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Organizing Themes of Environmental Law

Abstract

This article is designed to assist students and lawyers in their work in the field of Environmental Law; specifically, in the area of preventing and mitigating the effects of pollution. The article begins with the origins of modern environmental law. It briefly summarizes the reasons we have environmental problems and describes the inadequacies of the common law responses. This is key to understanding modern environmental statutes, which are designed to remedy the shortcomings of the common law. The main part of the article sets out the various approaches to remedying those shortcomings and gives examples of environmental statutes which take each of these approaches.

Keywords

Pollution, CERCLA, CWA, CAA, TSCA, National Environmental Policy Act, Environmental Protection Agency, cost-benefit, hazardous waste, environmental statutes

Disciplines

Environmental Law

ORGANIZING THEMES OF ENVIRONMENTAL LAW

by MARCIA R. GELPE†

INTRODUCTION

Environmental law is a new, far-reaching and difficult field. Highly statutory, it involves many complex federal and state statutes and even more complex regulations at both levels. Many lawyers now in practice did not study environmental law in law school.¹ They have entered the field because of their own interests and because of client needs. Even newer lawyers, who took courses in environmental law, probably saw only a small part of the field in their studies.² The demands of their practice probably ask them to go far beyond the limits of their training. Finally, environmental law is still young and changes with almost every legislative session. In short, it is a hard field to understand completely.

This article is designed to assist two groups of lawyers in their work in this field. First, it is addressed to lawyers who practice in one area of environmental law. These lawyers need to know how the areas in which they work relate to the other areas of environmental law, because their work in one area affects clients' interests in another area. Also, specialists in environmental law are often pushed by their clients' needs to expand their areas of environmental practice. Second, this article is addressed to lawyers who have not practiced environmental law, but who are moving into the area. In addition, the article is addressed to students, and most particularly to my students, whose need to understand how things fit together

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1. In fact, the author, who received her law degree in 1974, had no course in Environmental Law. The closest was an excellent course in Water Resources Management at Indiana University School of Law, Bloomington, taught by Professor A. Dan Tarlock, now Professor of Law, Chicago-Kent College of Law.

2. One of my recurring frustrations as a teacher is deciding what to teach in my Environmental Regulation course and how to approach the subject, since I must leave out far more topics than I can include.

has led me to develop this overview of my favorite area of the law.

A lawyer or student who is examining an unfamiliar statute needs to identify the approach the statute takes to the problem of limiting pollution. This will tell the lawyer the main issues to watch for and what features to expect in the statute. Most important, it will give the lawyer an orientation to an otherwise almost impossibly complex set of statutory provisions.

Environmental law, as I use the term here, is the law on preventing and mitigating the effects of pollution. I exclude natural resources law, which is closely related but more directly addresses management of resources such as forests, mineral deposits, wildlife, oil and gas. Modern environmental law is usually dated from 1969, when the federal government enacted the National Environmental Policy Act.³ That statute was followed by the other main federal statutes, including but not limited to: the Clean Air Act (CAA);⁴ the Clean Water Act (CWA);⁵ the Federal Fungicide, Insecticide, and Rodenticide Act (FIFRA);⁶ the Resource Conservation and Recovery Act (RCRA);⁷ the Toxic Substances Control Act (TSCA);⁸ and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund).⁹ States, including Minnesota, have enacted their own comparable statutes.

This article begins with the origins of modern environmental law. It briefly summarizes the reasons we have environmental problems and describes the inadequacies of the common law responses. This is key to understanding the rest of the article, for modern environmental statutes are designed to remedy the shortcomings of the common law. The main part of the article sets out the various approaches to remedying those shortcomings and gives examples of environmental statutes which take each of these approaches.

REASONS FOR POLLUTION

There are two basic reasons for pollution. Many more are

3. 42 U.S.C. §§ 4321-4370a (1982).

4. 42 U.S.C. §§ 7401-7642 (1982 & West Supp. 1990).

5. 33 U.S.C. §§ 1251-1387 (1988).

6. 7 U.S.C. §§ 136-136y (1988).

7. 42 U.S.C. §§ 6901-6991i (1982 & Supp. V 1987).

8. 15 U.S.C. §§ 2601-2654 (1988).

9. 42 U.S.C. §§ 9601-9675 (1982 & Supp. V 1987).

discussed in the literature, but they generally relate to these two basic causes. First, pollution is a classic externalities problem. The people who produce pollution do not have to bear the full cost of the harm it produces. Therefore, they produce more than they would if they incurred all the harm themselves. Second, sometimes even those who bear the harm of pollution do not recognize its cost, due to deficits in information, so they do not make informed choices about how much pollution to produce or to tolerate.

Our common law tort system, which we use in many situations to assign liability to those who cause harm, works poorly in the environmental area. It was not designed to handle the type of long term, subtle effects that many environmental contaminants cause. The tort system deals mainly with single event accidents with acute effects. In addition, the tort system is hungry for information. It depends on good evidence and proof to meet at least the preponderance of evidence standard. This system does not work well to resolve disputes, assign liability, and govern behavior where information is limited.

REGULATORY STANDARDS

“Command and control” regulations are the most common form of environmental laws. In these laws the government decides how much discharge is tolerable and requires facilities to limit their discharges to that amount. The idea is quite simple. Its implementation is not.

First, the government must decide how much discharge to allow. Second, it must express the discharge limit in a way that is meaningful to the type of activity being regulated. Third, it must enforce the discharge limit.

The government has three basic ways to decide how much discharge to allow.¹⁰ The most obvious way is to do what the market would do if it functioned properly. That is: 1) identify the adverse effects caused by the discharge, 2) identify the costs of controlling the discharge, and then 3) limit discharges

10. The analysis of how to decide how much discharge to allow was first developed for a long paper on the subject which will appear in Gelpe, *Deciding How Much to Spend on Environmental Regulation*, MECHKAREI MISHPAT (Spring 1990) (publication of Bar Ilan University, Ramat Gan, Israel) (in press). For the English reader, a shorter version, that is still more detailed than the discussion in the present article, was published in Gelpe, *Environmental Quality: Three Ways to Decide How Much to Spend*, 8 WM. MITCHELL MAG. 35 (Fall 1989).

to the level at which the costs of further control exceed the value of further reducing the adverse effects.¹¹ Usually the costs of control rise with more stringent limitations while the adverse impacts of pollution fall. Assuming that the adverse impacts of uncontrolled pollution exceed the costs of some initial level of control, at some point the control costs will begin to exceed the value of the adverse impacts. That level would be set as the discharge limitation.

These standards, called cost-benefit standards, while simple in theory have proved extremely difficult in practice. Identifying all control costs is very difficult, identifying all environmental effects is even worse, and balancing one against the other is hardest of all. This is not just a matter of comparing apples and oranges; it requires comparing dollars and health. Some statutes seem to require this approach. For example, the federal Environmental Protection Agency must determine that a pesticide "will not generally cause unreasonable adverse effects on the environment" before it allows use of that pesticide.¹² The word "unreasonable" seems to call for a cost-benefit analysis. More frequently, both legislatures and agencies have shied from the task, unwilling to face political and judicial review of decisions based on cost-benefit analysis.

A second way to set command and control standards is to decide what environmental effects should be avoided on some basis independent of the cost of eliminating them, and then simply dictate that discharges be reduced to the level where such environmental impacts will not occur. For example, the legislature can decide to protect public health and dictate that standards be written to limit emissions to those levels which will have no adverse impacts on public health.

11. In theory, identification of both adverse effects of pollution, which when eliminated will become benefits of pollution control, and control costs could include fairness as well as monetary costs. That is, they could include distributional concerns. For example, the fact that inner city residents breathe lead so that suburban-dwelling workers can drive to their jobs is an adverse distributional effect independent of and in addition to the adverse health impacts of the lead in the auto emissions. Similarly, controlling pollution by cutting back factory production has adverse impacts on workers for the benefit of downwind residents, and imposes a distributional effect to the extent that the workers and the residents are different people.

In reality, such distributional effects are rarely considered for either theoretical or practical reasons. A Cost-benefit analysis usually compares the benefits of pollution control, on whomever they fall, with the costs, to whomever pays them.

12. Federal Insecticide, Fungicide and Rodenticide Act, § 3(b)(5), 7 U.S.C. § 136a(b)(5) (1988).

Congress has used this approach several times, requiring what are commonly referred to as health-based or environment-based standards. The Clean Air Act provisions on regulation of hazardous air pollutants require that standards be set at the level which "provides an ample margin of safety to protect the public health."¹³ While such standards have a fine protectionist sound, they do not work very well in practice.¹⁴ The difficulty is in determining the environmental effects of each discharge. In the absence of good information on the discharge-effect relationship, and for most pollutants good information is absent, the only way to really protect the environment is to forbid all discharges. But zero-discharge standards would impose enormous costs on industry and cripple our economy.

Moreover, even when good information on the discharge-effect relationship is available, it is hard to use. What, for example, is meant by a requirement to protect the public health? Does this require protection of only the majority of the public? Certainly not. Some members of the public are more susceptible to environmental pollutants than others. For example, children under four are more susceptible to mental impairment from lead ingestion and inhalation. People with asthma are more susceptible to breathing difficulties from exposure to sulfur dioxide in the air. Clearly we should not set standards that ignore the needs of all children under the age of four, but what of the asthmatics? And if people with asthma are to be protected, what of the smaller number of people with rarer medical conditions even more sensitive to environmental pollutants? If costs are not a factor in deciding permissible dis-

13. Clean Air Act, § 112(b)(1)(B), 42 U.S.C. § 7412(b)(1)(B) (1982). This language was interpreted in *Natural Resources Defense Council v. United States EPA*, 824 F.2d 1146 (D.C. Cir. 1987).

The Clean Water Act gives the Administrator of the Environmental Protection Agency discretion, under certain circumstances, to set standards for toxic water pollutants which "take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms, and the extent to which effective control is being or may be achieved under other regulatory authority." Clean Water Act § 307(a)(2), 33 U.S.C. § 1317(a)(2) (1988). This language, which has not been addressed by any court, seems to call for environment-based standards.

14. Part of the lengthy history of regulatory failure under the Clean Air Act provision quoted in the text is described in *Natural Resources Defense Council v. United States EPA*, 824 F.2d 1146 (D.C. Cir. 1987).

charge levels, how can we draw any line short of one which protects everyone?

While health-based and environment-based standards have proved attractive to legislators, who can boast that they voted to protect the public, whatever the cost, they have proved enormously troublesome in practice. Regulatory agencies have been unable or unwilling to enact such standards, concerned on the one hand with imposing the enormous costs of zero-discharge standards and on the other hand with finding anything short of zero-discharge that is both honest and capable of surviving the rulemaking process and judicial review.

A third type of standard is called a technology-based standard. In this type of standard, the discharge limitation is set at a level that will result if the discharging facility uses the best pollution control technology that is available. These standards have little solid intellectual underpinning, but they appeal to the "let's do the best we can without upsetting things too much" school of common sense, and they are workable. Agencies can pretty well identify what types of pollution control are available and how much control they will provide. While there are still disputes over whether certain technology works and how well it works, the disputes are of a more manageable dimension than with other types of standards. Technology-based standards are perhaps the most common ones in our environmental laws. Two examples are standards for new sources under the Clean Air Act¹⁵ and most effluent limitations under the Clean Water Act.¹⁶

Whatever mechanism the government uses to set command and control standards, these standards can take three different forms. The most common is an emission standard, also called an emission limitation or an effluent limitation. This is a limit on the amount of pollutant that may be discharged from a pipe or stack. A facility that emits more than the allowed amount is subject to enforcement action. Most limits in permits issued under the Clean Air Act, the Clean Water Act, and their state counterparts are emission limitations.

A second, also common, form of standard is the work practice or equipment standard. Instead of stating how much of a pollutant a facility may discharge, this type of standard speci-

15. Clean Air Act § 111(a), 42 U.S.C. § 7411(a) (1982).

16. Clean Water Act § 301, 33 U.S.C. § 1311 (1988).

fies what steps facility operators must observe to reduce discharges. For example, contractors who are demolishing buildings containing certain types of asbestos insulation must wet the asbestos-containing building parts while they are being demolished.¹⁷ The government dictates work practice or equipment standards when it is impractical to set emission standards because of limits on the ability to measure emissions, or because measurement is not practical. Work practice and equipment standards are also common in air and water permits, although less common than emission limitations.

A third kind of standard is the ambient standard. This is a standard limiting the concentration of a pollutant in the environment. Generally, such standards are used as goals or devices to measure the success of other environmental controls. For example, the Clean Air Act requires the Administrator of the Environmental Protection Agency to set national *ambient* air quality standards, which state permissible levels of air pollutants in the air people breathe.¹⁸ States then design plans that limit emissions sufficiently to meet these ambient standards.¹⁹

For practical reasons, ambient standards are usually not directly enforceable. Many sources may contribute to general ambient levels of a pollutant, and assigning responsibility to one source or another is too uncertain to form the basis for enforcement. In some cases, involving rare chemicals, ambient levels may be linked to one source's discharges and may be the basis for enforcement action.

Command and control standards are enforced through an elaborate system that involves all or some of the following: administrative authority to issue compliance orders or impose civil penalties; authorization for the government to seek judicial remedies of injunctions and compliance orders, civil penalties, and criminal fines and jail sentences; and authorization for citizens to seek injunctions, compliance orders and civil penalties in courts.

17. 40 C.F.R. § 61.147 (1989).

18. Clean Air Act § 109(a), (b), 42 U.S.C. § 7409(a), (b) (1982).

19. Clean Air Act § 110(a)(1), (a)(2)(A), (a)(2)(B), 42 U.S.C. § 7410(a)(1), (a)(2)(A), (a)(2)(B) (1982).

PAYMENT

A few environmental statutes use payments to limit pollutant discharges. That is, the discharger is simply paid to reduce or eliminate the discharges.

Payment statutes are usually used in three circumstances: when it appears that the party responsible for the discharge is financially incapable of reducing the discharge or mitigating its effects, when it seems unfair to require the discharging party to bear the cost of discharge reduction and mitigation, or when some other public good can be gained from spending public money on discharge reduction and mitigation. In some cases, more than one of these situations co-exist.

The Minnesota Waste Tire Program pays owners of tire dumps to take waste tires to tire processing facilities.²⁰ The legislature was apparently concerned that many owners of tire piles would be financially unable to remove the tires, and the tire piles would be breeding grounds for mosquitoes and pose the risk of serious fires, which are difficult to extinguish. In another state payment program, under the Minnesota Petroleum Tank Release Cleanup Act, the state pays most of the costs incurred by a person who cleans up a release from a leaking petroleum tank.²¹

The federal grants program under the Clean Water Act, which began in 1972 and is now being phased out,²² is a good example of a payment program that was probably designed at least in part to obtain another public good; that is, one other than discharge reduction. This program has been viewed as a public works program as well as part of a pollution control plan.²³

CHARGES

An almost opposite approach to pollution problems is to charge dischargers. Firms that discharge pollutants must pay in order to be able to continue discharging.

The laws actually reveal two quite different sets of charge schemes. Although they tend to look similar in that in both

20. MINN. R. § 9220.0170 (1989).

21. MINN. STAT. § 115C.09 (Supp. 1989).

22. Clean Water Act § 205, 33 U.S.C. § 1285 (1988).

23. See Gelpe, *Pollution Control Laws Against Public Facilities*, 13 HARV. ENVTL. L. REV. 69, 77 (1989).

cases, the polluter pays, their underlying rationales and therefore some of their practical features are quite different.

The first is what I will call the "pure charge scheme." Pollution imposes costs on others. Our property and economic systems fail to make the polluter pay these costs, so the polluter is free to disregard them in deciding how much goods to produce and how to produce them. Therefore, polluters make decisions causing pollution which they would not make if they had to pay the full costs of their pollution.

A pure charge scheme is theoretically very simple. It charges the polluter for the costs it imposes on others. This simply corrects the defects in the property and economic systems by substituting a charge imposed by government instead of by private systems.

A pure charge system is practically impossible. I know of no complete pure charge system. In order to have a pure charge system, the government must know what pollution a firm is discharging and what environmental effects that pollution causes. The government must also be able to put a monetary value on those effects. For reasons already discussed, the government never has this much information. Furthermore, in a pure charge scheme, each time the firm changed its discharges, for example by lowering them in order to avoid part of the charges, the environmental effects would have to be reconsidered and revalued. This requires more information than we have and is so complex that the administrative costs are prohibitive.

Nonetheless, there are some partial pure charge schemes. These are schemes predicated on the rationale of charging back part of the environmental costs of firms' discharges. The schemes differ in which costs they charge back and in how closely they require that the costs charged be associated with a firm's activities.

The Minnesota permit fees are one example of a partial pure charge scheme. One cost of discharging is the public cost of regulating the discharges. Part of that public cost is the cost to the state for writing discharge permits and enforcing these permits. Under Minnesota law, firms that have permits for air or water discharges, or that handle hazardous wastes, must pay permit fees that cover the costs of permit writing and

enforcement.²⁴

This is far from a complete or pure charge scheme. Only public regulatory costs are charged, and then only some of those costs. The costs of developing the regulatory programs, for example, are not included. Moreover, the relationship between the costs caused by an individual source and the amount it must pay is loose. Sources are grouped by total amount of pollutants discharged, and not cost of permit development and enforcement. In general, it is costlier to write permits for sources that discharge a lot of pollutants, so there is a valid relationship between the charge and the effect. But on a finer level, some large volume dischargers are more easily and cheaply regulated than others, and the charge scheme does not distinguish between them. There is good reason for the failure to distinguish; the administrative costs of assigning the precisely correct charge to each source would be prohibitive.

Other charge schemes have an even looser association between the amount of the charge and the environmental effects. Under the federal Superfund law, those who manufacture, produce or import certain chemicals must pay a tax based on the weight of the chemicals they sell.²⁵ The money collected is used, along with other funds, to clean up hazardous waste sites.²⁶ While this tax imposes part of the cost of cleaning up chemical spills on those who initially benefit from the sale of similar chemicals, it makes no effort to distinguish between producers whose products are carefully handled and not spilled and those who knowingly sell to firms that mishandle and spill the product. Moreover, today's producers are being charged on the basis of current production for yesterday's spills, although it is obvious that current production does not cause the environmental harm for which the charge is compensating.

This brings us to the second type of charge scheme, which I will call a regulatory charge scheme. Some charge schemes are designed mainly to increase the cost of discharging, as a way of encouraging firms to reduce their discharges. By making it

24. MINN. R. ch. 7002 (1989) (air and water permit fees) and MINN. R. § 7046.0020 (1989) (hazardous waste permit fees).

25. 26 U.S.C. § 4661(a), (b) (1988).

26. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) § 111(a), 42 U.S.C. § 9611(a) (Supp. V 1987).

more expensive to discharge, government works to have discharges reduced without the elaborate government rulemaking, permitting and enforcement mechanism that accompanies regulatory schemes. The theory is that it is easier to calculate charges that will lead to a desired level of discharge reduction than it is to devise regulations to accomplish the same goal. The premises are: 1) if the amount of discharge reduction that a scheme will yield is miscalculated or if the government, based on new information or new choices about how clean to make the environment, changes the goal, it is easier to adjust a charge scheme than a regulatory scheme; and 2) it is easier to collect charges from firms accustomed to making regularized payments in other contexts, such as taxes, than it is to enforce regulatory standards.

Despite considerable advocacy of such charge schemes in the literature, and the greater simplicity as compared to pure charge schemes, these charges have not been used extensively. The Superfund tax, described above, has some aspects of a charge scheme of this type. One of the effects of the tax is to encourage chemical feedstock manufacturers to reduce their production of those chemicals subject to taxation. Still, none of the major environmental statutes now on the books is really designed as a regulatory charge scheme. But the considerable attention such charges have obtained in the literature, and the growing dissatisfaction with the costs and complexity of traditional regulatory statutes, suggest that regulatory charge schemes will be enacted in the future.²⁷

CHANGES IN COMMON LAW

The environmental statutes discussed thus far supplement common law mechanisms by providing new and different mechanisms for pollution control. They are designed to surmount common law shortcomings by replacing the common law with new statutory schemes. Other environmental statutes are designed to cure common law shortcomings. These statutes focus on one or more of the features of the common law that makes it of limited utility in controlling pollution and al-

27. The California legislature is now considering a plan to rebate state sales taxes on low polluting cars and impose a surcharge on high polluting cars. *Wall St. J.*, May 7, 1990, at B1, col. 3.

ters that feature of the common law by statute. Some of the statutory alterations are simple; others are elaborate.

The Minnesota Environmental Rights Act (MERA),²⁸ and similar legislation in other states, take aim at a peculiar shortcoming in the common law that was not mentioned above; that is the difficulty of a private individual bringing a public nuisance action under common law. The usual rule is that a plaintiff who suffers the same type of harm as other members of the public may not bring a public nuisance action. MERA and other similar statutes give members of the public standing to bring such actions.²⁹ This makes public nuisance law a better tool for pursuing polluters.

The Superfund laws also are designed in part to alter common law actions. One of the basic difficulties of using the common law to clean up hazardous waste sites was the necessity to litigate first. A court could order that a site be cleaned up only after an often difficult determination of who was responsible for the waste at the site. While the judicial process was ongoing, wastes would continue to leak and the problem got worse. One of the basic features of the Superfund laws is to provide a mechanism for the state to clean up first and then litigate liability later.³⁰ While the laws contain a number of related, complex features, the underlying philosophy is to alter the common law. The Superfund laws are basically common law variants in other ways, as well. For example, they provide strict, joint and several liability for clean up costs,³¹ thus bypassing the need for a court to determine whether application of strict, joint and several liability is appropriate.

CHANGES IN MARKET MECHANISMS

Some statutes, instead of changing how the common law works, change the conditions in which the law operates. For example, one of the reasons that environmental problems arise is that information on environmental effects of pollutants is

28. MINN. STAT. §§ 116B.01-.13 (1988).

29. The Minnesota provision is MINN. STAT. § 116B.03, subd. 1 (1988).

30. See MINN. STAT. § 115B.17, subds. 1, 6 (1988); see also CERCLA §§ 104(a)(1), 107(a), 42 U.S.C. §§ 9604(a)(1), 9607(a) (Supp. V 1987).

31. The state statute is explicit on this matter; the federal statute is not. For two of the numerous cases interpreting the federal provision, see *O'Neil v. Picillo*, 883 F.2d 176 (1st Cir. 1989) and *City of Philadelphia v. Stephen Chem. Co.*, 544 F. Supp. 1135, 1140 n.4 (E.D. Pa. 1982).

hard to obtain. Several laws are designed to produce more information, putting the burden of information production on the firm producing the pollutant. With the information provided, both litigation and regulation are easier. More than that, development of the required information also reduces the externalities problem. Once a firm sees the new information that the law has forced it to develop, the firm itself will have a greater understanding of the environmental effects of its activities and its potential liabilities. This provides an incentive to reduce pollution without either litigation or regulation.

An example is found in the community right-to-know provisions of SARA.³² Certain companies that manufacture, process or use toxic chemicals must report the nature and amount of such chemicals³³ to the government and to the public.³⁴

Another type of legal change attacks a different underlying problem. One reason firms have little incentive to reduce pollution absent pollution control laws is that the firms gain little or no benefit from the substantial expenditures often required for pollution reduction. Because the adverse environmental effects are externalities, a firm does not capture the benefit of reducing the effects. Some laws, still in a rudimentary state, are designed to allow the firms to reap some of the benefits of their pollution reduction efforts. These laws give a firm that has reduced emissions a type of property right in the reduction. A firm that has reduced emissions can save this property right for future use or sell it to others.

The Environmental Protection Agency has established a mechanism for saving and selling this type of right in its Emissions Trading Policy Statement under the Clean Air Act.³⁵ These provisions are still weak in several ways. The fact that future changes in the law can wipe out saved rights reduces the value of these rights. Also, the trading of the rights has been heavily regulated, in part because pollution at the site where it was reduced may not be equivalent to pollution at the site where it is to be used.³⁶ Still, the concept is intriguing and may

32. Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §§ 11001-50 (Supp. V 1987) (enacted as and commonly referred to as SARA Title III (Superfund Amendment and Reauthorization Act Title III)).

33. 42 U.S.C. § 11023 (Supp. V 1987).

34. 42 U.S.C. § 11044 (Supp. V 1987).

35. 47 Fed. Reg. 15,075 (Apr. 7, 1982).

36. See 47 Fed. Reg. 15,082 (Apr. 7, 1982).

provide the basis for future developments.

PLANNING

One of the long standing mechanisms for controlling pollution problems has been to prevent them by prior planning. The zoning laws stem in part from a desire to prevent nuisances from occurring by separating incompatible land uses. Modern environmental laws have pursued this theme of pollution prevention through planning.

The National Environmental Policy Act³⁷ is the oldest of the current generation of environmental statutes. It is an excellent example of a law designed as a planning tool. The basic philosophy of the law, and comparable state laws,³⁸ is that government agencies should identify and consider the environmental effects of their activities before they undertake them. The Minnesota statutes on county solid waste planning³⁹ are another example of planning laws.

One general difficulty with planning laws is that they may not prevent pollution problems. The provisions in the laws for enforcement of environmental perogatives are typically weak. Planning laws generally depend on the philosophy that if environmental problems are identified, people will work to mitigate them.

CONCLUSION

This article has set out an overview of the environmental statutes. It concentrates on the differing approaches used by the various statutes. With this overview in mind, a practicing lawyer should be able to more easily understand a statutory provision that is new to the lawyer and see how various provisions relate to each other.

37. 42 U.S.C. §§ 4321-4370(a) (1982).

38. *E.g.*, Minnesota State Environmental Policy Act, MINN. STAT. §§ 116D.01-.07 (1988).

39. MINN. STAT. § 115A.42-.46 (1988).