognized the rights of riparian proprietors to the use of such waters, but subject to a superior right in the State to act in the public interest.

The common law doctrine against the diversion of a natural watercourse does not prevent a city from straightening and enclosing a stream where the public health and welfare are at stake. The Chancellor, in *Murphey v.*

* The statutory period for adverse possession.

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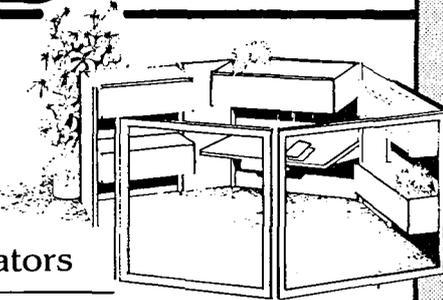
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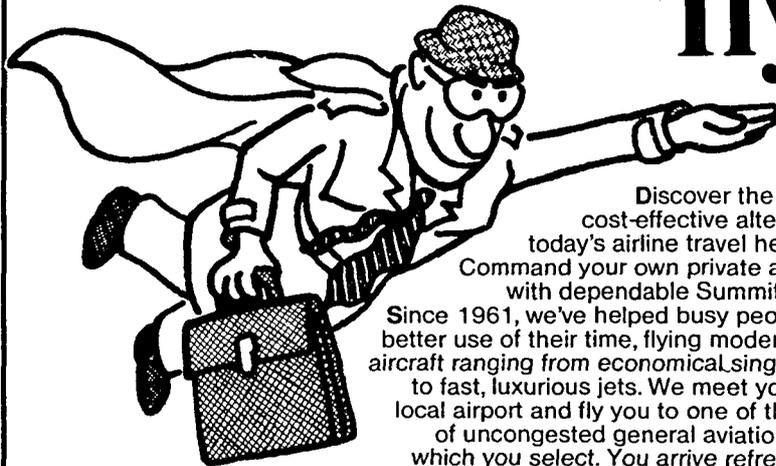
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Wilmington, 5 Del. Ch. 281 (1879), refused to apply the rule where a creek, after wending its way by a sinuous route through the city, passing under sinks, slaughter houses and morocco shops emptied "its filth . . . upon low ground in the midst of the city, . . . endangering the health and comfort of a numerous surrounding population."

The natural flow doctrine has also been applied in cases involving the pollution of natural streams. It was recognized as controlling in *Forman v. Ford* in 1886. 6 Del. Ch. 47. There, a preliminary injunction was granted restraining the defendants, who were erecting a morocco factory on the stream, from polluting it. The plaintiff, a down-stream, riparian owner, had used the water for general agricultural and domestic purposes. The court issued the injunction on the theory that the owner of land through which a stream passes is entitled to the use of the stream in its natural condition.

Evidently, the factory did foul the waters after it was finished, for another action was brought against the same defendant a year later. This time the suit was instituted by a lower riparian industrial user. In granting the injunction, the Chancellor said that the complainant had a legal right to the flow of water in the creek in its natural channel and in its usual volume. Moreover, as a riparian owner he had a legal right to the flow in its accustomed purity, unpolluted by upstream proprietors.

As a general rule, the title to land under non-navigable streams is in the abutting owners and extends, not to the edge, but to the center line of the stream. In some states this is regarded as the geographical center, while in others the path followed by the current is deemed to mark the line. The point has not been directly decided by a Delaware court. Some light was shed, however, by the case of *Redden v. Smith*. 5 Del. 389 (Super. Ct. 1851). At issue there was the construction of a clause in a boundary agreement which recited that a line was to run "one pole from said branch." The beginning point was held to be the middle of the stream and not its margin.

A slightly different aspect of the problem was presented in an 1855 case. Both the plaintiff and defendant claimed title to the bed of an abandoned pond which, when flooded had separated farms. The defendant

claimed only to the thread of the stream; but the plaintiff contended that all the land was his to the high water mark on the defendant's side, on the theory that, since he had used the water of the pond, the land under it was his by adverse possession. All pertinent deeds had either been lost or were unrecorded.

The court, in discussing the kind of possession necessary to give a prescriptive title to land, declared that no act which did not amount to an assertion of right in the soil itself could be evidence of possession. Thus the use of water in a mill pond would not, without more, be evidence of title to the land it covered. Such a use would be connected with the water only. The court stated further that an individual could not own the water but could only hold the right to the use, accumulation and flow of it. Since he could not own the water, the plaintiff could not own the soil it covered. Moreover, the court recognized the common occurrence of the existence of the water privilege in one person and the ownership of the land in another, subject to that privilege. In such a case, the possession of the water would not be adverse at all, but would be consistent with the right of the owner of the soil. Apparently, the only pronouncement by a Delaware court concerning the ownership of water by riparian proprietors is dictum in this case that a riparian owner has no title to water but merely the right to use it.

The law views navigable and tidal waters in a somewhat different light. The ownership of the land beneath such waters is generally held to be in the State, and riparian owners hold title only as far as the high water mark. The law of navigable lakes is of no moment in Delaware as there are no such bodies of water in the State. There are, however, several tidal streams now or formerly navigable. Most of the older cases make no distinction between navigable waters in which the tide ebbs and flows, and non-tidal navigable waters. In Delaware this would be a distinction without a difference, since all navigable watercourses in the State are tidal.

The general rule that gives riparian proprietors on tidal watercourses title to the high water mark was not adopted in the First State. The Superior Court of Delaware ruled in 1851 that a proprietor owns all the land to the low water mark. *Bickel v. Polk*, 5 Del. 325.

Riparian owners of navigable rivers are entitled to accessions to the shore or other gradual accumulations. They lose, however, any land encroached upon by the water. Although a riparian proprietor holds to the low water mark, his title is subject to certain public rights, such as the right to take fish below the high water line. The public also has an interest in maintaining the navigability of such waters. All waters which are capable of use as interstate waterways or as integral parts of such waterways are subject to control by the Federal Government by virtue of the United States Constitution. The states retain control to the extent that Congress has not acted, subject to the superior authority of the United States. Any damage to states or individuals, caused by action of the United States in such waters, is not compensable, unless there is a taking.

The United States Supreme Court, in an early opinion by Chief Justice Marshall, upheld an Act of the Delaware General Assembly which authorized the construction of a dam across Blackbird Creek. It was argued that such a statute conflicted with the power of the United States under the Commerce Clause. The court held, however, that since Congress had made no law controlling state legislation over tidal streams, the Act of the General Assembly could not be considered as "repugnant to the power to regulate commerce in its dormant state, or as being in conflict with any law passed on the subject." *Wilson v. The Blackbird Creek Marsh Co.*, 27 U.S. 245 (1829).

This case furnished the basis for a decision by Delaware's highest court, which found no constitutional restriction on the power of the State to obstruct a navigable stream in the public interest. The court, in *Bailey v. Philadelphia, Wilmington and Baltimore R.R.* Del. 389 (Ct. of Errors & Appeals, 1846), held that a riparian owner on a navigable stream has no right to the perpetual flow of the stream in its natural course uninterrupted by the state. A mill owner on a navigable stream had complained that a bridge, erected by the defendant railroad company pursuant to a special statute, had been built so as to cause water to back up and drown his mill upstream. The action was brought under a section of the statute that permitted a suit by riparian proprietors

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for injuries sustained as a result of improper construction of the bridge.

The plaintiff was held to have no cause of action. The court said that, as navigable waters are the property of the State, an exercise of the power of eminent domain is not prerequisite to State action. The State violates no one's right of property when it uses the waters for a public purpose, even if it deprives individuals of an accustomed use. In regard to private property situated on navigable rivers, the court said: "The owner of such property holds it, subject to this right of the public to use the stream at the will of the legislature; and if, in the use of it, indirect damage arises to such property, it is an inconvenience to which he must submit, unless the State makes compensation as a mere gratuity. It is *damnum absque injuria*"

Riparian rights in a navigable river reappear in *Harlan & Hollingsworth Co. v. Paschall*, 5 Del. Ch. 435 (1882). One riparian proprietor sought to restrain another from extending a wharf to within thirteen feet of the low water line, lest he obstruct navigation and interfere with the plaintiff's use. The proposed wharf

was well within the defendant's land. As a riparian owner of a tidal stream, he owned to the low water mark.

The Chancellor observed, "Riparian rights are always subject to State regulation," and the State has the authority to maintain the river as a public navigable stream. The extent of this authority is such that even a riparian owner may be prevented from using his own property so as to destroy or obstruct the free navigation of the river. Such action would not be regarded as a taking of private property for public use, but merely as an exercise of the State's police power to prevent the creation of a public nuisance. The requested injunction did not issue, because the plaintiff failed to prove that the wharf would obstruct navigation.

Although the law concerning riparian owners prior to 1900 is far from voluminous, it is also quite clear that certain fundamental legal principles became well established, some at a very early period in our history. These principles were of considerable importance in the harnessing of streams for water power, and a knowledge of them enhances our understanding of early industrial growth and development in Delaware. □



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Who Should Pay For Environmental Quality?

Robert H. MacPherson

On August 23, 1982, an overflow crowd jammed the Senate Chambers and Gallery of Legislative Hall in Dover. The reason for the crowd? The Delaware Department of Natural Resources and Environmental Control (DNREC) was holding a public hearing to consider a proposal to collect environmental permit fees.

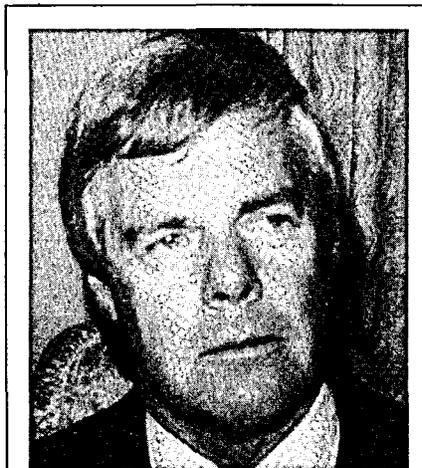
To no one's surprise, ninety-eight percent of those who chose to speak at the hearing were firmly against the imposition of fees. As one put it, "It's yet another tax on business, a road block to economic development." Others made similar outcries: a well driller vehemently objected to the idea of having to "ask my customers for an extra ten bucks," and the representative of a large chemical firm rejected the Department's revenue raising proposal as "outside the authority of the Secretary."

A common theme heard throughout the hearing was that since the general population benefits from the effects of successful environmental management, the general public should pay for it through taxes. Indeed, it was repeatedly remarked, such funds should be fully appropriated by the legislature. Individual industries, business, and private citizens should not be singled out to underwrite governmental regulatory and management programs. Even those at the hearing who showed sympathy and understanding for the Department's proposal, thought fees, if any, should only cover the costs of processing a permit application.

As it was, the Department's proposed fee schedule was not designed to fully cover the costs of its environmental regulatory programs. Annual fee revenues would only constitute

nine percent of budget needs. Nevertheless, to many, fees were looked upon as an unwarranted imposition upon the business community.

Few critics realized that if the "new federalism" continues to mean more responsibility to the states for environmental resources management with a reduction or even the elimination of federal funding, states will have to look elsewhere to fund environmental programs. Potential sources of support to replace federal funds include the state legislatures, local governments, and the private sector.



For the past few years Bob MacPherson has been responsible for environmental and policy development for the Delaware Division of Environmental Control. His experience has borne fruit in the thoughtful—indeed pleasingly philosophical—views expressed below. His recommendations strike us as reflective of the new environmental approach that emerges through the shared experience of government and industry, an approach in which pragmatism is abetted by a more calm and coherent grasp of a very serious problem.

Bob received his degree in political science at the University of Omaha and did graduate work in public administration, with a specialty in environmental management, at the University of Delaware.

State and local government support to maintain funding at those levels enjoyed in the 1970's is highly unlikely. Although additional dollars might be quarried out of state and local legislatures, only the most generous will be able to fully meet the need.

The most logical choice then is to look to the private sector, and in particular to that component that enjoys the (permitted) right to discharge pollutants into "common property resources."

CONSERVATION OF MASS AND COMMON PROPERTY RESOURCES

An elementary principle of physics is that matter cannot be destroyed, except in the most minute amounts. Matter in the form of nature's materials is used by man for fuel and food, and to extract metals and chemical compounds to manufacture products. In using nature's resources, man does not physically destroy them. He does, however, return them to the environment in a different form as "residuals". These residuals can cause damage if man has transformed them into toxic chemicals or concentrated sewage. Wastes otherwise innocuous mix with each other or the atmosphere and are transformed into troublesome new forms, such as smog from auto emission, hydrocarbons collaborating with sunlight and oxides of nitrogen.

Common property resources are such as lakes, rivers, streams, oceans, the air, and other ecological systems, which are not in private ownership but are collectively held by society.

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productivity. Since more output means more pollution (and those increases cannot continue indefinitely in the light of limited natural resources), we must question whether the private economic system is compatible with ecological imperatives.

Barry Commoner, in his book *The Closing Circle*, cites the whaling industry as a paradox between the profitability of a business and its tendency to destroy its own environmental base. The whaling industry has literally driven itself out of business by butchering whales practically into extinction. Commoner goes on to say that although the irresponsible industry will eventually wipe itself out, it may be profitable for the business to do so if the extra profit derived from the business's irresponsible operations is sufficient enough to outweigh the effect of driving the whales to extinction. "The irresponsible entrepreneur," says Commoner, "finds it profitable to kill the goose that lays the golden eggs, so long as the goose lives long enough to provide him with sufficient eggs to pay for the purchase of a new goose."

Technology, which can be directly tied to increases of productivity — and therefore profits — is the link between pollution and profits. Compelled by an inherent zeal to maximize profits, private enterprise is all too eager to use technological means that are often instruments of environmental destruction. As newer, more profitable technologies are developed by industry, pollution intensifies.

The costs of that pollution, on the other hand, are principally borne not by the industry, but by society as a whole. Industry that pollutes the environment is being subsidized by society. For example, when inhabitants in the vicinity of a power plant find that their laundry costs have increased because of the smokestack discharges of soot, their income is essentially reduced. One can say that in such cases the resident's extra laundry costs subsidize the power plant.

If our private enterprise system can only grow at the expense of the ecological base from which it induces its growth, a serious incompatibility between the two exists. If environmental degradation is to be controlled, we shall need changes in the process of production. The newer, highly polluting technologies will be much more

affected by these changes than the older less polluting ones.

In conventional circumstances, the private market system provides incentives for economizing on scarce resources, usually in the form of higher prices for products whose manufacture requires the uses of scarce resources.

Accordingly, industry, motivated by the ever present desire for more profits, finds ways to minimize the use of expensive resources in production processes. However, since the waste assimilatory capacities of air and water as common property resources do not command a price, the private market system encourages their overuse rather than their conservation. For example, the production of bleached household paper products generates ten times more water pollutants than unbleached paper does. Since the paper mill does not pay for pollution discharge, the prices of bleached paper products do not reflect their true costs, and consumers have no incentive to use the unbleached product.

The price system works indeed, but in the wrong way. What the price system is signaling is that the air and water are free goods and therefore, it's "open season" on them. Consequently, industry uses the land and water as a dump for toxic chemicals and other wastes with little thought to the effects on surface waters. In like manner, noxious air pollutants are spewed into the atmosphere instead of being scrubbed or eliminated by expensive processes.

THE INTERVENTION OF GOVERNMENT

In our society government intervenes to one degree or another in the affairs of man as those affairs concern the production and distribution of goods and services. Private entrepreneurial decisions concerning the manufacture of automobiles result in fouled air and suffocating smog. The avarice of some doctors and hospitals escalate the cost of getting sick to the point where government has to step in and say "enough." Private developers, unless restrained by government regulation, are very likely to develop areas where soils and other conditions will cause sewerage facilities to either malfunction or cause extensive contamination of water resources.*

Clearly, the problem of returning residuals to the commonly held resources

of our environment poses a severe problem. Although the private market system may work effectively for other resources, it does not work effectively for environmental resources.

Traditionally, the answer to this dilemma has been for government to develop laws and regulations to limit the private sector's discretion. Although effective to a degree, the regulatory approach provides little incentive for the private sector to arrive at decisions promoting both its self-interest and socially desirable results. The abuse of government subsidized medical costs by physicians is controlled through the passage of ponderous volumes of regulations for Medicaid, not by the medical professional's self-imposed restraint.

In the case of pollution control, a similar external regulatory approach has been necessary. Self-imposed restraint has been all but non-existent. The market system is hell-bent to despoil the commonly held environmental resources in its zeal to maximize profits.

DEFICIENCIES OF THE REGULATORY APPROACH

The regulatory approach has not been noted for effectiveness. In complex areas, such as Medicare and Medicaid, the regulations continue to expand in number and complexity as the regulated physicians and hospitals find loopholes and ways to get around the regulations. These problems are intensified in the case of the management of environmental resources due to the complexity of pollution control problems.

Another deficiency lies in subsidies, which are often granted to the private sector for construction. Federal flood control insurance actually protects private development that should never have been built in flood plains. The nominal charge for this protection only encourages more development in high risk areas. The results — flood damages mount and so do federal subsidies.

In the United States, the problem of disposing of sewage has been addressed principally through the con-

struction of expensive sewage treatment plants through a program that provides up to 75 percent subsidy by the federal government. That program, for most of its existence, has allocated dollars to the states in accordance with population rather than actual need for pollution control.

EFFLUENT OR EMISSION CHARGES IN LIEU OF REGULATION

The price of goods and services in this country have never reflected the true environmental costs imposed by their production and use. We have enjoyed relatively inexpensive automobiles, paper products, chemical products and many other types of goods, all at the cost of a deteriorating environment. Our standard of living has indeed been bought with environmental degradation.

To remedy that degradation, the cost of goods and services, the production and use of which pollute, must rise. Those increased costs will be like an excise tax, under which the most noxious are "assessed" the most. Property taxes would also increase as towns and cities underwrite the construction and operation of sewage treatment plants.

Putting a charge on emissions has a number of advantages over regulation. For example, if an effluent charge of 15 cents a pound for BOD (Biochemical Oxygen Demand — a measure of how well a sewage treatment facility is working) was assessed against a waste discharger, he would be forced to compare the expense of that charge against the cost of reducing his waste discharge. Inasmuch as the costs of removing additional increments of pollutants increases with the percentage of pollutants removed, the discharger would be prudent to go only so far as the point where the incremental costs of pollutant removal equaled the effluent charge. Below that figure, it would be cheaper than the effluent charge; above it, the effluent charge would be cheaper. Regulations that specify a uniform reduction of pollutants of all discharges ignore differences in costs and, thus, produce a much more expensive solution.

If, for example, a 15 cents effluent charge was assessed the discharger for every pound of BOD discharged, the discharger might find it profitable to remove 90 percent of the BOD from

its discharge because the cost of BOD removal would be less than the effluent charge (up to that point). The remaining 10 percent would be discharged, since it would be cheaper to do so than to remove that increment.

If, however, the effluent charge was raised from 15 cents to 20 cents, it would be more profitable for the discharger to remove 95% of the BOD. *In essence, an effluent charge can be set at a figure sufficient to attain any desired degree of pollutant removal.* For any given effluent charge, dischargers would be able to remove a larger percentage of BOD than would dischargers with high removal costs. The end result would be that industry would select the least costly methods of pollution control, treatment of the waste to be discharged, changes in production processes, or the substitution of less environmentally offensive raw materials. Products whose manufacture causes increased pollution would automatically become more expensive. Consumers would be encouraged to buy the least costly, less environmentally harmful products.

The "effluent charge" or fee approach has another advantage over the regulatory: once a discharger has achieved the effluent limits set forth by regulation, he has little incentive to further reduce his discharge, since any additional reduction will cost him more money. Under a fee system, industry would have a lively incentive to devise cheaper ways of still further reducing pollutant discharges.

The effluent charge is sometimes criticized as "selling the right to pollute," which is considered an immoral way of dealing with the benefits of nature. Once, however, it is

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* True, but not exactly a revelation. Readers with long memories will hark back to the "unpolluted" 1920s when that ace real estate hustler, George Babbitt, was thrifly installing inadequate sewage systems in his fancy subdivisions.

agreed that the effluent charge solution does not call for "total" elimination of pollution, some level of pollution remains permissible, and the effluent charge is merely a device for allocating emissions in an efficient fashion.

The effluent charge is no cure-all. A uniform charge per unit of discharge would be appropriate only if the environmental impact costs per unit of discharge were the same. Damage costs differ significantly, depending on where the discharge occurs. An efficient solution requires different rates for different categories of polluters, depending on location and the varying physical characteristics of the waters into which the wastes are discharged.

Should the taxpayer or the polluter pay for environmental quality? Pollution charges will provide both funds on the administration of environmental programs and — more important — an economic deterrant to polluters. Perhaps a national initiative should be undertaken to examine various forms of pollution charges. An initiative should be made, not to hobble the nation's struggling economy, but to maintain environmental sanity.

Unfortunately, the national and global prospects for the environment are not so rosy as the average person thinks. One almost apocalyptic finding of the Council on Environmental Quality should be pondered: "Living resources essential for human survival and sustainable development are increasingly being destroyed or depleted The planet's capacity to support people is being irreversibly reduced in both developed and developing countries."

The "right" to pollute the air and water should be paid for by the polluters, not by general taxation of the public. Pollution charges would provide a considerable incentive for industry to clean up its own shop, while at the same time providing government with the wherewithal to administer environmental control. □

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The Editors.



HELEN L. WINSLOW

Ten years ago, the Delaware Nature Education Society began an inventory of the natural areas remaining in Delaware, with the object of preservation. The result of that ambitious project is *Delaware's Outstanding Natural Areas and Their Preservation*, by Lorraine M. Fleming. It is illustrated with many drawings by Margarita Bredin Brokaw and pictures by several photographers, including the author. The book provides an overview of the 101 spots within the State deemed by the Society most deserving of preservation. The author very candidly admits that the selections were judgmental and that many other spots would be included in a full survey. According to the author, the Society's rationale for limiting the spots was to concentrate public response, in the belief that the goal of preservation might be imperilled by public attention diffused over too many worthy sites. Actually, when reviewing the locations described in the book, I was astonished at the number and variety of natural locations still in existence.

Quite apart from the preservation aspects of the book, the descriptions of the spots alone provide a gold mine for naturalists and hobbyists looking for natural locations to explore. Many of the spots are situated on pri-

BOOK REVIEW:

Delaware's Outstanding Natural Areas and Their Preservation,
by Lorraine M. Fleming, Delaware
Nature Education Society, 1978.
Price: \$15.95

vate land, however, and special permission is required before visiting them.

To demonstrate the urgency of the project, the author explains that two of the spots deemed by the Society most worthy of preservation were destroyed during the course of the inventory. The author tells me that five more have been destroyed since the inventory was completed, and that destruction continues. Happily, however, progress has been made in the other direction. Several areas have been permanently protected, as a result of the book's publication. Many of the private owners of the selected areas have increased their protection of those properties, in some instances by adding protective deed restrictions. State legislators have expressed great interest in protecting areas in their districts. Delaware public planning agencies have also been instrumental in working toward protection of the areas located on publicly owned land.

The book is available at \$15.95 a copy, by mail, from the Delaware Nature Education Society, Ashland Nature Center, Brackenville & Barley Mill Roads, P.O. Box 700, Hockessin, Delaware 19707, or at the Covered Bridge Gift Shop at the Nature Center, from 9:00 a.m. to 3:00 p.m. on Mondays through Saturdays. Profits from the sale of the book are used by the Center for natural area preservation work. □

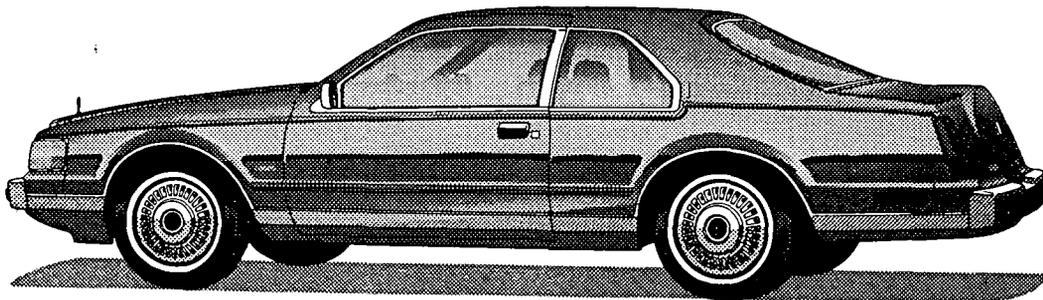
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Dan Slater is Assistant Professor and Director of Graduate Studies in the Department of Communication at the University of Delaware where he teaches courses in mass communication, including "Criminal Justice and the Media." Dan currently serves as Chairperson of the Communication & Law Division of the Eastern Communication Association. He received the Ph.D. in mass communication in 1977 from the University of Oregon. Before joining the Delaware faculty he taught at Penn State University and served as a political and media consultant in California.



Valerie P. Hans is Assistant Professor in the Division of Criminal Justice and Department of Psychology at the University of Delaware where she specializes in the area of psychology and law. She has conducted numerous research studies on factors influencing juries and on public attitudes toward the courts. She is the co-author of *We The Jury: Trials and Tribulations* to be published by Plenum Press. Valerie received the Ph.D. in psychology in 1978 from the University of Toronto and has served as a consultant on jury decision-making for government and in criminal cases.

Cameras in the Courts: Can We Trust the Research?

DAN SLATER AND VALERIE P. HANS

In several recent court cases, television viewers throughout the nation were able to see excerpts of actual trial testimony on network newscasts. From Florida came the charges and countercharges of the Pulitzer divorce and custody battle. More recently, the television audience was able to follow two controversial trials in California. First was the civil trial pitting the Bank of America, executor of the estate of Groucho Marx, against Erin Fleming, Marx's cohabitor. The Bank was seeking to recover monies from Ms. Fleming which it said she obtained illegally. When Ms. Fleming called one of the Bank's attorneys an "assassin" not only the jury heard the outburst, but so did the public. Her diatribe was the centerpiece of that evening's TV news reports about the trial.

The second California case involved a libel suit against CBS and news anchor Dan Rather. The lawsuit resulted from an investigative report on the CBS newsmagazine program "60 Minutes." The trial was covered by numerous broadcast news organizations, including Cable News Network (CNN). Viewers of CNN were able to watch lengthy portions of the trial live, including Dan Rather's now famous defense of CBS News' investigative procedures. Despite the jury verdict in their favor, CBS executives complained about what they saw as biased television coverage of the trial.

These are just a few examples of the growing use of actual trial testimony in television reporting, allowed under rules permitting cameras in the courts. These opportunities for camera coverage have come about as a result of the U.S. Supreme Court's

1981 decision in *Chandler v. Florida*. In that case the Court ruled that each state was free to determine whether to permit "extended media coverage," including camera coverage, in its courts, and to set appropriate guidelines for such coverage. Extended media coverage refers to a recording or broadcasting of trial proceedings by television, radio, photographic, or recording equipment. This is in contrast to "conventional media coverage" which refers to traditional methods of covering courtroom proceedings, i.e., coverage by news reporters without benefit of still photographic, electronic videotape, audiotape recorders or other equipment in the courtroom.

Before adopting permanent rules for camera coverage, most states have conducted one year tests — which they have called "experiments" — during which time camera coverage is permitted, monitored, and evaluated. But what do these "experiments" tell us? What kind of research has been conducted to evaluate the impact of cameras in the courts? We contend that the research conducted so far provides inadequate evidence on which to base permanent rulemaking.

The Delaware Experience

Delaware is one state that recently has wrestled with the issue of cameras in the courts. In 1978 Chief Justice Herrman of the Supreme Court of Delaware, asked the Bar-Bench-Press Conference (BBPC) of Delaware, a group of lawyers, judges, and news media representatives, to study the issue and provide recommendations concerning extended media coverage

of the Delaware courts. On April 22, 1980, the Chief Justice requested that any final report be delayed pending the U.S. Supreme Court's decision in the *Chandler* case. During this period the BBPC received the results of a study it commissioned, which surveyed the attitudes of Delaware judges, attorneys, and news media representatives toward extended coverage. This study concluded that there was "considerable support for a television experiment, particularly among the judges and media representatives" in the sample, but, a majority of the attorneys surveyed opposed change.

On January 26, 1981, the U.S. Supreme Court issued its decision in *Chandler*, which allowed states to decide on camera coverage. Subsequently, the BBPC, on March 16, 1981, submitted its report to the Delaware Supreme Court. The Conference advocated a suspension of rules to permit a one year "experiment." but it did not address the issue of how that test should be evaluated. On September 24, 1981, the Delaware Supreme Court held a hearing to gather public opinion regarding the Conference's report and recommendations. We reviewed the report and testified at the hearing. In line with the BBPC recommendation, we advocated a test period for extended media coverage in Delaware. But we argued also that a true scientific experiment on the effects of camera coverage in Delaware be conducted.

On January 15, 1982, the Court issued its Order that current rules be suspended for a period of one year to permit an "experiment" of extended media coverage, but for *appellate proceedings in the Supreme Court only*. Their rationale for limiting the test to the appellate level was the belief that extended media coverage in trial courts might pose two threats:

(a) possible adverse psychological impact upon the public and upon participants in the trial, especially jurors and witnesses; and (b) possible prejudicial publicity and violation of rights of privacy of participants in the trial, especially of jurors and witnesses.

The Court noted that there was little or no evidence about these potential dangers and observed that an experiment "in the scientifically adequate and acceptable sense of the word —

including scientific controls and scientific evaluation which meet advanced testing techniques and requirements of the social sciences" was the type of research on which "an informed policy judgment" should be based. Yet, in light of the potential adverse effects and the cost of undertaking a true experimental study, the Justices did not lift the ban on cameras in the trial courts of Delaware.

The Court then asked the BBPC to develop a set of guidelines for the one year test of extended media coverage at the appellate level. On April 29, 1982, the Court adopted these rules, and the test year commenced on May 1. The BBPC guidelines specified acceptable equipment and how it was to be used, but they provided no mechanism for evaluating the effect of even this limited test of extended media coverage. On May 2, 1983, the Delaware Supreme Court extended until further notice the rules permitting extended media coverage of appellate court proceedings.

Obviously, this test period has provided us very little information about how cameras affect trial proceedings. At the appellate level there are no witnesses and no jurors, yet these two groups are the object of most concern in writings about the negative effects of cameras in the courts. Furthermore, as evidenced by the experiences in California, the media are primarily interested in covering trials, not appellate proceedings. This point was made clear in the final report produced by the Sacramento-based research firm of Ernest Short & Associates, which conducted the evaluation of California's one-year experiment at both the trial and appellate levels. The limited test permitted by the Delaware Supreme Court leaves us in need of more experiments — at the trial level — for information on which courts can rely.

In spite of the fact that little is known about the impact of cameras in the courts, the American Bar Association, in August, 1982, reversed its longstanding opposition to extended media coverage. According to a report in the September/October 1982 issue of the publication *The News Media and The Law*, 38 states already have adopted rules permitting camera coverage; most of these permit extended coverage at the trial level, and many have permanent rules in place.

For example, Florida adopted permanent rules after conducting an extensive survey of trial participants, including jurors, judges, and attorneys. California extended their test period an additional year after receiving the results of the Short study, which also included a survey of trial participants. The California evaluation also used in-court observers to collect data. In spite of the quality of both surveys, a critical question remains unanswered, because survey research simply cannot answer it. That question is: what effect does coverage with in-court cameras have on judicial proceedings and trial participants beyond conventional media coverage? To "isolate" the influence of camera coverage requires an experimental, rather than a survey design.

An Outline for Research

In our testimony before the Delaware Supreme Court, we outlined a design to evaluate extended media coverage in Delaware, a design which could be adapted for use by researchers in other states. We proposed a true scientific study — a field experiment — involving the random assignment of extended media coverage to trials. Random assignment basically involves flipping a coin to decide whether or not camera coverage would be allowed for a trial. This scientific procedure ensures that an equal number of trials with similar characteristics are represented in both extended media coverage and conventional media coverage groups. Therefore, any difference between the groups can be attributed to the presence of cameras in the courtroom.

Our proposal calls for the following procedures: once the electronic media have expressed interest in covering a trial, and the judge or other authority has declared that extended media coverage will be permitted, that trial is randomly assigned either to the extended media coverage or to the conventional media coverage group. Trials with extended media coverage can then be compared to trials for which extended coverage was requested, approved by the judge, but then for purposes of the research, denied. The process of assignment is random and not biased in any systematic way. With a reasonable number of trials, claims that differences among them were due to the coverage itself and not to

other factors, or that no differences exist, can be supported.

What is a reasonable number of trials? The number of trials necessary for adequate experimental power (the ability of an experiment to reveal true differences between conditions) depends on the variability of the data. The higher the variability, the more trials one must observe. The researcher may estimate the number of trials necessary for the study from information obtained from a pilot study or prior work and a statistical power table.

In such an experimental study, court records, transcripts, in-court observers, and survey data collected from trial participants could be used to test the impact of cameras in the courts. A researcher might explore their effects on decisionmakers, trial participants, and the general courtroom atmosphere. For example, jurors' willingness to serve, as well as their attentiveness, restiveness, length of deliberation, difficulties with the evidence, and reports of the degree to which they were distracted during the trial, could be examined in extended media coverage and conventional coverage trials. The willingness of

witnesses and defendants to testify, in addition to their psychological stress, self-consciousness, and demeanor also could be compared for trials with and without camera coverage. The behavior and reactions of attorneys could be compared. Court observers could assess the effects of cameras in the courts on courtroom atmosphere by noting disruptions attributable to camera coverage above and beyond other sources; they could also note differences in the size of courtroom audiences and the degree of judicial note of the presence of cameras.

Perhaps most critically, trial participants' views of the fairness of the proceedings and the verdict, as well as the existence of successful appeals, may give us additional information about the fairness of trials where there are cameras in the courts. Taken together, these variables, measured within the suggested research design, can assist the researcher in determining the effect of cameras in the courts. Without such experimental controls, conclusions drawn either way may be erroneous.

The experimental research component, to date overlooked, should be

the centerpiece of future research on extended media coverage of the courts. Experimental studies, such as the one we proposed to the Delaware Supreme Court, may reveal adverse effects or they may clear the media of suspected negative influence by more precisely measuring whether differences among similar trials exist. Without such experimental studies, the influence of extended media coverage on the conduct of trials, the behavior of trial participants, and the judicial process cannot be isolated.

It is also important that such research efforts take place in a number of states. No one study, whether survey or experimental, is enough for an informed policy decision. Armed with numerous experimental studies and data already collected in previous research, judges and policymakers can decide the future of extended media coverage with the advantage of fuller empirical evidence. □

* * *

Readers interested in obtaining a more technical report on research procedures on cameras in the courts should write to the authors, care of DELAWARE LAWYER.

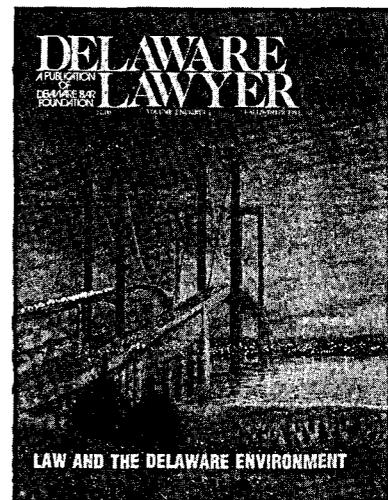
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COVER ARTIST Fall/Winter Issue



Our artist, Janet Rontz, née Staulcup, is a direct descendant of original Swedish settlers in Delaware. (Her cousin, the late General Harry Staulcup, at one time served as Chief of Staff for the Delaware Air National Guard.) Janet studied at the Trenton School of Industrial Art and the Parsons School of Design in New York City. She is a prolific painter, whose landscapes, still-lives, and portraits have been widely exhibited.

The Memoirs of Chief Justice James Pennewill

James Pennewill served as Chief Justice of Delaware from 1909 to 1933. His 36-year tenure as a judge, starting as Superior Court judge in 1897, was one of the longest of any Delaware jurist.

Between 1931 and 1934, as his long service was ending, Chief Justice Pennewill gave three talks to the annual meetings of the Delaware State Bar Association, then held in Rehoboth, which he entitled collectively, "Recollections of Bench and Bar."

In the first of his talks, extracts of which were reprinted in the last issue of DELAWARE LAWYER, Justice Pennewill reminisced about the Kent and Sussex Bench and Bar of the 1870's, 1880's and 1890's with whom he, as a young Dover lawyer, had been in daily contact. His second talk, reprinted here in somewhat condensed form, dealt mostly with New Castle County judges and lawyers. Since his personal acquaintance with the New Castle Bar came for the most part at a later stage in his career, the lawyers and judges whom he discusses are, with a few notable exceptions, those of a slightly later period, around the turn of the century.

Because Justice Pennewill elected not to speak of those still living, many of the great names of the early Twentieth Century Delaware Bench and Bar are omitted from his speech because they were in 1933 at the peaks or twilights of their careers. Thus, Pennewill does not mention Robert H. Richards, considered by many the architect of the Delaware General Corporation Law; Victor B. Woolley, earlier a judge of the Superior Court and in 1933 still a member of the Third Circuit Court of Appeals and author of the "Bible" on Delaware common law practice; Josiah W. Wolcott, who was still Chancellor in 1933; Daniel O. Hastings, who had been a Superior Court judge from 1909 to 1911 and whose active legal career stretched into the 1960's; Charles M. Curtis who had been Chancellor from 1909 to 1921, or Hugh M. Morris, then recently resigned as U.S. District Court judge

PART II

DAVID A. DREXLER

and in the early years of a distinguished post-judicial career.

Somewhat more perplexing was the omission of Chancellor John R. Nicholson whose 15-year term had preceded Curtis's. This omission may be a subtle manifestation of a then existing sub-surface rivalry between the then two virtually autonomous co-chiefs of our judicial system. On the other hand, it may merely be that Chancellor Nicholson was a dull fellow of whom Justice Pennewill, never his day-to-day colleague, could think of nothing colorful to report.

The changes which time has brought about in the practice of law in Delaware during the course of this century are manifest. As will be seen, many of the lawyers of whom Pennewill spoke combined successful legal careers with high public office. Unhappily, this is not the case today. It would be easy to ascribe this change to economic choice alone, in that the rewards of private practice are so great in comparison to those of public



Fellow editor, Dave Drexler, a native New Yorker, has become an authority on Delaware history during his twenty years in the First State. Dave is a member of the firm, Morris, Nichols, Arshst & Tunnell. He specializes in corporate practice and is the author of the BNA monograph on Delaware information, their organization and operation.

service that lawyers choose not to serve. But Pennewill suggests that this economic disparity existed 75 years ago as well. One must surmise that the current dearth of Delaware lawyers in public office also reflects a drop over the years in public regard for the members of the Bar as community leaders, a view perhaps engendered by lawyers themselves in their parochial view of what responsibility to the profession entails. Whatever the causes, the trend is one which Justice Pennewill would have deplored.

There have been significant changes for the better in the Delaware judicial process of which Pennewill does not speak, but which his own career personified. The Delaware Constitution in 1897 established the present 12-year term for judicial appointments. Under earlier constitutions, lifetime tenure had been the rule. Despite the fact that the 1897 Constitution also provided for equal political representation among judges as well, the appointment process became mired in politics. Taking advantage of the opportunity presented by the new Constitution, a Democratic governor had in 1897 thoroughly revamped the judiciary to his liking, reappointing only the Chief Justice, the Chancellor and one of the four then-sitting Superior Court judges. Pennewill himself had been one of the new Superior Court appointees. In 1909 at the end of the first twelve-year term, there was an even greater political shake-up by a Republican governor, who just happened to be Pennewill's younger brother, Simeon S. Pennewill. He replaced the Chief Justice, the Chancellor, and all but one of the Superior Court judges. Pennewill himself was promoted to Chief Justice at this time. A lesser turnover took place in 1921. However, Pennewill was reappointed notwithstanding the nepotistic background of his original accession, and gradually since that time, party politics has had a much smaller role in the reappointment process. Successive governors and General Assemblies have, by and large, been content to reappoint sitting judges who have performed

competently and who are desirous of reappointment. Of the political, judicial and personal turmoil which undoubtedly accompanied the judicial appointment process in his earlier years on the bench, Pennewill says nothing, undoubtedly because he felt such comments to be inappropriate to his theme of fond remembrance.

Justice Pennewill's last talk, which will be excerpted in a succeeding issue of DELAWARE LAWYER came at a 1934 Bar dinner which was also a testimonial to his 36 years of judicial service which had ended in 1933. He spoke then of Delawareans who achieved success as lawyers elsewhere and reflected upon the changes in the practice of law and in living styles generally, which he had seen in his 56 years as a lawyer and judge. He died in 1935.

Justice Pennewill:

In speaking two years ago of the members of the Bar, I spoke particularly of those who had been most active and successful in practice. There were many of ability who were not named, particularly in Kent, including George P. Fisher, who had been District Attorney in the District of Columbia, John B. Pennington, once Attorney General of the State, Beniah Watson, at one time U.S. District Attorney for Delaware, John P. Saulsbury, son of the Chancellor and older than his brother, Willard, who died when still a young man, Elias Reed, a master of sarcasm and ridicule, sometimes the most effective of weapons, William T. Smithers, of most charming personality, General Kenney, very active and successful in practice, also active in military affairs, at one time U.S. Senator, and J. Alexander Fulton.

Of the last named I want to speak at a little greater length because he was unusual. He came to Delaware from Pennsylvania. He had been a member of the Bar in the latter State, and was a lawyer of some experience and age when he came to Dover. He had the largest collection practice I have ever known a member of the Kent Bar to have. He kept in his office a set of books that were a fair abstract of the judgment and mortgage records in the public offices. It used to be said that if the public records should be destroyed Mr. Fulton could easily furnish duplicates. There was in Kent a real estate agent or realtor named Thomas S. Clark, widely

known and universally liked, but his transactions furnished much business for Mr. Fulton. He was the only lawyer that Clark feared. Clark at one time had for sale a farm of very little value but there was on it an old fashioned well that appealed to the man to whom Clark hoped to sell the farm. This man wrote that he would come on a certain day and train to see the farm again and if the water in the well was ice cold he might be a purchaser. Clark was a very resourceful agent and equal to this emergency. He had a wagon load of ice dumped in the well at the proper time and thereby effected the sale. I do not clearly remember what else happened but I know the case was too much for Mr. Fulton, and he was very resourceful too.

It does seem that unlike in recent times, the outstanding members of the profession were men large and impressive physically as well as mentally. And there can be no doubt that such personal characteristics are helpful in professional and public life. The Bayards, Claytons, Saulsburys and Gray were of such build. They were intellectually and physically large. They bulked mightily in the history of the State of which they were for a long time a considerable part. I have heard Judge Grubb,¹ who was of very slight build, say more than once if he had had the physical impressiveness of George Gray he would have accomplished as much and gone as far in public life. Judge Grubb would sometimes, in a company of men, stand on tiptoe to make sure he could be seen.

Judge Wales² was well liked by everybody. He had excellent qualities of head and heart, and was always a gentleman. He was a good Judge but, like others sitting with him, was overshadowed by Gilpin, Chief Justice,³ who was sure to take the lead.

My recollection of Mr. Bayard⁴ is not very distinct; it is only a memory although I heard him try a very important case in the Federal District Court, associated with his son, Thomas, when I was a boy attending school in Wilmington. I don't know which, father or son, was regarded as the greater lawyer, but it is distinct in my memory that the two acting together were considered in legal argument the strongest combination that the Bar of the State could furnish at the time.

A citizen of this State can hardly escape the conviction that the com-

monwealth is exceedingly rich in family influence and history. Indeed it is historically true that the history of Delaware has been written to a great extent by certain families, few in number but strong in influence and control. When we think of the past we necessarily recall the Claytons, the Bayards and the Saulsburys. Some time ago I was asked to name four or five of Delaware's greatest men in her past history. Anyone answering that question would be expected to name first Rodney, and after him perhaps the other "Signers." But while they, and particularly Rodney, are entitled to all the glory and praise that a fond and appreciative posterity can bestow, their public services were confined almost entirely to one important and imperishable act. But measured by long continued public service, great ability, and personal influence, I say that Delaware's most distinguished and useful citizens in public life have been John M. Clayton, Thomas F. Bayard, Willard Saulsbury, and George Gray.

In my previous "recollections" I spoke at some length of Willard Saulsbury, and he is mentioned here only as a member of an unusual family, one of three brothers, each of whom rendered conspicuous service in public life. It was a remarkable trio and no one of them owed much to the other two. Gove Saulsbury was mentally and physically a strong man and had a will and determination of his own. He was for many years perhaps the leading physician in the central part of the State. He was Governor of the State and as such followed his own judgment in the man. He was not as affable as Willard or Eli; indeed in manner he was rather unbending and severe. There was nothing of deceit or insincerity in his nature and friends and foes alike regarded him as a stern but honest man.

The other brother, Eli, I knew him very well in my early days at the Bar. While not as strong as the other two either physically or mentally, he was a very affable and likeable man. The principal reason I speak of these three brothers now is to relate an incident the like of which has not happened in this or any other State before or since. Willard and Gove were engaged in a bitter fight for the United States Senatorship. The contest grew so hot that it became impossible for either to win and the quiet and pacific

Eli slipped in between and secured the coveted prize. The honor, however, remained in the family. It is not likely that a similar contest* will ever be waged again.

Thomas F. Bayard and George Gray⁷ were undoubtedly two of the ablest and most noted men our State has produced. My opinions of them were formed from observing them in the trial of the noted "Cummins Will Case" in Kent County some forty years ago. It was an exceptional case in many respects, and particularly for the number of counsel engaged and the prominence of some of them. From beginning to end the litigation covered a good long time, and during its continuance the following counsel were concerned: Bayard, Gray, Bradford, Ridgely, Robinson and Wolcott. After the retirement of Mr. Bayard, Mr. Gray took me in because he needed some one to do certain work in preparing the case for trial. It was in the performance of that work that I became aware of one marked difference between Bayard and Gray.

I was given all the notes and memoranda prepared by Mr. Bayard and they were almost voluminous. This fact convinced me that he was a man of infinite patience and industry, and a master of details. They were both powerful in argument and Gray could use with great skill and effect the work of another, but had not much relish for the drudgery of the case. He needed someone else to do that work. Bayard could do it unassisted and seemed to take pleasure in its performance. There was but little significance in the result of the trial, so far as the efforts of counsel were concerned, because there was another big lawyer in the case as a witness and the part he played was more effective than the efforts of counsel. N.B. Smithers prepared the instrument in

dispute; he was the star witness at the trial, and was permitted to give his testimony in his own way. His testimony was really an argument of considerable length and when it was concluded the case was practically ended. To the jury, composed of the most prominent citizens of the county, it did not much matter what counsel said in addressing them. I would not dare even intimate which of the two, Bayard or Gray, was the greater. Bayard must have been the better politician, for in my opinion Gray had no liking for practical politics at all. But they were both great as lawyers and statesmen and rendered most valuable public service to nation and state.

In thinking of the lawyers of our State whom I have known during a period of more than fifty years, I have thought of them as individuals and as partners too, singly and in combination. There was one firm that many of you can recall, which to my mind was the strongest for all around work. I mean Bradford and Vandegrift. I have never known any Delaware lawyer superior to Bradford in legal argument or acuteness of intellect. His arguments in Court were so clear and logical that a layman could easily follow him and this could not be said of many of the leading members of the Bar. He made a splendid record as a Federal Judge⁶ and as a lawyer.

I do not believe there has ever been at the Delaware Bar Vandegrift's superior as a trial lawyer. I say this with distinct remembrance of Levi C. Bird and his talents along that line. Bird was more spectacular, dramatic and theatrical, the master showman at any time, but he did not have the driving force, determination and effectiveness of Vandegrift. These qualities were strikingly exemplified in the trial of the Dover bank cases in the Federal court. He tried those cases unassisted, with Bird and Gray representing the defense and never did a prosecuting attorney try cases with greater ability, skill and resourcefulness. I have said he was unassisted at those trials, but he did get some help from the Court's comment on the facts, which was permissible in the Federal Courts. I do not want to leave the impression that Vandegrift was not also strong on the law. He was far above the average lawyer in that regard but his partner was his superior and usually carried the

burden in arguments on the law. Vandegrift died in his very prime, and I have wondered what he might have accomplished if he had lived for many years.

I have mentioned the name of Mr. Bird as an outstanding trial lawyer. He was more than the lawyer and very much more than an ordinary man. We often hear the word "personality" used nowadays. It is not easy to define. If it means something unusual, something rare and arresting, something natural to the man and not possessed by other men, then Bird was the personification of the term. Whether in his office or in his home, in Court or elsewhere, he was the centre of attraction and more noticeable than other men. I have seen him on the boardwalk at Atlantic City attracting more attention than any one else because of his fine, extreme, and costly dress, his commanding presence, and a swagger that was all his own. He was the life of any party, and leader of any cause he espoused. In a word, he was unique, a rare bird, easily approachable and wonderfully popular. He was a splendid trial lawyer and the best cross examiner I ever knew. His questions were few and to the point. He had the rare gift of stopping when he was through and his addresses to the jury were exceedingly brief as a rule.

In speaking of Mr. Bird, I am reminded of another attorney who should have been mentioned in connection with the Kent County Bar. I mean Major Lofland, whose home was in Milford. He was as picturesque as his friend Bird, a good entertainer, popular with all classes, especially the "boys." His clothes were extreme and striking, he was the best dressed man in town, and an oracle as well. He had a good local practice and was unbeatable on the home grounds. The Justice of the Peace before whom he practiced was his friend, believed everything he said, and if referees were demanded Lofland selected them. He occasionally tried a case in Court at Dover and had an audience whenever he did because it was known there would be some fun. He was original and said what he pleased. I heard him say in one case, when commenting on the evidence:

"Who were the plaintiff's witnesses? Who was his star witness? Why, that damned gimlet-eyed Dave Smith. You know him. I will say no

* (Editor's Note: The election described by Justice Pennewill took place in 1871 when U.S. Senators were chosen not by popular vote as now but by vote of state legislatures. Willard Saulsbury had served two prior terms as U.S. Senator and Gove was the just-retired Governor. All three Saulsburys were Democrats, as was the entire General Assembly. Willard Saulsbury was subsequently appointed Chancellor in 1873 by Governor James W. Ponder, his brother-in-law. Despite this and despite the reputation which he had gained as U.S. Senator as one perhaps too fondly acquainted with the bottle, Willard Saulsbury served with great distinction until his death in 1892. His son, Willard, Jr., also a lawyer, served as U.S. Senator during President Woodrow Wilson's term.)

more, and confidently leave the case in your hands.”

I found it was futile to try a case against Lofland in his home town.

Anthony Higgins bulked large in the history of our State for many years, especially in politics. The office of District Attorney started him on the road to ultimate success. The goal and prize for which he worked and fought so long and hard was the U.S. Senatorship. By persistent effort, hard fighting and grim determination he finally accomplished his purpose and his cup was full. His most signal success as a lawyer was in connection with the “Neal case,” wherein he secured from the Supreme Court of the United States a reversal of a conviction in the Delaware Court because no colored man could be on the jury, and thus saved the negro defendant’s life. For many years that was a noted case, but is not so exceptional now.*

In important civil cases Higgins was often assisted by William C. Spruance, later Judge.⁷ He was one of the ablest lawyers in the State and easily ranked with Bayard, Gray and Bradford. If Spruance and Bradford had done nothing more, their work in the Constitutional Convention of 1897 would stamp them as superior and outstanding members of their profession. Spruance became, as all of you know, a member of the Bench and his opinions express what a valuable judge he was. His associates had to reverse him in one case and the younger members wondered in some trepidation what he would say. He expressed his opinion in this breezy but not unpleasant way: “I presume it is thought necessary sometimes to reverse the lower court in order to justify the existence of the Supreme Court.”

My remarks now relate to two other judges who were in most respects as far apart as the poles. They were as unlike as two persons could well be. Chief Justice Lore⁸ was quick in reaching his conclusion, impulsive and impatient of delay. Judge Grubb was deliberate, painstaking and very slow in making up his mind. With these opposites clashes were sure to come. There was no love lost between them anyway. They could not understand one another and made no allowance for constitutional differences. Lore’s disposition was to decide the case at once and very briefly give the reasons therefor. He had decided in his own mind what was the right of the matter and was not bothered by decisions in other states, which he thought were always hopelessly conflicting anyway. The only thing that would stop him was a contrary holding in our own State. Grubb wanted time, and much time, to think about the case and if he wrote the opinion, he did it with the utmost care. It was revised and re-revised until he believed it perfect in substance and form. Lore had plenty of confidence in his opinions which Grubb sometimes called “spitting opinions.” And yet, Grubb said to me one day, “Pennewill, how in the devil is it that Lore can decide so many cases apparently without much thought, and be almost always right? It must be intuition.”

Remembering how he did dispose of business and how rarely he was wrong in his decisions, I think of Mr. Lore as the best trial judge we have had except Gilpin, who was superior to all. Chief Justice Lore was a lovable man and exceedingly popular, especially with the common people. He was kind and helpful, and too

generous and charitable for his own good or that of his family.

Judge Grubb was careful and shrewd. General Wilson, Frank Buck, Levi Bird, George Gray, Willard Saulsbury, Dr. Paynter, and perhaps Boyce and I, were his closest friends. The *hoi polloi* did not appeal to him. In him there was no deceit, insincerity, or any sort of guile. He was as brave as a lion and loyal to his friends.

Judge Grubb had a strong desire to do his full duty, sick or well. It was almost an obsession with him that he had wrecked his health in the public service without any appreciation of the people therefor; but still he would fight to the end, weak as he was. And so one day during the term in Kent, he said to me: “I am too weak to sit up much longer and have arranged to have a couch placed on the bench upon which I shall recline during the afternoon session.”

I asked him if he had mentioned it to Chief Justice Lore. He said he had not, but he did with this result. The Chief said: “Grubb, if you do such a ridiculous thing I shall leave the Bench and will not return until the bed is removed.”

That was the last of the couch episode.

It has not been my purpose in these “recollections” to speak of the living. It is not my purpose to speak of those who have died in recent years, with very few exceptions. But I cannot refrain from saying something about Judge Bayard Heisel.⁹ He was not only a good lawyer and capable Judge; he was truly a lovable character, close and dear to all who knew him well. There was something about his nature and personality that compelled one’s love. He was exception-



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* (Editor’s Note: The “Neal Case” is reported at 103 U.S. Reports 370 (1881). Some indication of the state of criminal justice at the time can be drawn from the fact that the defendant, indicted on May 11, 1880, had been tried and sentenced to hang by May 27. In addition to his legal skills, Higgins exhibited great personal courage in pressing Neal’s appeal. The manner in which the Delaware Supreme Court had earlier rejected his appeal, on openly, indeed outspoken, racist precepts, demonstrates that Higgins was bucking the then deeply-held racial attitudes not only of the working classes but of the “Establishment” of which he was a member. His selection by the General Assembly as U.S. Senator in 1889 shows that, unlike today perhaps, effective representation of unpopular causes was not a disabling political factor in Nineteenth Century Delaware.)

ally popular without trying to be. His face, manner, speech and act inspired confidence and respect. When at the Bar he was an excellent trial lawyer. I have seen but few cases better tried than the Bancroft divorce case in which he represented the defendant, and Whiteman, together with a very able attorney from another state, the plaintiff. It was a very difficult case to try but Bayard was equal to opposing counsel at every stage of the trial.

I never knew anyone with a keener sense of humor than Heisel. Soon after his appointment to the Bench, I had him and the other Judges at my home. He arrived before the others. Mrs. Pennewill had never seen him before, but she had many times seen a Judge who had but little hair on his head. When introduced she thoughtlessly said: "Bless my soul, another bald headed Judge." I never saw any one more amused than he and he told the story many many times. I reckon there will always be at least one bald headed Judge on the Bench.

For want of time I am unable to speak at length of other prominent members of the New Castle Bar long since gone. They played their parts well before leaving the stage, and are gratefully remembered for their usefulness. One of them was Benjamin Niels, a very capable lawyer and business man. He had a host of friends. He was the father and founder of the Security Trust Company in Wilmington, a financial institution that proved the foresight and business judgment of its founder. I remember that Colonel Niels was regarded as invaluable in any social meeting. He had an apt story for any situation and could tell it well. He had no equal in that regard.

I must mention John Rodney and Alexander Cooper. The latter always looked much older than this years. They were as well versed in the rules of practice as any members of the Bar. I was often surprised at the brevity of Rodney's arguments but it would later occur to me—what more could, or need be said? Brief and concise as he was, the court was impressed with the thought that he had given his case serious thought and had it well in hand.

One thing I remember about Rodney and Cooper is that about four o'clock every afternoon they would close their offices and start for New

Castle, their home town. That was, and still is, a very interesting and restful place. It will always be associated in my mind with the administration of the law and that is why I speak of it here. The Old Court House where lawyers fought in olden times is now a tea house of good repute, where excellent food instead of law is dispensed. The City is rich in ancient things and impressive too in a modern way.

There was another lawyer very prominent thirty years ago whom I must notice briefly. Walter Hayes, a very capable attorney with considerable practice. He was contemporary with Ward and was associated with him in many cases. Walter was regarded by many as an encyclopedia of law and certainly he was such in the matter of cases and decisions in his own State. He was at times counsel for Governor Lee and his opinions were highly regarded by him. He was a close friend of Judge Cullen,¹⁰ and opposing counsel had to be up and doing to convince the Judge that Hayes was wrong.

With all the advantages of time and opportunity it does seem there should be noticeable growth and development in our profession, but let me tell you that the bar of fifty years ago was as brilliant in mind and strong in practice as it is today. This is no reflection on the present bar. But when we recall the names of Bayard, Gray, Spruance, Bradford, Smithers, Ridgely and others of almost equal strength, it is manifest that the younger members of the profession must work hard and go far to equal the members of other days. The mark is high, the goal is difficult and the road is long, and they must give the best that is in them to keep the standard as high as it used to be.

The lawyers of fifty years ago to whom I have referred were not only standing at the Bar, they were men of culture—scholarly men. They were active in every good work, and valuable in public affairs. They were proud of their profession and of the government for which it was largely responsible. They had faith in the people and in the supremacy of law. They visioned a future for the country more glorious than the past. We should have the same hope, the same vision and the same faith because this is your land—it is my land—and shall always be our land—to honor, cherish and defend. □

1. Ignatius C. Grubb was appointed Associate Judge of the Superior Court in 1886 and served until 1909.
2. Leonard E. Wales was an Associate Judge of the Superior Court from 1864 to 1884 and a U.S. District Judge for Delaware from 1884 to 1897.
3. Edward W. Gilpin was Chief Justice of Delaware from 1857 to 1876.
4. James A. Bayard was a U.S. Senator from Delaware during the Civil War. A Democrat, he was one of President Lincoln's most outspoken opponents. His son, Thomas F. Bayard, discussed at length by Justice Pennewill, was also a U.S. Senator and served as Secretary of State in President Grover Cleveland's cabinet. His grandson, also Thomas, was U.S. Senator in the 1920's.
5. George Gray was the first Delawarean appointed to the U.S. Court of Appeals for the Third Circuit. He served from 1899 until his resignation in 1914. Since that time the "Delaware" seat on that Court has been held by only three others. Victor B. Woolley, John Biggs, Jr. and, now, Collins J. Seitz.
6. Edward G. Bradford, II was U.S. District Judge from 1897 to 1918. His father had held that office from 1871 to 1884.
7. William C. Spruance was an Associate Judge of the Superior Court from 1897 to 1909.
8. Charles B. Lore was Chief Justice of Delaware from 1897 to 1909.
9. Thomas Bayard Heisel served as Associate Judge of the Superior Court from 1914 until his death in 1921.
10. Charles M. Cullen served as Associate Judge of the Superior Court from 1890 to 1897, when he was not reappointed in the total revamping of the Courts brought about by the adoption of a new Constitution.



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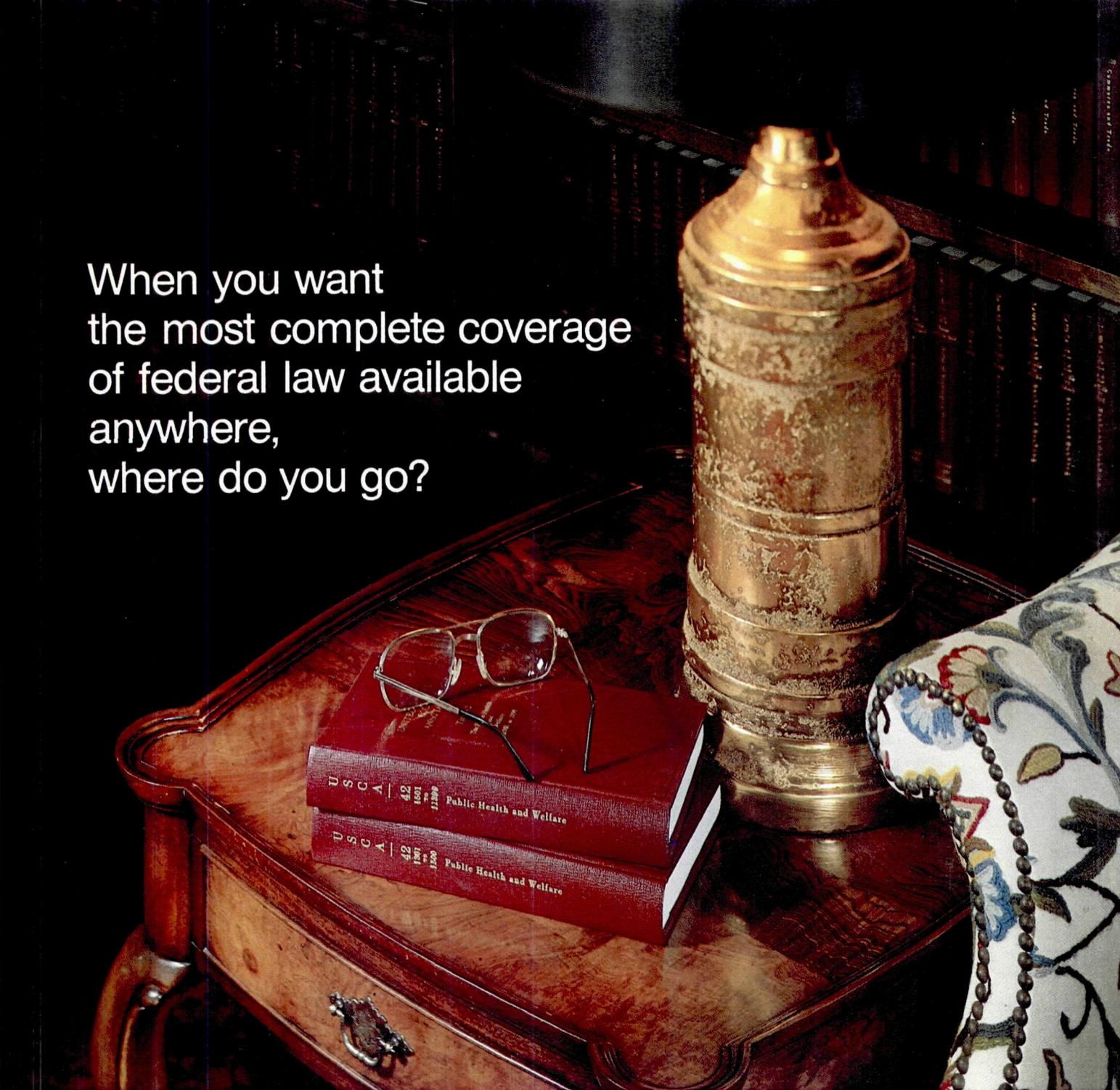
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