ISSUES IN ENVIRONMENTAL LAW

ARTICLE & ESSAY

A CONSTITUTIONAL RIGHT TO A HEALTHFUL ENVIRONMENT

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INTRODUCTION

The words of Charles Dickens, "[i]t was the best of times, it was the worst of times,"[1] properly characterize the present state of constitutional rights for protection of the environment. On the international stage, constitution makers from countries as different as Canada and Bulgaria are proposing new environmental constitutional language.[2] At the same time, serious unchecked environmental problems have been uncovered in both nations.[3] The irony of high flown statements of rights combined with environmental abuses was highlighted when the Soviet Union recently issued a statement of rights, including environmental rights, just before its collapse![4]

In the late 1960s, the topic of a United States constitutional

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1. CHARLES DICKENS, A TALE OF TWO CITIES 1 (1859).

2. BULG. CONST. art. LV (July 12, 1991). Article LV reads: "Citizens shall have the right to a healthy and favorable environment corresponding to established standards and norms. They shall protect the environment." *Id. See also* P. S. Elder, *Sustainability*, 36 MCGILL L.J. 831 (1991) (describing the law in Canada); SATISH SHASTRI, POLLUTION AND THE ENVIRONMENTAL LAW 36-45 (1990) (describing India's strong constitutional protections of the environment).

3. ECOLOGY VERSUS POLITICS IN CANADA (William Leiss ed., 1979).

4. The text of rights provided, inter alia, that "[e]very person has the right to health protection . . . [and that every] person has the right to a favorable natural environment and to compensation of damage incurred to his health or property by ecological violations." *Soviet Turmoil*, N.Y. TIMES, Sept. 7, 1991, at A5.

right to a decent environment was fashionable.[5] It then faded like the smile of a Cheshire cat, only to be renewed at the end of the 1970s. Now, some environmental leaders have once again renewed the cry for a federal constitutional right to a decent environment.[6] In our constitutionally conservative era, the adoption of such a right in the federal Constitution, either by amendment or through expansive judicial interpretation is unlikely. The United States continues to address domestic environmental problems through the adoption of complex statutes and regulations, with citizen rights protected by statutory citizen suit provisions designed to assure full enforcement of the statutes.[7]

Why discuss again the constitutional right to a healthful environment? One of the principal functions of a constitution is to define, allocate, and limit the powers of government. One of the major powers of modern government is the power to pollute. In the 1970s, municipal governments and their inadequate sewer treatment facilities were a major source of water pollution.[8] In the 1980s, environmentalists fought with government authorities such as the Tennessee Valley Authority, seeking to make them clean up

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5. The Earth Day era inspired grand statements of environmental ideals, and constitutional rights to a decent environment seemed to match this fervor. *See* VICTOR SCHEFFER, THE SHAPING OF ENVIRONMENTALISM IN AMERICA (1991) (providing an account of that period); E. F. Roberts, *The Right to a Decent Environment: Progress Along a Constitutional Avenue*, *in* LAW AND THE ENVIRONMENT 134-65 (Malcolm Baldwin & James Page eds., 1970) (providing a thoughtful early discussion of such an amendment). *See also* Ronald E. Klipsch, *Aspects of a Constitutional Right to a Habitable Environment: Toward Environmental Due Process*, 49 INDIANA L.J. 203 (1974); William Kirchick, *The Continuing Search for a Constitutionally Protected Environment*, 4 ENVTL. AFFAIRS 515 (1975).

6. *See, e.g.*, Lynton K. Caldwell, *The Case for an Amendment to the Constitution of the United States for Protection of the Environment*, 1 DUKE ENVTL. LAW & POL'Y F. 1 (1991); *see also*, THE COMPREHENSIVE ENVIRONMENTAL AMENDMENT PROJECT, ENVIRONMENTAL AMENDMENT CIRCULAR (Marshall Massey ed., Apr. 1989); THE COMPREHENSIVE ENVIRONMENTAL AMENDMENT PROJECT, ENVIRONMENTAL AMENDMENT CIRCULAR No. 2 (Marshall Massey ed., June 1989); THE COMPREHENSIVE ENVIRONMENTAL AMENDMENT PROJECT, ENVIRONMENTAL AMENDMENT CIRCULAR No. 3 (Marshall Massey ed., Oct. 1989); THE COMPREHENSIVE ENVIRONMENTAL AMENDMENT PROJECT, ENVIRONMENTAL AMENDMENT CIRCULAR No. 4 (Marshall Massey ed., June 1991).

7. The *Scenic Hudson* case and the early cases involving "standing" issues have historical and legal significance because these cases establish a pattern by which individuals can bring court action to protect the environment under the Administrative Procedure Act, 5 U.S.C. §§ 701-706 (1988), or the substantive provisions of an environmental statute. In effect, statutory provisions substitute for constitutional provisions. *See* Scenic Hudson Preservation Conference v. F.P.C., 354 F.2d 608 (2d Cir. 1965).

8. *Council on Environmental Quality Ninth Annual Report (1978), reprinted in* ENVIRONMENTAL PROTECTION: LAW AND POLICY 331-36 (Frederick Anderson et al. eds., 1989).

their acts.[9] In the 1990s, the cleanup of major governmental nuclear processing facilities will be a high-priority task.[10]

In addition, government can harm individuals indirectly through sponsorship or subsidy of private action. With the expansion of government grants, contracts, and permitting activities, and with its control over the allocation and distribution of wealth in the form of "new property,"[11] government's participation in the polluting activities of allegedly "private" corporations has grown.[12] A "private" corporation, with a public charter, government contracts and incentives, and a government-granted permit "to pollute," may be a vehicle for state pollution.[13]

Even if government proprietary activities do not pollute, and charters, grants, contracts and permits do not encourage corporations to pollute, governments may simply fail to carry out their required duties. The system of regulations may fail for myriad reasons: agency capture, bureaucratic mismanagement, inappropriate standardization, unreliable information, distortions from litigation or threat of litigation, costs of administration, incorrect standards and their mistaken application, "discrimination" against new facilities, political intervention, economic corruption, and lack of legitimacy.[14]

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9. ROBERT DURNAT, WHEN GOVERNMENT REGULATES ITSELF: EPA, TVA AND POLLUTION CONTROL IN THE 1970'S (1985).

10. *See, e.g.*, Matthew L. Wald, *U.S. Raises Cost Estimates of Weapons Sites Cleanup*, N.Y. TIMES, Sept. 6, 1991, at A18; Matthew L. Wald, *Wider Peril Found in Nuclear Waste from Bomb Making*, N.Y. TIMES, Mar. 28, 1991, at A1; Keith Schneider, *Study Foresees Closing Most Nuclear Arms Plants*, N.Y. TIMES, Feb. 7, 1991, at B12.

11. Charles Reich, *The New Property*, 73 YALE L.J. 733 (1964).

12. The extent to which corporations are "private" is, of course, much debated. The Dartmouth College case is a key case in this regard. *See* Trustees of Dartmouth College v. Woodward, 17 U.S. (4 Wheat.) 518 (1819). Some constitutional theorists have vigorously and, I believe, properly, questioned the view of the corporation as private. ARTHUR MILLER, THE MODERN CORPORATE STATE: PRIVATE GOVERNMENTS AND THE AMERICAN CONSTITUTION (1976).

13. Under environmental statutes, specifically the National Environmental Policy Act, 42 U.S.C. §§ 4321-4370 (1988), the broad reach of government is recognized by the court and regulatory definitions of major federal government action, which extend to "[a]ctions . . . [s]upported in whole or in part through Federal contracts, grants, subsidies, loans or other forms of funding assistance . . . " and include federal permits. Interim Guidelines, 35 Fed. Reg. 7391 (1970).

14. *See* BRUCE ACKERMAN et al., THE UNCERTAIN SEARCH FOR ENVIRONMENTAL QUALITY (1974) (discussing in detail such failures in the context of one pollution circumstance). The effectiveness of statutes has also been affected by deregulation. *See* Philip Weinberg, *Masquerade for Privilege: Deregulation Undermining Environmental Protection*, 45 WASH. & LEE L. REV. 1321 (1988); *see also* Lynda Butler, *State Environmental Programs: A Study in*

Social, political, and economic theories have been offered to suggest the probability of government malfunction.[15] Public choice theories of congressional log rolling, bureaucratic empire building, and enforcement cost saving are examples offered to explain many of the government's shortfalls.[16] Whatever the reason, more pollution traceable to government is the result.

Legal control of the government's polluting activities can be sought through common law, statutory, and constitutional avenues. Citizens can bring nuisance[17] or public trust common law claims[18] in an effort to curb government actions, but statutory preemption seriously limits such common law actions.[19] Public facility control provisions, citizen suit provisions within environmental laws, and some state public trust statutes operate to curb some government abuses.[20] However, citizen suit provisions are seriously limited in

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Political Influence and Regulatory Failure, 31 WM. & MARY L. REV. 823 (1990); Alyson Flournoy, *Legislating Action: Asking the Wrong Questions in Protective Environmental Decisionmaking*, 15 HARV. ENVTL. L. REV. 327 (1991).

15. The social theories may be found in theories of bureaucracy beginning with Max Weber. Political theories of bureaucracy and its malfunctions abound. Most recently, economic theories of government malfunctions have been offered. JOHN BADEN & RICHARD STROUP, BUREAUCRACY VS. ENVIRONMENT: THE ENVIRONMENTAL COSTS OF BUREAUCRATIC GOVERNANCE (1981). *See* THOMAS HOBAN & RICHARD BROOKS, GREEN JUSTICE: THE ENVIRONMENT AND THE COURTS 85-87 (1987) (a brief discussion of the relationship of bureaucratic theories to environmental protection).

16. BADEN & STROUP, *supra* note 15.

17. A fundamental practical problem with nuisance actions as devices to protect environmental rights is the diffuse nature of environmental harms which makes private bargaining based upon common law rights allocation difficult. Ronald Coase, *The Problem of Social Cost*, 3 J.L. & ECON., 1, 1-19 (1960). Moreover, some rights, it may be argued, should not be "balanced" but deserve unyielding protection. *See, e.g.*, Wilsonville v. SCA Services, Inc., 426 N.E.2d 824 (Ill. 1981).

18. Common law public trust may offer the closest common law approximation to constitutional rights to a decent environment. The trust is on behalf of the public, and extends to future generations. In practice, the trust doctrine is limited. *See* PUTTING THE PUBLIC TRUST DOCTRINE TO WORK: THE APPLICATION OF THE PUBLIC TRUST DOCTRINE TO THE MANAGEMENT OF LANDS, WATERS AND LIVING RESOURCES OF THE COASTAL STATES (David C. Slade ed., 1990) (detailing the multitude of cases).

19. The past 50 years have witnessed the growth of comprehensive federal statutory schemes, which often are determined to preempt the decentralized state based common law remedies. However, the federal statutes seldom provide compensation and corrective justice for persons harmed by past pollution. *See* JOSEPH ZIMMERMAN, FEDERAL PREEMPTION: THE SILENT REVOLUTION (1991) (a recent overview of the law and politics of preemption).

20. Federal environmental statutes may include provisions for controlling pollution from federal facilities. *See, e.g.*, The Clean Air Act, § 118, 42 U.S.C.A. § 7418 (West 1983 & Supp. 1991). *See also* Nancy E. Milsten, Note, *How Well Can States Enforce Their Environmental Laws When the Polluter is the United States Government?*, 18 RUTGERS L.J. 1234 (1986).

their applicability to discretionary activity of government offices.[21] In addition, public trust statutes appear to lack the motivating legitimacy to inspire legal action, with some exceptions.[22] As a consequence, many states do not implement their public trust statutes.[23] These deficiencies in common law and statutory controls prompt an inquiry into whether modern constitutions can play a role in limiting ongoing government pollution.

An exploration of a constitutional right to a healthful environment reveals fundamental limitations in our current domestic environmental law regime. I argue that the current federal environmental law regime fails to portray clearly the reality that our citizens' substantive rights to protection of health and life are continuing to be violated by government-related actions, and that a full and fair remedy is often not forthcoming through statutory protections. Consequently, some form of a constitutional right to a healthful environment is needed.

The traditional proposals for securing these substantive rights through a federal environmental civil right ignore the modern scientific basis for environmental protection. Proponents for such a right fail to craft the kind of constitutional provision suited to the modern science which must underlie modern environmental protection. I propose the adoption of a complex state environmental constitutional provision which is more in harmony with our traditions and with the conclusions of ecology, more appropriate to the control of public environmental abuses, and more feasible for states to adopt and enforce. It is instructive, however, to examine first the attempt on the federal level.

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21. Section 304(a)(2) of the Clean Air Act provides: "[A]ny person may commence a civil action on his own behalf . . . against the Administrator where there is alleged a failure of the Administrator to perform any act or duty . . . which is not discretionary with the Administrator." 42 U.S.C.A. § 7604(a)(2) (West 1983 & Supp. 1991).

22. CONN. GEN. STAT. ANN. §§ 22a-14 to 22a-20 (West 1991); FLA. STAT. ANN. § 403.412 (West 1992); IND. CODE ANN. §§ 13-6-1-1 to 13-6-1-6 (Burns 1991); MINN. STAT. ANN. §§ 116B.01-116B.13 (West 1992); S.D. CODIFIED LAWS ANN. §§ 21-10-1 to 21-10-15 (1991).

23. One exception is Michigan. *See* Joseph Sax & Joseph DiMento, *Environmental Citizen Suits: Three Years' Experience under the Michigan Environmental Protection Act*, 4 ECOLOGY L.Q. 1 (1974).

I. BACKGROUND

A. A Brief History of Prior Efforts

Despite their lack of success, there have been attempts to craft a right to a healthful environment on the federal level. Proposals for a right to a healthful environment emerge from two centuries of recognizing common law environmental nuisances and the need for public health measures. Further, an environmental right emerges from the expanding recognition of the intrinsic value of nature and the realization that the comprehensive protection of the environment is essential to the long-term meeting of many human needs.[24] In the past two decades, philosophers, ecologists, historians, nature writers and legal scholars have crafted new ethical statements to justify the assertion of environmental rights, either as human rights or as the rights of animals or, more simply, as natural rights.[25]

In the late 1960s, a number of legislators proposed constitutional and statutory rights to a healthful environment. Congressman Charles E. Bennett proposed one in 1967;[26] Representatives Richard Ottinger and Morris Udall made similar proposals in 1968 and 1970, respectively.[27] In drafting the National Environmental Policy Act (NEPA), Senator Henry Jackson's Senate bill provided that "each person has a fundamental and inalienable right to a healthful environment."[28] On January 19, 1970, Senators Nelson, Cranston and Pell introduced Senate Joint Resolution 169, which stated: "Every person has the inalienable right to a decent environment. The United States and every State shall guarantee this

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24. Some commentators view the Constitution as the common law writ large, although I do not subscribe to the theory. *See* RICHARD A. EPSTEIN, TAKINGS 331-32 (1985). It is clear that the public values implicit in a constitutional amendment for a decent environment were preceded by recognition and development of those values during the previous century both in common law and statutes. *See* Richard O. Brooks, Intimations of Environmental Ideals (unpublished, 1991, on file with author).

25. *See* RODERICK FRAZIER NASH, THE RIGHTS OF NATURE: A HISTORY OF ENVIRONMENTAL ETHICS 13-32 (1990) (providing one recent comprehensive history of these statements).

26. Lynton K. Caldwell, *An Environmental Amendment to the Constitution, in* THE COMPREHENSIVE ENVIRONMENTAL AMENDMENT PROJECT, ENVIRONMENTAL AMENDMENT CIRCULAR No. 4, *supra* note 6, at 13.

27. *Id.*; Robert A. McLaren, *Environmental Protection Based on State Constitutional Law: A Call for Reinterpretation*, 12 U. HAW. L. REV. 123, 124-25 & n.4 (citing Rep. Ottinger's proposed amendment to the Constitution at H.R.J. Res. 1321, 90th Cong., 2d Sess. (1968)).

28. H.R. REP. No. 765, 91st Cong., 1st Sess.(1969), *reprinted in* 1969 U.S.C.C.A.N. 2767, 2768.

right."[29] These proposals were not enacted into law, although NEPA does contain a far less radical version of them.[30]

In the early 1970s, several lawsuits sought to establish a right to a healthful environment implicit in the Constitution.[31] In *Tanner v. Armco Steel Corp.*,[32] the plaintiff sought five million dollars in damages for pulmonary injuries caused by emissions from the defendant's petroleum refineries. The claim was launched under the Constitution "in its entirety," the Due Process Clause of the Fifth Amendment, the Ninth Amendment, the Fourteenth Amendment, the Civil Rights Act of 1871, and NEPA.[33] The district court dismissed the action, finding no valid constitutional or statutory claim and opining that the action might be brought better under common law nuisance.[34] No other constitutional actions appeared in federal court in the ensuing years, although since *Tanner* several states have adopted environmental constitutional provisions.[35] In the late 1980s, the National Wildlife Federation proposed an environmental quality amendment.[36] These efforts show a

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29. McLaren, *supra* note 27, at 125 (1990) (citing S.J. Res. 169, 91st Cong. 2d Sess. (1970), and providing a detailed history of this period).

30. "The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment." 42 U.S.C. § 4331(c) (1988). One of NEPA's major authors is a proponent of a constitutional right. *See* Lynton Caldwell, *A Constitutional Law for the Environment: 20 Years with NEPA Indicates the Need*, 31 ENV'T 6 (Dec. 1989).

31. Hagedorn v. Union Carbide Corp., 363 F. Supp. 1061 (N.D. W.Va. 1973); Pinckney v. Ohio Envtl. Protection Agency, 375 F. Supp. 305 (N.D. Ohio 1974).

32. Tanner v. Armco Steel Corp., 340 F. Supp. 532 (S.D. Tex. 1972).

33. The theory behind the appeal to the Constitution "in its entirety" may have been an argument that a constitution of a society depends upon a viable ecosystem. In any event, the court ruled that the phrase "is not a plain statement of the ground upon which the Court's jurisdiction depends, and is therefore insufficient pleading . . . ." *Tanner*, 340 F. Supp. at 534.

34. The *Tanner* court viewed the defendant as a private party. Since there was no state action, therefore, it was a dispute between two private parties. *See Tanner*, 340 F. Supp. at 535.

35. The litigation under these provisions has been considerable. *See infra* notes 218-26 and accompanying text.

36. The amendment states:

The Nature Amendment

Section 1. No action, policy, or pattern of neglect, either public or private, shall be taken or permitted by the United States or any State, which would have a significant adverse effect:

(a) on the atmosphere, waters, soils, or other physical resources on which life depends;

(b) on the integrity, diversity, or continuing viability of plant or animal species of known or potential, direct or indirect value to humanity; or

willingness to address environmental concerns from the standpoint of rights. The inherently conservative nature of the federal Constitution, and the historical infrequency of successful amendment, makes the adoption of an environmental right an uphill battle. Defining such a right is no small part of the problem.

B. The Question of Definition

The proposal for a constitutional right to a healthful environment raises a host of issues.[37] Is the environmental right a civil right of human health, or does it extend to animals, to ecosystems, or both? Is it a legal right, a moral right, or both? Does it impose an affirmative duty on government and on other citizens? Is it protection against environmental risks or only against actual harms? Is it a right against government action only? To what kinds of government actions does it apply? What, if any, is the relationship of environmental rights to the right of privacy? Does such a right to a healthful environment suffer from incurable vagueness? Is such a right inalienable, or can citizens consent to the risk of pollution? Is it an individual right, a minority right, the right of a diffuse majority, or the right of a community? Is such a right necessary given

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(c) on the integrity, diversity, or continuing viability of a wild ecosystem.

Section 2. All public authorities shall nurture the social foundations of a sustainable human relationship with the natural world:

(a) by preserving natural features of outstanding beauty;
(b) by facilitating ecological research and popular understanding of ecological principles and concerns;
(c) by promoting and facilitating the practice of pro-environmental disciplines, such as conservation, recycling, pollution control and sustainable technology; and
(d) by promoting respect for the welfare of non-human creatures, and protecting them from unnecessary suffering at human hands.

Section 3. The preservation of ecosystems being necessary to the future of humanity, the right of citizens to bring suit on behalf of the provisions of this Article, or in direct defense of the entities protected by Section 1 above, shall not be denied or abridged by the United States or any State.

Section 4. The Congress shall have power to enforce this article by appropriate legislation.

THE COMPREHENSIVE ENVIRONMENTAL AMENDMENT PROJECT, ENVIRONMENTAL AMENDMENT CIRCULAR No. 4 at 25 (Michael Massey ed., June 1991) (version 2.01 of the amendment, dated June 1991; originally funded by the National Wildlife Federation).

37. These issues are discussed by a variety of legal scholars. *See infra* note 38. *See also* PETER S. WENZ, ENVIRONMENTAL JUSTICE (1988). One of the central issues is the relationship between risks and rights. *See generally* JUDITH THOMSON, RIGHTS, RESTITUTION, AND RISK: ESSAYS IN MORAL THEORY (1986); Christopher H. Schroeder, *Rights against Risks*, 86 COLUM. L. REV. 495 (1986).

the growing number of statutory citizen suit provisions and other mechanisms for controlling government action?

Even if it is agreed that we have, or should have, a constitutional right to a healthful environment, the problems of clarification begin. Is it the right to government action to prevent public actions, private actions, or both which would degrade a minimally healthful environment? Is it the right to equal access to a healthful environment? Is it the right to the knowing consent to serious health risks in the environment? Is it the right to government abstention from direct or indirect participation in the creation of a health risk? Is it the right to government compensation for health harms? Or, is it the right to government supported remedial health services to fix environmental harms? Does the right include government responsibility for natural as well as artificial pollutants? Does it extend to the indoor environment, the home, and the workplace? What is its relationship to the asserted right to housing? Does it extend to harmful consumer goods in the environment as well as residuals? What level of health is protected? Whose health is protected? Does it protect the ultrasensitive child, the sick, and the elderly?

These questions are not posed to suggest that the definition of a right to a healthful environment is impossible. After all, other rights, such as freedom of speech, face similar complications and their limits can only be defined over time. The crafting of environmental statutes, which we agree are necessary, involves similar problems of clarification.

Furthermore, whether or not any constitutional right is ultimately adopted, the attempt to define such a right can greatly benefit our environmental legal regime. Both scholarly commentary and court opinions have explored these issues extensively.[38] The

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38. *See, e.g.*, RICHARD TUCK, NATURAL RIGHTS THEORIES: THEIR ORIGIN AND DEVELOPMENT (1979) (natural rights); CHRISTOPHER D. STONE, SHOULD TREES HAVE STANDING: TOWARD LEGAL RIGHTS FOR NATURAL OBJECTS (1975) (rights of ecosystems); ANIMAL RIGHTS AND HUMAN OBLIGATIONS (Tom Regan & Peter Singer eds., 1976); Stephen I. Burr, *Toward Legal Rights for Animals*, 4 ENVTL. AFF. 205 (1975) (animal rights); Joel Feinberg, *The Rights of Animals and Unborn Generations*, *in* PHILOSOPHY AND THE ENVIRONMENTAL CRISIS 43-68 (William T. Blackstone ed., 1974) (rights of future generations); William T. Blackstone, *On Health Care as a Legal Right: An Exploration of Legal and Moral Grounds*, 10 GA. L. REV. 391 (1976); Tom H. Christofel, *The Right to Health Protection*, 1978-82 BLACK L. J. 183 (1978-82); ALAN GEWIRTH, *Human Rights and the Prevention of Cancer*, *in* HUMAN RIGHTS (1982); Norman Daniels, *Health Care Needs and Distributive Justice*, 10 PHIL. & PUB. AFF. 146 (1981) (health rights); Joseph L. Sax, *Do Communities Have Rights?: The*

various answers to these questions depend upon different conceptions of rights and constitutions, as well as life, health, and privacy. In this article, I do not explore the fundamental pluralism of basic conceptions underlying environmental rights, nor do I favor one position over another.[39] Rather than start with an exploration of such ethical and jurisprudential issues, I choose to approach the issue of the desirability and feasibility of a constitutional right to a healthful environment as part of a grander exploration of the relationship of the entire Constitution and its underlying environmental science and vision to environmental protection.

C. The Constitution as Interpreted through Prevailing Views of Nature

Very broadly speaking, there have been three stages in the history of the relationship between our Constitution and our views of nature.[40] The first stage was Newtonian, and it envisioned the uni-

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National Parks as a Laboratory of New Ideas, 45 U. PITT. L. REV. 499 (1984) (national park rights); Scott Lehmann, *Do Wildernesses Have Rights?*, 3 ENVTL. ETHICS 129 (1981) (wilderness rights).

This list suggests the possibilities of defining rights. One original effort linked an environmental right to privacy to the right of control over one's body. *See* Ruth Gavison, *Privacy and the Limits of the Law*, 89 YALE L.J. 421 (1980). *See also* W. David Slawson, *The Right to Protection from Air Pollution*, 59 S. CAL. L. REV. 667 (1986) (a complete review of all forms of legal rights protecting one natural resource).

39. Five kinds of pluralism underlie the issue of environmental rights. First, there is the pluralism in the definitions of the nature of rights itself. Second, there are different formulations of the holders of the right, e.g., wilderness, animals, etc. Third, there is pluralism in the meanings of the object of the right. For example, there are very different concepts of health. Christopher Boorse, *Health as a Theoretical Concept*, 44 PHIL. OF SCI. 542-73 (1977). Fourth, there is the moral pluralism founded by Christopher Stone. CHRISTOPHER D. STONE, EARTH AND OTHER ETHICS: THE CASE FOR MORAL PLURALISM (1987). Finally, there is the pluralism of the natural settings that precede the rise of legal regimes, which in turn impose legal "order" on those settings.

40. The oversimplification includes omission of the recognition that numerous scientific theories influenced our founders. For example, our founders were undoubtedly influenced by Linnaeus and Buffon's biological theories. *See generally* JOSEPH KASTMAN, A SPECIES OF ETERNITY (1977). I have omitted the discovery of entropy which plays an important role in environmental and energy policy and which entered political theory in the late 1800s, particularly through the work of Henry Adams.

In the twentieth century, I have selected ecology as the central scientific discipline, even though it could be argued that the information sciences, theoretical physics, genetics, or social biology will have a greater impact upon our legal system. Evolutionary theory and sociobiology remain especially influential in modern legal theory. *See generally* LAW, BIOLOGY & CULTURE (Margaret Gruter & Paul Bohannan eds., 1983). One modern theorist is Roger Masters. *See* ROGER MASTERS, THE NATURE OF POLITICS (1989) (exploring the relevance of sociobiological theory to politics). Masters' predecessors include Bagehot, Spenser and Woodrow Wilson.

verse as a complex and balanced machine. The Newtonian view prevailed at the time of the Constitution and dominated the minds of the Founders.[41] The text of the Constitution reflected these principles. The separation and balance of powers insured the freedom of citizens from government domination. Rights were viewed as circumstantial freedoms from the federal government's imposition of its powers. As Alexander Hamilton explained in *The Federalist Papers*:

> The science of politics, however, like most other sciences, has received great improvement. The efficacy of various principles is now well understood, which were either not known at all, or imperfectly known to the ancients. The regular distribution of power into distinct departments; the introduction of legislative balances and checks; the institution of courts composed of judges holding their offices during good behavior; the representation of the people in the legislature by deputies of their own election: these are wholly new discoveries, or have made their principal progress toward perfection in modern times. They are means, and powerful means, by which the excellencies of republican government may be retained and its imperfections lessened or avoided. To this catalog of circumstances that tend to the amelioration of popular systems of civil government, I shall venture, however novel it may appear to some, to add one more, on a principle that has been made the foundation of an objection to the new Constitution; I mean the ENLARGEMENT of the ORBIT within which such systems are to revolve, either in respect to the dimensions of a single State, or to the consolidation of several smaller States

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The examination of the kinds of natural science and their influence upon the definition of law and rights is an indirect continuation of the natural law and natural rights philosophies which were the source of modern civil rights activities, but have been rejected by much modern jurisprudence.

Without exploring this complex topic in detail, let me simply say that the notion of natural health within the phrase "right to a healthful environment" may provide one specific link between natural precepts and positive rights. *See* J. Warren Salmon & Howard S. Berliner, *Health Policy Implications of the Holistic Health Movement*, 5 J. OF HEALTH POL., POL'Y AND L. 535-53 (1980); Boorse, *supra* note 39, at 542-73.

Theoretical physics, specifically quantum physics and the theory of relativity, had only indirect impact upon political and legal theory. *See* DAVID BOHM, WHOLENESS AND THE IMPLICATE ORDER (1980); ALFRED NORTH WHITEHEAD, SCIENCE AND THE MODERN WORLD (1925).

This classification of constitutions oversimplifies in another way; namely, it is not based upon a careful historical study of the principles of the Constitution. *See, e.g.*, Stephen A. Siegel, *Historicism in Late Nineteenth-Century Thought*, 1990 WIS. L. REV. 1431. However, there is some secondary literature on the topic. *See infra* notes 41, 44.

41. MICHAEL FOLEY, LAWS, MEN AND MACHINES: MODERN AMERICAN GOVERNMENT AND THE APPEAL OF NEWTONIAN MECHANICS 1-20 (1990).

> into one great Confederacy. . . . The opponents of the PLAN proposed have, with great assiduity, cited and circulated the observations of Montesquieu on the necessity of a contracted territory for a republican government. But they seem not to have been apprised of the sentiments of that great man expressed in another part of his work. . . . So far are the suggestions of Montesquieu from standing in opposition to a general Union of the States that he explicitly treats of a CONFEDERATE REPUBLIC as the expedient for extending the sphere of popular government and reconciling the advantages of monarchy with those of republicanism.[42]

The Newtonian view resonates in Hamilton's choice of words.[43]

The second constitutional period may be seen as the Darwinian stage in which the organic metaphor replaced the Newtonian, mechanical one.[44] In this view, society, state and law, specifically the Constitution, are evolving, with judicial review becoming an instrument of evolution.[45] This evolution includes brutal competition in nature that expresses itself in the marketplace.[46] The preeminent Darwinian right is the private property right, the right of the individual to own, develop and market nature-in-property.[47] The Darwinian view still prevails in modern constitutional jurisprudence.

The third, dawning period is the Ecological stage. In the century since Darwin, the biological sciences have fashioned a new view of nature as an ecosystem—an interdependence of biotic and abiotic components.[48] Proponents of the environmental law regime

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42. THE FEDERALIST No. 9 (Alexander Hamilton), *cited in* THOMAS L. PANGLE, THE ENNOBLING OF DEMOCRACY: THE CHALLENGE OF THE POST-MODERN ERA 8 (1992).

43. Laurence Tribe's first model of constitutional law corresponds well with the Newtonian mindset. LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW §§ 1-2, 2-4 (2d ed. 1988).

44. Thomas H. Peeble, *A Call to High Debate: The Organic Constitution in its Formative Era: 1890-1920*, 52 U. COLO. L. REV. 49 (1980).

45. E. Donald Elliott, *The Evolutionary Tradition in Jurisprudence*, 85 COLUM. L. REV. 38 (1985). *See also* JOHN H. BECKSTROM, EVOLUTIONARY JURISPRUDENCE: PROSPECTS AND LIMITATIONS IN THE USE OF MODERN DARWINISM THROUGHOUT THE LEGAL PROCESS (1989).

46. *See generally* RICHARD HOFSTADER, SOCIAL DARWINISM IN AMERICAN THOUGHT (1955); CYNTHIA RUSSETT, DARWIN IN AMERICA: THE INTELLECTUAL RESPONSE, 1865-1912 (1976); CYNTHIA RUSSETT, THE CONCEPT OF EQUILIBRIUM IN AMERICAN SOCIAL THOUGHT (1966).

47. Unlike the earlier Lockean tradition, which envisaged a fixed limit in the development of property and its accumulation, constant growth and change were Darwinian principles which permeated concepts of property.

48. *See* D.F. OWEN, WHAT IS ECOLOGY? (1974) (an elegant, brief description of ecology);

seek to articulate a set of rules compatible with this new view of nature.[49] The modern "environmental crisis," as an ecological phenomenon, results from the increasing disturbance of local and global ecosystems, which threatens human survival and the survival of the ecosystem. In the present environmental law regime, this crisis calls for either the total or partial regulation of the ecosystem, to meet the human need of survival and to express respect for the inhabitants of the ecosystem and the ecosystem itself.[50] The ecological perspective defines individual rights in terms of the protection of the allocation of each organism to its specific niche within the ecosystem, and the right of the organism to occupy that niche. From this perspective the right to health predominates.[51] Just as the separation and balance of powers insured individual freedom under our original Constitution, and judicial review insured an evolutionary adaption under the Darwinian Constitution, the present legal system must adopt the appropriate legal institutions for ecosystem management and niche protection under the modern, "Ecological" Constitution.

II. The Three Constitutions: The Specifics

Since the constitutional issues arising out of the current environmental crisis can be usefully analyzed in terms of the three Constitutions—the Newtonian, the Darwinian, and the modern "Ecological" Constitution—the details of these Constitutions are important.

A. The Newtonian Constitution

What is this Newtonian, pre-Darwinian, pre-evolutionary Constitution? How do the more specific provisions of this Constitution relate to the way in which nature and energy were perceived at the

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Donald E. Worster, Nature's Economy (1977) (exploring the history of ecology and its implications for social thought).

49. *See generally* Richard O. Brooks, Environmental Values, Ecological Concepts, and Modern Environmental Law: Cases and Materials (unpublished, 1991, on file with the author) (detailing the expanse of recent legal writing on the relationship of ecology to law).

50. *See* John Dryzek, Rational Ecology: Environment and Political Economy (1987) (exploring governmental devices appropriate to an ecological orientation).

51. This assertion is arguable, since the right to ecosystem protection may seem more appropriate. Insofar as rights are attributable to individual organisms and health is defined as the organism's adaptation to the ecosystem, there is a link between the right to health and the rights of ecosystems.

time? As *The Federalist Papers* suggest, the text of the original Constitution embodies six major principles. Both energy[52] and environmental cases in recent decades have tested the modern viability of these principles. These cases, it may be argued, arise in part because the Constitution was not originally designed to accommodate the modern insights of evolutionary ecology. These "original" principles include:

> 1. A separation of government from society, reflected in a Constitution which does not regulate relations among so-called private parties. These relations are left to the common law, whose doctrines do not impose affirmative duties upon individuals.
>
> 2. A tripartite division of powers—legislative, judicial and executive—each of which is to check and balance the other. No mention is made of the fourth power—the administrative agency which is central to environmental protection.
>
> 3. A federal system with an opponent allocation of powers and functions among distinct state and federal government entities, but which fails to lay out the complex administrative federation.
>
> 4. A Constitution which protects individuals and their rights and freedoms from direct government action, but not from the informal power of nongovernment organizations such as corporations.
>
> 5. A Constitution that explicitly recognizes individuals but not social groups or organizations. No mention is made of families, cities or other social groupings.
>
> 6. A representative republican bicameral legislative system based upon states' boundaries.

These six principles reflect the naive notion that government, the organization of power, can be hermetically and permanently separated from society. The Newtonian Constitution assumes a neat, harmonious "balance" between powers and levels of government. This Constitution assumes neat boundaries among branches and levels of government which reflect a Newtonian ideal, com-

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52. For the most part, this article does not review energy concepts and energy cases. Such an exploration could be fruitful in light of the recent emergence of entropy as an important concept in energy policy. *See generally* BARRY COMMONER, THE POVERTY OF POWER: ENERGY AND THE ECONOMIC CRISIS (1977); JEREMY RIFKIN, ENTROPY: A NEW WORLD VIEW (1980).

plete unto itself. But such a view ignores the very real Darwinian conflict which, we now see, characterizes the messy, day-to-day relations among government powers. Furthermore, preset limits on government and pre-existing rights of individuals now seem artificial to us in our inherited Darwinian recognition of an evolving natural and social system. The history of modern constitutional litigation in the areas of energy and the environment can be understood partly as the product of a conflict between the Newtonian constitutional "mindset" and the new relationships and concepts demanded by environmental and energy problems. Each of these six principles merits closer scrutiny.

1. The Separation of Government from Society

John Locke, in *An Essay Concerning the True Original, Extent, and End of Government*,[53] separated civil government from the institutions of society. That separation is reflected in the Newtonian Constitution, which neither regulates the relations between private individuals nor recognizes families and other social groups, but rather regulates only relations within government and between government and individuals. The common law, which preceded the Constitution and did regulate relations between individuals, acted to complement the constitutional "blindness" in this area. Thus, if individual *A* polluted *B*, *B* has no "constitutional claim" against *A*, but may have a common law claim in nuisance. This split fostered a bifurcated legal system of relations regulated through constitutional jurisprudence and the common law.[54] This bifurcated legal system promoted constitutional ignorance of "private" centers of power, such as the modern corporation.[55]

By abstracting civil government from societal relations, Locke extricated the basic business of government from the dynamic of societal relations. Insofar as societal competition, privacy, family, and other social phenomena express the workings of nature, the

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53. John Locke, *An Essay Concerning the True Original, Extent, and End of Government, reprinted in* THE ENGLISH PHILOSOPHERS FROM BACON TO MILL 403 (Edwin Burtt ed., 1967).

54. This bifurcated system may impede the legal and court review of important concentrations of private power which are built upon common law contractual relationships. The bifurcated system was also reflected in *Blackstone's Commentaries*. *See* Duncan Kennedy, *The Structure of Blackstone's Commentaries*, 28 BUFF. L. REV. 205 (1979).

55. *See* MILLER, *supra* note 12 (discussing private centers of power and the Constitution).

Constitution ignores them. The Supreme Court inevitably had to *invent* "privacy" in order to adjudicate matters involving the family and other social groups.[56]

This notion of a government separate from society flies in the face of reality. It is a myth whose breakdown can be seen in the increased constitutional review of relations between individuals in the race relations area. This breakdown has come about through the Supreme Court's recognition of the fact that law permeates society in all aspects of race and culture. In *Shelley v. Kraemer*,[57] the Court extended the concept of "state action" for Fourteenth Amendment purposes to social relationships among "private" parties. Specifically, the Court held that state courts violated the Fourteenth Amendment by enforcing a racially restrictive covenant. Though the covenant was an action between private parties, the act of public enforcement qualified it as "state action." Effectively, the Court adjusted relations between private individuals, contrary to the philosophy of the Newtonian Constitution. But this was done only by forcing modern reality into a traditional, outdated mold.

Kraemer was more the exception than the rule. Courts have not explicitly extended the full constitutional net over the private relationships between polluter and polluted. For example, in *Tanner v. Armco Steel Corp.*, the plaintiff claimed an implied federal constitutional right not to be polluted.[58] The plaintiff argued that federal subsidies to the defendant colored the defendant's actions as "state action." The district court disagreed. The court suggested that the claim should have been brought as a private common law nuisance case,[59] in spite of the fact that it was not likely that such an action would have succeeded. *Tanner* clearly demonstrates that the Constitution does not extend protection to the rights of the polluted from alleged "nongovernmental polluters."

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56. Griswold v. Connecticut, 381 U.S. 479 (1965) (the first Supreme Court "privacy" case). Even earlier, however, privacy as a concept was part of the development of common law torts.

57. Shelly v. Kraemer, 334 U.S. 1 (1948).

58. Tanner v. Armco Steel Corp., 340 F. Supp. 532, 535 (S.D. Tex. 1972).

59. *Id.* at 537. The reach of "state action" will be a major issue in the interpretation of state constitutional rights when they are limited to state action affecting the environment. The state action doctrine is, to say the least, very difficult to decipher. *See* TRIBE, *supra* note 43, §§ 18-1 to 18-7.

Another way of approaching this issue is to explore the analogous situation in NEPA, where major federal actions may trigger the required impact statement.

A government of limited powers also finds justification in the constitutional and common law tenet that the law imposes no affirmative duties upon private individuals. For example, the Constitution contains no explicit duty to vote. For the most part, there is no "affirmative duty of benevolence" at common law.[60] As a consequence, there is no affirmative duty for individuals to protect or maintain the environment. The absence of an affirmative constitutional duty is particularly relevant in the energy and waste management areas. There is no constitutional duty to save energy, nor, at a more general level, is there a duty to minimize energy loss or pollution through appropriate waste management practices. Other constitutions, including our state constitutions, do place affirmative duties on individuals.[61] Proposed model constitutions have recommended such a duty to protect the environment.[62] Without such a constitutional duty, protection and maintenance is relegated to statutes which, when implemented, create possible infringements upon the central value of liberty of the citizen, contrary to existing constitutional principles.[63] In short, without a constitutional duty behind the government regulation, the weight of constitutional values is placed against environmental regulation.

2. Tripartite Division of Powers

As the second basic premise of the Newtonian Constitution, the tripartite division of powers in the constitution has a rich intellectual history.[64] This division assumes that the functions of adjudication, legislation, and execution of the law are separable and should be kept separate to insure the freedom of individuals from an oppressive government. Yet, even before the environmental and energy crises, this separation of powers had been severely challenged during the New Deal.[65] Many commentators now believe

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60. *See* Bach v. Amory Mfg. Co., 44 A. 809 (1897) (a frequently cited New Hampshire case). The state motto of New Hampshire is "Live Free or Die." *See also* THOMAS GREY, THE LEGAL ENFORCEMENT OF MORALITY, 155-99 (1983) (providing a collection of materials on the duty to rescue). Vermont has modified the common law by statute and imposes a duty to rescue. *See* VT. STAT. ANN. tit. 12, § 519 (1973 & Supp. 1991).

61. Duties of stewardship of animals have been imposed by animal anti-cruelty statutes. *See, e.g.*, VT. STAT. ANN. tit. 13, §§ 351-400 (1988).

62. *See* REXFORD TUGWELL, THE EMERGING CONSTITUTION 597 (1974).

63. This issue has been discussed elsewhere. *See* Richard O. Brooks, *Coercion to Environmental Virtue: Can and Should Law Mandate Environmentally Sensitive Lifestyles?*, 31 AM. J. JURIS. 21 (1986).

64. Karl Friedrich, *Separation of Powers*, 13 ENCYC. SOC. SCI. 663-66 (1934).

65. TRIBE, *supra* note 43, § 4-3.

that the executive and government agencies, through their regulations, in fact legislate, and that the executive, in its quasi-adjudicative activities, fully adjudicates. Further, the court both legislates in its broad and creative interpretations of the law and "executes" in its supervision of remedial decrees.[66]

Some of the most recent challenges to the constitutionality of legislation under the separation of powers doctrine have been challenges to environmental and energy legislation.[67] By their very nature, the environmental and energy crises aggravate this breakdown in the division of powers. The complexity and interrelations within an ecosystem require ecosystem management which, in turn, requires broad legislative mandates and continuous administration. These mandates and the task of continuous administration must be delegated to an appropriately structured governmental body, if effective management is to result.

Askew v. Cross Keys Waterways[68] presents an environmental example. In *Askew*, the Florida Supreme Court examined the Florida Environmental Land and Water Management Act, which designates areas of "critical state concern."[69] These areas are "area[s] . . . having a significant impact upon . . . environmental . . . resources of regional or statewide importance[,] . . . area[s] significantly affected by, or having a significant effect upon, an existing or proposed major public facility[,] . . . [or] proposed area[s] of major development potential."[70] Under the Act, the Florida State Planning Division recommended these areas, and an administration commission designated their boundaries, explained reasons for their designation, and provided specific principles for governing growth in the area.[71] In *Askew*, the Commission designated the Green Swamp Area, which comprises 322,690 acres, as an area of critical concern.[72] The designation was contested under Article II, Section 3 of the Florida Constitution, which explicitly estab-

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66. KENNETH DAVIS, ADMINISTRATIVE LAW TEXT 23-25 (1972) (discussing the myth of the allocation and separation of powers).

67. The need for flexible management is not limited to environmental management, but extends to economic and other forms of planning and management. The increase in sectoral planning in the United States creates the demand for such flexibilitiy. *See* OTIS GRAHAM, JR., TOWARD A PLANNED SOCIETY: FROM ROOSEVELT TO NIXON (1976).

68. Askew v. Cross Keys Waterways, 372 So. 2d 913 (Fla. 1978).

69. *Id.* at 914.

70. *Id.* at 914-15.

71. *Id.* at 916-17.

72. *Id.* at 916 n.8.

lishes a separation of powers and prohibits improper delegation of powers from one branch to another.[73]

The court found that the legislature had improperly delegated its legislative powers to the administrative commission.[74] The standards of designation of the area "makes it impossible for a reviewing court to ascertain whether the priorities recognized by the Administration Commission comport with the intent of the legislature."[75] The Florida Act was amended consistent with the holding of the case. *Askew* notwithstanding, state legislatures across the country have had to grant broad mandates to administrative agencies to manage environmentally sensitive areas properly.[76]

In the energy law field, the issue of legislative veto is a good example of the breakdown of the tripartite division of government.[77] Many recent energy laws require the President or the administration of a government agency to submit each decision or regulation to Congress.[78] This blocks action for a set time while Congress studies the matter. A majority of both Houses, either House, or even a congressional committee may veto the action during that period. The executive has claimed that such a device infringes upon the executive power. In *Consumer Energy Council of America v. Federal Energy Regulatory Commission*, the U.S. Circuit Court of Appeals for the District of Columbia invalidated a legislative veto of incremental pricing regulations for natural gas promulgated by the Federal Energy Regulatory Commission (FERC) under the Natural Gas Policy Act.[79] The veto violated Article I, Section 7 of the United States Constitution.[80] In making its ruling, the court may have blocked one of the few ways the legislature can cope effectively with the complex administrative issues that energy and environmental cases raise.

The issue of separation of powers may also arise when the President invokes the power under Article II to conduct foreign

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73. *Id.* at 917-18.

74. *Id.* at 925.

75. *Id.* at 919.

76. 5 ZONING AND LAND USE CONTROLS § 33.03[5] (Patrick J. Rohan ed., 1991).

77. Since 1982, the Supreme Court has declared some kinds of legislative vetoes unconstitutional. *See* INS v. Chadha, 462 U.S. 919 (1983).

78. *See* Consumer Energy Council of America v. Federal Energy Regulatory Comm'n, 673 F.2d 425 (D.C. Cir. 1982).

79. *Id.*

80. *Id.* at 448.

affairs. The Constitution grants this power explicitly, but the dividing line between presidential authority and congressional powers may be very hard to discern.[81] In *Federal Energy Administration v. Algonquin SNG, Inc.*,[82] the Supreme Court upheld the President's power to raise license fees on imported oil under the Trade Expansion Act of 1962.[83] The Court was construing section 232(b) of the Act,[84] under which the President is authorized to take action when imports threaten the national security.[85] These cases highlight the fact that the notion of separation of powers often hinders the government from dealing with complex environmental problems effectively.

3. A Federal System with the Allocation of Powers between the State and Federal Governments

The third basic premise of the Newtonian view is federalism. The implications of the environmental movement for our form of federalism, which posits a central government with specified, absolute powers over the states, are by no means clear. On the one hand, insofar as environmental impacts or ecosystems extend beyond traditional state borders, either a multi-state regional system or a federal system with greater powers seems appropriate.[86] Moreover, given the history of the growth of centralized power generation and distribution, the use of a jurisdiction broader than the

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81. TRIBE, *supra* note 43, § 4-4. The difficulty of drawing such a line may become increasingly important in this new era of global environmental issues. Lynton Caldwell argues that adoption of a federal constitutional environmental right would make our national environmental policy more credible abroad and enhance international environmental agreements. *See* Caldwell, *supra* note 6, at 7. Such an amendment might help legitimate domestic controls which are a consequence of international agreements.

82. Federal Energy Admin. v. Algonquin SNG, Inc., 426 U.S. 548 (1976).

83. *Id.* at 558.

84. *Id.* at 550-52.

85. *Id.* at 550. The international aspect of the energy crisis, especially in regard to oil, obviously strengthens the constitutional hand of the executive, and may give the executive the authorization, despite the separation of powers doctrine, to manage the complex relations of the energy system. The international dimension of recent environmental global issues may also strengthen the executive's hand in those issues. From that point of view, a state constitutional environmental right may operate to inject more "grassroots" domestic environmental concerns into an array of international agreements and their consequent domestic laws.

86. Vigorous arguments have been made to the effect that our current approach of national ambient air quality standards is irrational and that a more decentralized approach makes sense. James E. Krier, *The Irrational Air Quality Standards: Macro and Micro Mistakes*, 22 U.C.L.A. L. REV. 323 (1974).

local or state level seems appropriate.[87] On the other hand, to the extent that environmentalists argue for decentralization, "the soft energy path," "small is beautiful," and grass roots participation, environmental regulation seems best promulgated on the state or local level.[88]

The dilemma of federalism in the environmental and energy context is demonstrated in preemption cases, Tenth Amendment cases, and Commerce Clause cases.[89] The doctrine of preemption is a ramification of Article VI, Clause 2 of the U.S. Constitution, which states that federal law "shall be the Supreme Law of the Land."[90] Preemption deals with the fundamental question of to what extent, if any, the states may legislate in areas covered by the powers that the Constitution has delegated to Congress.[91] Federal legislation preempts if it forbids state action; it may act as a "floor," however, above which the states may legislate more stringently.[92] Preemption may be explicitly stated in federal legislation, but in many cases courts must construe statutes to decide whether implicit preemption has occurred.

To resolve the question of implicit preemption, the court examines legislative history to discern the intent behind the legislation and decide whether the area regulated is such that uniform federal regulation is necessary. The court also decides whether state law obstructs the full purpose of the federal statute or conflicts with its administration, and may strike the state law down if it does. In instances where federal and state law conflict, federal

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87. On the other hand, the environmental effects may be local and there is a tradition of both federal and state regulation of different aspects of power generation and distribution.

88. MURRAY BOOKCHIN, THE ECOLOGY OF FREEDOM: THE EMERGENCE AND DISSOLUTION OF HIERARCHY (1982); KIRKPATRICK SALE, HUMAN SCALE (1982); AMORY B. LOVINS, SOFT ENERGY PATHS: TOWARD A DURABLE PEACE (1977); E.F. SCHUMACHER, SMALL IS BEAUTIFUL: ECONOMICS AS IF PEOPLE MATTERED (1975).

89. *See* Philip Soper, *The Constitutional Framework of Environmental Law, in* FEDERAL ENVIRONMENTAL LAW 20 (Erica L. Dolgin & Thomas G.P. Guilbert eds., 1974) (badly out of date).

90. U.S. CONST. art. VI, § 2.

91. Legal purists would argue that in "preemption" the court is deciding whether the legislature intended exclusively federal rule, or a combination of state and federal control in a particular matter. However, under the doctrine of implied preemption the court has considerable discretion to render its own decision.

92. The preemption can be explicitly stated in the statute or implied by congressional adoption of legislation which is comprehensive, whose policies would be implied by the retention of the state legislation in question, or which actually conflicts with the administration of the state legislation.

rather than state law controls, so that federal law preempts state law.[93] In the final analysis, upholding the Supremacy Clause through preemption means that the benefit to the nation as a whole outweighs the cost to individual states.

The preemption issue also frequently arises in energy law cases. The energy crises of the 1970s brought the Supremacy Clause sharply into focus, as the different energy needs of the different states came to light in tandem with the pursuit of a national energy policy. One such Supreme Court case is *Pacific Legal Foundation v. State Energy Resources Commission*,[94] which involved California's law governing the siting of nuclear plants.[95] The state law imposes a moratorium on certification of nuclear plants pending development of federally approved methods of nuclear waste storage, certification for all types of nuclear plants, creation of a federally approved method of disposing of nuclear wastes, and a study of underground and berm containment.[96] At issue was whether section 274(c)(1) of the Atomic Energy Act (AEA) preempted the California law.[97] Under section 274(c)(1), the Atomic Energy Commission (and its successor the Nuclear Regulatory Commission) retain sole responsibility for regulating hazardous activities including "the construction and operation of any production or utilization facility."[98] Section 274(k) provides that "nothing in this section shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards."[99]

The United States Supreme Court interpreted this clause to permit state regulation for health, environmental, and economic purposes other than radiation control.[100] The Court concluded that the California law did not attempt to regulate nuclear safety.[101] Citing a state committee report, the Court classified the waste

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93. *See, e.g.*, Ray v. Atlantic Richfield Co., 435 U.S. 151 (1978) (examining the question of whether federal regulations governing oil tankers preempted similar state regulations).

94. Pacific Legal Found. v. State Energy Resources Conservation & Dev. Comm'n, 461 U.S. 190 (1983).

95. *Id.* at 194.

96. *Id.*

97. *Id.* at 194-95; *see* 42 U.S.C. § 2021(c)(1) (1988).

98. 42 U.S.C. § 2021(c)(1) (1988).

99. *Id.* § 2021(k).

100. *Pacific Legal Found.*, 461 U.S. at 205. California claimed that the lack of a federally approved method of waste disposal was clogging the fuel cycle, escalating costs of nuclear power. *Id.* at 213.

101. *Id.* at 216.

problem as "largely economic . . . not safety related."[102] The Court found that the AEA did not preempt the California law because the federal law was interpreted to occupy the entire field of nuclear power *safety*, while the California law was aimed at economic problems, not nuclear safety.[103] Accordingly, the state statute was outside the federally occupied field of nuclear safety regulation, and could stand.

In one respect, the significance of this case surpasses the ordinary preemption case because it highlights the inherent limitation of the Newtonian view. The framers of the Constitution never foresaw the development of nuclear energy, which produces a new form of pollution never anticipated at the time the original Constitution was drafted. The safety concerns inherent in the generation of such tremendous amounts of energy prompted the AEA and its grant of a federal regulation monopoly of nuclear power.[104] The Act foreclosed any possibility of power sharing between the federal and state governments with respect to nuclear energy safety.[105] This centralized, expert national control may be justified considering the persistence, subtlety, and potential mobility of radioactive pollutants and the technical difficulty of their control.

Nevertheless, the national monopoly of nuclear power regulation has led to a continual under-evaluation of the localized risk of its uses, leaving the states with the problem. Furthermore, since the late 1940s and early 1950s, concern over environmental pollution and health and safety issues has led to a system of law in which, for the most part, both state and federal governments play a joint role in protection, and under which states may adopt more stringent regulations than the federal government has adopted. When such a tradition was applied to nuclear power by California, the modern confrontation between federal and state law resulted, though the absence of conflict precluded federal preemption.

In addition to the Supremacy Clause, questions of federalism in the natural resources and energy areas arise under the Commerce Clause,[106] which empowers Congress to regulate interstate

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102. *Id.* at 213.

103. *Id.* at 216.

104. 42 U.S.C. §§ 2011-2296 (1988).

105. *Pacific Legal Found.*, 461 U.S. at 212; *see also* 42 U.S.C. § 2012 (1988).

106. U.S. CONST. art. I, § 8, cl. 3. This "Commerce Clause" is also the basis upon which the federal government claims the affirmative power to adopt environmental statues. In my opinion, if the U.S. Constitution had an affirmative powers clause for environmental protec-

commerce. The Commerce Clause limits the ability of states to enact legislation that substantially interferes with the free flow of goods or services in interstate commerce. These Commerce Clause issues are illustrated by the case of *Minnesota v. Clover Leaf Creamery Co.*,[107] which concerned Minnesota's ban of the retail sale of milk in plastic non-returnable bottles.[108] The United States Supreme Court found the ban to be rationally related to the achievement of the statutory purpose, and that it did not violate the Commerce Clause by placing an unnecessary burden on interstate commerce.[109] The Court found that the Minnesota law did not discriminate between in-state and out-of-state commerce.[110] The Court appeared to adopt a test comprising the following four elements: (1) Is the statute protectionist?; (2) Does it impose a burden excessive in comparison to local benefits?; (3) What is the local interest?; and (4) Could it be promoted with less impact another way?[111]

The Court distinguished *Clover Leaf* from another environmental case, *Philadelphia v. New Jersey*,[112] in which the State of New Jersey unsuccessfully tried to exclude Philadelphia's waste. Both *Clover Leaf* and *Philadelphia v. New Jersey* illustrate the difficulty of adapting the federal system and its limitations to regulation of interstate commerce under the Commerce Clause. This is due to the fact that environmental problems are not limited to state boundaries.

The Tenth Amendment also raises federalism questions. Though the Tenth Amendment specifically reserves to the states those powers not enumerated in the Constitution,[113] federal courts have favored the supremacy of federal law more often than they have bowed to the states. The Tenth Amendment issue was discussed in *United States v. Ohio Department of Highway Safety*.[114] In that case, the State of Ohio's air quality implementation plan

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tion, it would enhance the legitimacy of government regulation in the field.

107. Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456 (1981).

108. *Id.* at 458.

109. *Id.* at 470, 473.

110. *Id.* at 472.

111. *Id.* at 471.

112. City of Philadelphia v. New Jersey, 437 U.S. 617 (1978).

113. The Tenth Amendment provides that "[t]he powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." U.S. CONST. amend. X.

114. United States v. Ohio Dep't of Highway Safety, 635 F.2d 1195 (6th Cir. 1980).

was inadequate to assure attainment of federal primary air quality standards.[115] As a consequence, the United States Environmental Protection Agency (EPA) supplemented the state implementation plan with a regulation requiring denial of registration to cars which failed to pass inspection and maintenance tests. Ohio challenged the federally supplemented plan, claiming it infringed upon powers reserved to the states under the Tenth Amendment.[116] In another case, *Pennsylvania v. United States Environmental Protection Agency*,[117] the EPA proposed regulations to supplement the state implementation plan, thereby bringing the plan into compliance with the Clean Air Act.[118] The EPA regulations required inspection and maintenance plans for certain motor vehicles to ensure that their emissions were not above prescribed levels.[119] Pennsylvania challenged the application of federal enforcement procedures against the state for noncompliance with the regulations. The Court construed the law to authorize enforcement against the state, a decision with inherent Tenth Amendment ramifications.[120] The Court found that the requirement did not violate the Tenth Amendment since it did not interfere with "integral state" functions, require revamping of the permit system, or require large expenses.[121] This suggests that the federal interest outweighed the state interest.

The net effect of federalism on a centralized approach to environmental problems is, at best, uneven because of the federal government's limited powers and a tradition of respect for states' rights. This precludes potentially comprehensive schemes, and leaves a piecemeal, state-by-state approach that fails to address many transboundary environmental concerns adequately.

4. A Liberal Constitution Which Protects Individuals and Their Rights from Government Action

Protection of the rights of individuals also underpins the Newtonian view of the Constitution. It is interesting to speculate

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115. *Id.* at 1197.

116. *Id.* at 1205.

117. Pennsylvania v. United States Envtl. Protection Agency, 500 F.2d 246 (3rd Cir. 1974).

118. 42 U.S.C. §§ 7401-7671 (1988 & Supp. 1991).

119. Pennsylvania v. United States Envtl. Protection Agency, 500 F.2d at 248-49.

120. *Id.* at 259-63.

121. *Id.* at 262-63.

whether changes in our fundamental concepts of energy and the environment have an impact on our concepts of human rights as well. Although I am not prepared to explore that hypothesis in regard to energy concepts, a substantial body of environmental and biological opinion challenges the notion of human rights based upon a unique human nature.[122] Nevertheless, as discussed below, there have been a number of cases involving appeals to fundamental rights *within* the environmental and energy fields. On the one hand, the individual may be claiming some form of environmentally related right against government action. On the other, the individual may be claiming a right against government efforts to protect the environment. A sampling of these rights and the potential effect on them follows.

a. The Right to a Healthful Environment

In *Tanner v. Armco Steel Corp.*,[123] the plaintiff sought damages due to air pollution from defendant's refineries and plants.[124] He appealed to the Constitution "in its entirety," the Due Process Clause of the Fifth Amendment, the Ninth Amendment, and the Fourteenth Amendment.[125] The Court found no federal action under the Fifth Amendment, deemed the Ninth Amendment too vague, and considered the Fourteenth Amendment inapplicable for a variety of reasons.[126]

b. Religious Rights to Environmental Protection

In the case of *Badoni v. Higginson*,[127] Navajo Indians sought to enjoin the adoption of certain operating criteria to the control of water in the Glen Canyon Dam and reservoir.[128] They claimed the waters would destroy and desecrate many Navajo gods and sacred

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122. *See* MORTIMER J. ADLER, THE DIFFERENCE OF MAN AND THE DIFFERENCE IT MAKES (1967) (providing an overview of the literature and a vigorous response). These challenges have been accompanied by a modern relativism which reduces all moral judgments to subjective preferences—a position which also undercuts the legitimacy of the assertion of rights.

123. Tanner v. Armco Steel Corp., 340 F. Supp. 532 (S.D. Tex. 1972).

124. *Id.* at 534.

125. *Id.* Vermont Law School's Environmental Law Center has published a pamphlet on the issue of Vermont's Constitutional Right to a Decent Environment. ENVIRONMENTAL LAW CENTER, VERMONT LAW SCHOOL, ENVIRONMENTAL CONSTITUTIONAL RIGHTS (1980).

126. *Tanner*, 340 F. Supp. at 534-37.

127. Badoni v. Higginson, 455 F. Supp. 641 (C.D. Utah 1977).

128. *Id.* at 643.

places in the vicinity of the Rainbow Bridge National Monument, and thus the operating criteria would violate their free exercise of religion under the First Amendment.[129] The district court found the Navajos to have no property interest in the land involved and hence no cognizable claim, but that even if they had a cognizable claim, it was more than balanced by a strong state interest, since there was no evidence of "deep religious convictions shared by an organized group and intimately related to daily living."[130]

In the more recent case of *Sequoyah v. Tennessee Valley Authority*,[131] two bands of Cherokee Indians and three individual Indians sued to stop a proposed water impoundment from the Tellico Dam, claiming the land flooded was sacred.[132] The district court below had found the lack of the Indians' property interest conclusive.[133] The Sixth Circuit Court of Appeals found no evidence of the centrality of the Little Tennessee Valley to the Cherokee religious observations.[134]

c. Individual Rights Versus Efforts to Promote Environmentalism

In *Central Hudson Gas & Electric Corp. v. Public Service Commission of New York*,[135] the United States Supreme Court, acting under the First and Fourteenth Amendments, struck down a regulation of the Commission forbidding an electric utility from advertising to promote the use of electricity.[136] The Court found that, although the advertising was commercial free speech protected by the First Amendment, the state had a clear and substantial interest in regulating the advertising in order to promote conservation and that there was a direct link between the ban and the promotion of conservation.[137] It concluded, however, that the regulation went too far to pass constitutional muster.[138]

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129. *Id.*

130. *Id.* at 645 (quoting Wisconsin v. Yoder, 406 U.S. 205, 216 (1972)).

131. Sequoyah v. Tennessee Valley Authority, 620 F.2d 1159 (6th Cir. 1980).

132. *Id.* at 1160.

133. *Id.* at 1164.

134. *Id.*

135. Central Hudson Gas & Elec. Corp. v. Public Serv. Comm'n of New York, 447 U.S. 557 (1980).

136. *Id.* at 571-72.

137. *Id.* at 569.

138. *Id.* at 569-71.

d. Individual Rights Versus Environmental Protection Efforts

Environmentalists do not see themselves as dangerous to individual rights and freedoms. Yet a host of property-related cases, noted below, suggest that the net of federal or state environmental regulation may be too tight, and a threat to the property rights of the individual. To the extent that property rights are a vehicle for protecting broader freedoms, the environmental curbing of property rights is an important issue for the Newtonian Constitution.[139] However, I will discuss these cases in the context of the Darwinian Constitution, where property and the marketplace are central issues.[140]

e. Ambivalent Implications of Selected Rights Cases

Some Supreme Court cases have significant positive and negative implications for environmental programs. In a series of cases beginning with *Griswold v. Connecticut*,[141] the Court has recognized an ill-defined right of privacy, which it has ascribed to several amendments of the Constitution, including the First, Fourth, Fifth, Ninth, and Fourteenth. The right of privacy has potentially far-reaching implications for state-sponsored family and population control efforts.[142] The right of privacy which resulted in the Court's declaring unconstitutional Connecticut's effort to control the sale and use of contraceptives could, under some definitions of privacy, block aggressive government efforts to promote contraceptive use. On the other hand, the privacy right can operate to justify a liberal family planning policy in which families, couples, or women as individuals freely determine whether and how to limit their procreation.[143]

The above consideration of certain rights suggests the potential complexity of interaction between a right to a healthful envi-

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139. The checks and balances of a Newtonian Constitution presumably weakened only one branch, retarding it from aggressively invading human rights, including property rights.

140. *See infra* notes 149-59 and accompanying text.

141. Griswold v. Connecticut, 381 U.S. 479 (1965).

142. Presumably the "privacy" which permitted the defendants in *Griswold v. Connecticut* to prescribe and use contraceptives could be a privacy which would prevent aggressive public birth control programs and their use of incentives or coercive population techniques. *See* STEPHEN L. ISAACS, POPULATION LAW AND POLICY: SOURCE MATERIALS AND ISSUES (1981) (discussing such techniques).

143. Obviously, this is the central issue in the abortion cases.

ronment and rights currently protected by the Constitution.

5. Individualism

Individualism is the fifth basic principle of the Newtonian Constitution. Whatever the reason, large-scale armies and corporations, mass media, and an array of other organizations (including political parties) are essential parts of the environmental problem. Yet the text of our Constitution offers no clear explicit recognition of these institutions and places no explicit requirements upon corporations in the form of required methods of internal democratic governance or social accountability.[144] There is, however, an indirect recognition of these institutions. For example, the appropriate treatment of corporate officials has recently been raised in cases involving criminal penalties for environmental violations by corporations and their officials.[145] Both the legislature and the courts have struggled to determine the extent to which criminal penalties are appropriate when applied to corporate officials.[146] Clearly, however, the Newtonian Constitution defined relationships between individuals, and between individuals and the federal government. Regulation of other social relationships was left to the common law.

6. A Representational Republican Legislative System

A republican representational system is the the final underlying premise of the Newtonian Constitution. In order to facilitate the exercise of governmental power in accordance with a representative system, a set of preset political boundaries called "states," "municipalities," and "towns" have been established. These boundaries, however, often fail to correspond with the boundaries of ecosystems and fail to change as new boundaries become recognized as important to the solution of environmental problems.[147] The extensive constitutional litigation over the one man/one vote issue in special districts, such as water districts, is one example of

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144. MILLER, *supra* note 12.

145. Robert I. McMurray & Stephen D. Ramsey, *Environmental Crime: The Use of Criminal Sanctions in Enforcing Environmental Laws*, 19 LOY. L.A. L. REV. 1133 (1986).

146. *See id.* at 1155-57.

147. *See* EDWIN HAEFELE. REPRESENTATIVE GOVERNMENT AND ENVIRONMENTAL MANAGEMENT (1973) (providing an in-depth discussion of the relationship of political boundaries to environmental problems); BRUCE ACKERMAN ET AL.. THE UNCERTAIN SEARCH FOR ENVIRONMENTAL QUALITY (1974).

the conflict between preset legal boundaries with their voting arrangements and flexible ecosystem boundaries with unique voting requirements.[148]

A consideration of these six principles shows that the Newtonian Constitution was ill-suited to deal effectively with the subtle, complex nature of environmental and energy problems. It lacked affirmative duties, limited the reach of government power, and extolled the rights of individuals. The Darwinian view of the Constitution eschewed the Newtonian Constitution's abstraction of government from society, but not necessarily for the promotion of a healthful environment.

B. The Darwinian Constitution

Charles Darwin published *The Origin of Species*, a work of immense intellectual impact, in 1859. This impact found expression in the work of such political and legal thinkers as Walter Bagehot, Herbert Spenser, Oliver Wendell Holmes, Jr., Woodrow Wilson, and John Dewey.[149] The notion of evolution corresponded well with the conception of law as an evolutionary process. The related notions of species competition and the survival of the fittest paralleled the social phenomena of competition within a growing market economy and the industrial revolution.[150] A metaphor emerged with the Constitution as an evolving organic instrument, rather than a static "machine" of counter-balancing rights and duties.[151] Judicial review permitted a constitutional evolution, as society itself changed.[152] The commercial free speech doctrine[153]—an important impediment to some environmentalists who seek to control the allegedly misleading advertising of corporations—is one demonstration that the evolutionary doctrine could be protected

148. DOUGLAS H. STRONG, TAHOE: AN ENVIRONMENTAL HISTORY (1984).

149. WALTER BAGEHOT, PHYSICS AND POLITICS (1872); HERBERT SPENSER, PRINCIPLES OF ETHICS (1898); OLIVER WENDELL HOLMES, JR., THE COMMON LAW (1881); WOODROW WILSON, CONGRESSIONAL GOVERNMENT: A STUDY IN AMERICAN POLITICS (1885); JOHN DEWEY, THE SIGNIFICANCE OF THE PROBLEM OF KNOWLEDGE IN THE INFLUENCE OF DARWINIAN PHILOSOPHY (1910). *See* Herbert Hovenkamp, *Evolutionary Models in Jurisprudence*, 64 TEX. L. REV. 645 (1985) (a classification of the varied meanings of evolution).

150. *See* Siegel, *supra* note 40.

151. *See* Hovenkamp, *supra* note 149.

152. *See* CHRISTOPHER WOLFE, THE RISE OF MODERN JUDICIAL REVIEW: FROM CONSTITUTIONAL INTERPRETATION TO JUDGE-MADE LAW (1986) (describing the transformation of constitutional interpretation and judicial power in America).

153. TRIBE, *supra* note 43, § 12-5.

by the rights established under the Darwinian Constitution.[154]

Given the Darwinian Constitution's primary focus upon the rights of private property and the marketplace, judicial review of the Darwinian Constitution legitimized an industrial revolution, resulting in a wholesale assault on the environment.[155] This Darwinian Constitution permitted, indeed encouraged, the activities which lie at the heart of some of today's environmental problems. The modern effort to regulate the environment and protect environmental rights runs headlong into the Darwinian Constitution's protection of private property and the marketplace. Darwinian theory emphasized competition in the marketplace and ignored the commons aspect of property ownership. Although commons ownership of natural resources was not unusual in the 1800s, the intellectual recognition of commons rights had to await the advent of the ecological revolution in the twentieth century.[156]

The property right defended under the Darwinian Constitution is not the Lockean right of property development through labor, but rather the right of profit from participation in the marketplace. This right has been enshrined in the "rational expectation" doctrine addressed by property rights cases before the courts. Modern environmental regulations which infringe upon these "rational expectations" may be found unconstitutional.[157]

Many environmental cases involving constitutional property rights claims have been decided by federal and state courts.[158] In 1987, the Supreme Court adopted a two-part test in determining whether an unconstitutional taking of property had occurred, requiring that land use regulations both advance a legitimate govern-

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154. Crowley v. Smithsonian Inst., 462 F. Supp. 725 (D.D.C. 1978). In *Crowley*, individuals and religious groups challenged the museum's exhibitions on the subject of evolution, claiming they violated the First Amendment requirement for government religious neutrality. The Court found that the evolution exhibit was not a form of religious secular humanism though it served a secular purpose. The primary effect, the Court argued, neither advanced a religious theory nor inhibited religious beliefs. The exhibits did not involve excessive entanglement in religion or improperly constrain the free exercise of religion.

155. LEWIS MUMFORD, THE CULTURE OF CITIES (1970). *See* JOEL JAY KASSIOLA, THE DEATH OF INDUSTRIAL CIVILIZATION: THE LIMITS OF ECONOMIC GROWTH AND THE REPOLITICALIZATION OF ADVANCED INDUSTRIAL SOCIETY (1990) (discussing the future of industrialization).

156. The notion of community was part of the development of the concept of ecology. *See* DONALD WORSTER, NATURE'S ECONOMY: THE ROOTS OF ECOLOGY 291-315 (1977).

157. *See e.g.*, Penn Central Transp. Co. v. New York City, 438 U.S. 104, 185 (1978).

158. These cases have been discussed from an ecological point of view. *See* James Karp, *Aldo Leopold's Land Ethic: Is an Ecological Conscience Evolving in Land Development Law?*, 19 ENVTL. L. 737, 750-54 (1989).

ment interest and leave the landowner with an economically viable use of his land.[159]

C. The "Ecological" Constitution

Environmental law cases can also be viewed from the modern perspective of an "Ecological" Constitution. The science of ecology, which views nature as an interdependent web of biotic and abiotic elements, reached fruition only in the 1970s.[160] Ecology views nature as an evolving ecosystem—an interdependent interaction and evolution of biotic and abiotic elements moving toward equilibrium.[161] The ecosystem is composed of evolving organisms and a variety of organismal communities located within identifiable boundaries. These organisms are understood through their occupation of ecological niches, through their function within the system, and through their cycling of matter and energy throughout the system.[162]

Like Newtonian science, ecology views nature as a system. However, the relationship between the parts is one of subtle evolving interaction, rather than static mechanical attraction and repulsion. Like Darwin, ecology theories recognize evolution, but the species evolution is contained within a larger ecosystem, which itself evolves toward stability.[163]

When imported into the political sphere, this ecological view carries neither an oppositional system of checks and balances nor a competitive system of evolution. It entails a complex view of both cooperative and competitive principles.[164] The central lesson of ecology, as applied to political life, is that nature invokes a complex specialization of labor. The implications of this specialization

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159. *See e.g.*, Keystone Bituminous Coal Ass'n v. De Benedictus, 480 U.S. 470 (1987).

160. It is important to distinguish between the science of ecology and the vision of ecology. *See* MARK SAGOFF, ENVIRONMENTAL SCIENCE AND ENVIRONMENTAL LAW (1985).

161. *See* CYNTHIA RUSSETT, THE CONCEPT OF EQUILIBRIUM IN AMERICAN SOCIAL THOUGHT (1966) (discussing the importance of the concept of equilibrium in both biological and social thought).

162. The ecological view is to be distinguished from the Newtonian mechanistic view. The former sees development and decline in the component biota, dynamic change within the system, and evolution and cataclysmic changes of the system itself.

163. The stability of the ecosystem has been vigorously disputed by some recent ecologists. *See* DANIEL B. BOTKIN, DISCORDANT HARMONIES: A NEW ECOLOGY FOR THE TWENTY-FIRST CENTURY (1990).

164. This "cooperation" can be viewed as a strategy in the struggle for life, and correspondingly, competition can be viewed as part of the dynamic of a large system.

of labor begin with the assignment of rules and duties within nature and then within the political system. These duties are defined in light of the system as a whole.[165]

Under traditional interpretations of the Constitution, neither government nor individuals had affirmative duties. Historically, law imposed reciprocal duties primarily through the common law. More recently, statutes have picked up the slack.[166] This phenomenon may be viewed through the immense growth of environmental statutes which place a variety of duties upon governmental administrative agencies. With few exceptions the legislature imposes no duty on itself.[167] The central issues created by an ecological view of the Constitution are whether and to what extent the Constitution will require government and other social institutions to perform duties. Specifically, the questions address the duty to protect the environment and the claims of individuals to a healthful environment.[168]

Placing affirmative constitutional duties upon the federal government through constitutional interpretation has recently been rejected by the Supreme Court.[169] This leaves open the avenue of constitutional amendment, or "constitutional enactment."[170] Another alternative, discussed below, is the adoption of positive state constitutional rights,[171] in accordance with a tradition of state positive rights which already exists.[172]

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165. It could be argued that ecology implies an ethic of duty, the obligation to fulfill certain roles rather than an ethic of rights. Such a statement, however, ignores the difficult and sometimes reciprocal relations between rights and duties.

166. *See* MARY ANN GLENDON, RIGHTS TALK: THE IMPOVERISHMENT OF POLITICAL DISCOURSE 18-46 (1991).

167. One exception is the duty placed upon the federal legislature under NEPA. 42 U.S.C. § 4332(c) (1988). Another may be the duty to provide certain services at the federal, state, and local level under the equal protection provisions or common law. *See* CHARLES HAAR & DAVID FESSLER, FAIRNESS AND JUSTICE: LAW IN THE SERVICE OF EQUALITY 55-78 (1986).

168. The duty orientation of environmental law is reflected in discussions of trusts on behalf of future generations—the duty to care for the environment for future generations.

169. DeShaney v. Winnebago County Dep't of Social Servs., 489 U.S. 189 (1989).

170. Implicit in my discussion is the belief that our "real" constitution consists of federal statutes rather than the broad language of the U.S. Constitution.

171. *See* Frank I. Michelman, *In Pursuit of Constitutional Welfare Rights: One View of Rawls' Theory of Justice*, 121 U. PA. L. REV. 962 (1973); Frank I. Michelman, *Welfare Rights in a Constitutional Democracy*, 3 WASH. U. L.Q. 659 (1979) (arguing for such welfare rights).

172. *See, e.g.*, Burt Neuborne, *Foreword: State Constitutions and the Evolution of Positive Rights*, 20 RUTGERS L. J. 881 (1989).

The imposition of constitutional duties upon government does not necessarily contribute to environmental protection. This point is illustrated by population law cases. For example, the failed effort to require states to provide minimum welfare payments to large families would have possibly encouraged large families and population growth to the detriment of the environment.[173] The effort to require constitutionally the affirmative duty of government funding of family planning services to protect the environment has also failed.[174] The lesson from this "double bind" is that any constitutionally affirmative duty placed upon the government for the purpose of protecting the environment would have to be in the specific form of an environmental protection duty, rather than a general public welfare duty.

The affirmative duty of government, i.e., the notion of positive or welfare rights, need not rest solely upon requirements for environmental protection. Many theorists have cogently argued that principles underlying negative rights—freedom from government activity—also imply and justify affirmative duties by government.[175]

In addition to the affirmative duty placed upon government, the "Ecological" Constitution may imply a transformation of the role of courts.[176] Given the complexity of the ecosystem, ecological disputes are often scientifically complex, involving many parties.[177] Moreover, the remedies needed in cases involving ecosystems frequently require extensive judicial supervision.[178] Such environmental cases strain the traditional functions of the courts. In fact, traditional courts may be ill suited to "polycentric" problems.[179]

The doctrine of standing is a good example of these problems. Standing is an outgrowth of the "case or controversy" requirement[180] of Article III that must be fulfilled before a federal court

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173. *See, e.g.*, Dandridge v. Williams, 397 U.S. 471 (1970).

174. *See, e.g.*, Maher v. Roe, 432 U.S. 464 (1977).

175. PETER S. WENZ. ENVIRONMENTAL JUSTICE 110-14 (1988).

176. Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281 (1976).

177. Many parties are involved because an intervention into an interdependent ecological system may diffuse the harm to many people.

178. Supervision of ecological remedies may be required because the ecosystem itself is in flux, and the remedies themselves are often further interventions into the system.

179. "Polycentric" situations are ones in which there are interconnected decision-making centers.

180. U.S. CONST. art. III, § 2.

can exercise its jurisdiction.[181] The doctrine addresses the nature of a plaintiff's interest in a case.[182] Traditionally, to obtain standing the plaintiff had to demonstrate harm to an economic interest, that the harm was causally linked to the defendant's alleged action, and that the court could provide a remedy to redress the harm. This prevents many environmental claims from seeing the light of day in federal court, because by their nature environmental harms often are aesthetic, cannot easily be traced to the actions of an individual, and strain judicial resources to provide a satisfactory remedy.[183] The Court has struggled with the conflict between constitutionally mandated processes by which courts conduct their business and the ways to best handle unique ecological problems. Other cases reflect a recognition of ecological realities. Several recent state court cases and a scattering of Supreme Court cases have recognized ecological limits on property rights.[184] For example, in *Just v. Marinette*, the Wisconsin Supreme Court explicitly recognized that wetland property ownership was conditioned by the ecological interactions of the wetlands in question.[185]

Despite growing case law, the notion of nature as an interrelated whole underlying the Constitution is a notion which remains unarticulated in detail by the courts. William Ophuls is one theorist who effectively addressed the need for an ecological view of the Constitution.[186] In his book, *Ecology and the Politics of Scarcity*,[187] Ophuls argues that the social contract reflected in the Con-

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181. *See* Alexander M. Bickel, *The Supreme Court 1960 Term Foreword: The Passive Virtues*, 74 HARV. L. REV. 40 (1961) (exploring the ways in which the court extricates itself from takings cases).

182. *See* JOSEPH VINING, LEGAL IDENTITY: THE COMING OF AGE OF PUBLIC LAW (1978) (a complex treatment of this issue, arguing for permissive standards for standing).

183. The 1970s and early 1980s witnessed judicial modifications of the traditional standing requirements that made it possible to bring more environmental claims in federal court. *See, e.g.*, Sierra Club v. Morton, 405 U.S. 727 (1972) (aesthetic and recreational interests cognizable for standing purposes, but party must show adverse effect to himself); Duke Power Co. v. Carolina Envtl. Study Group, 438 U.S. 59 (1978) (consideration of claims of individuals allegedly affected by liability limits for nuclear power plants); United States v. S.C.R.A.P., 412 U.S. 669 (1973) (indirect environmental damages sufficient for standing). Since then, however, the Court has reversed that trend by interpreting Article III standing requirements more rigorously, thereby excluding environmental claims. *See, e.g.*, Lujan v. Nat'l Wildlife Fed'n, 110 S. Ct. 3177 (1990).

184. *See* Karp, *supra* note 158.

185. Just v. Marinette County, 201 N.W.2d 761 (Wis. 1972).

186. Except for the work of "crossover" theorists like Dryzek and Masters, few theorists have bridged the gap between law, politics, and biology. *See* JOHN S. DRYZEK, RATIONAL ECOLOGY: ENVIRONMENTAL AND POLITICAL ECONOMY (1978).

187. WILLIAM OPHULS, ECOLOGY AND THE POLITICS OF SCARCITY (1977).

stitution was fundamentally cornucopian—based upon the premise of nature's inexhaustible abundance. The energy and pollution crises represent developments which challenge this premise. Ophuls argues that "the next generation of philosophers [must] create an ecological contract, thereby promoting harmony not just between men, but also between men and nature."[188] According to Ophuls, our Constitution must be rewritten. But this does not mean merely adding an environmental rights clause. It requires changing the Newtonian and Darwinian premises that underlie current interpretations of the entire Constitution.

Such a change, however, requires the recognition of a crisis.[189] Yet, when one views the modern constitutional developments pertaining to the environment, no sense of crisis reveals itself. Why is that? I believe the constitutional crisis is missing because the judicial review mechanism "screens out" fundamental challenges to its inherited view of reality. Just as the Newtonian and Darwinian Constitutions have screened out aspects of city growth, expansion of the military, and the global reach of large corporations, they have also screened out the environmental and energy crises.

The mechanisms by which the Constitution screens out basic inconsistencies between reality and its basic framework are really quite simple. Explicit recognition of social change is hindered because amending the Constitution is politically very difficult.[190] As a consequence, reliance has been placed upon the mechanisms of judicial review to secure constitutional change. However, judicial review remains a suspect mechanism for fundamental constitutional change.[191] Judicial review fragments the large problems of the Constitution into often unrelated specific cases and controversies, any one of which is seen as posing a relatively small challenge to the Constitution as a whole.[192] Moreover, in exercising judicial review,

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188. *Id.*

189. In the words of Habermas:

> We therefore associate with crises the idea of an objective force that deprives a subject of some part of his normal sovereignty. To conceive of a process as a crisis is tacitly to give it normative meaning—the resolution of the crisis effects a liberation of the subject caught up in it.

JURGEN HABERMAS. LEGITIMATION CRISIS 1 (Thomas McCarthy trans. 1973).

190. *See Tribe, supra* note 43, at 1585-87 (providing an example of the difficulty of amending the Constitution).

191. Judicial review lacks a foundation in a broadly-shared belief regarding its fundamental legitimacy.

192. Legal analysis, as part of judicial review, breaks up the legal "issues" into smaller, more specific issues to be resolved in part through appeals to specific doctrinal rules. Such

the Court can use a wide variety of legal techniques and doctrines to deny, avoid, manipulate, leave unresolved, or redefine the basic issues resulting from our environmental crises.[193] All of these techniques effectively mask any basic incompatibility between nature and society on the one hand and constitutional doctrine on the other. This observation leads us to a brief discussion of constitutional reasoning.

The nature of constitutional reasoning may be the explanation for the relative absence of a sense of environmental crisis in constitutional law. Philip Bobbit, in his book, *Constitutional Fate,* identifies six methods of constitutional reasoning: textual, doctrinal, historical, structural, ethical, and prudential.[194] Obviously the textual argument, an appeal from the text of the Constitution, cannot offer a recognition of the ecological nature of the environment, since the text contains no explicit reference to the environment. Similarly, there has been limited opportunity to formulate ecologically oriented doctrinal arguments, often derived from the text of the Constitution and developed over periods of time. Perhaps the "hard look" doctrine is the only recently articulated environmental doctrine.[195]

There are other explanations for the lack of historical and ethical arguments. Environmentalists have just begun to prepare histories of this nation's environmental commitments.[196] Similarly, ethical arguments, an "ethics of respect for nature," are only now entering the fabric of our society.[197] As a consequence, the Court does not have readily available an official history or an accepted ethos. In cases involving environmental issues, the Court appeals to traditional constitutional structures rather than new structures which might be needed for effective environmental protection. Finally, the constitutional appeal to prudential arguments does not enable the Court to reach the deeper principles which are needed in this ecological age.

"analysis" breaks down major issues into multiples of smaller problems.

193. To be sure, some cases, such as *Brown v. Board of Education*, 347 U.S. 483 (1954), and *Roe v. Wade*, 410 U.S. 113 (1973) assume importance for the defining and resolution of central issues in change.

194. PHILIP BOBBIT, CONSTITUTIONAL FATE: THEORY OF THE CONSTITUTION (1982).

195. *See* Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402 (1971).

196. *See* SAMUEL HAYES, BEAUTY, HEALTH & PERMANENCE: ENVIRONMENTAL POLITICS IN THE U.S. 1955-1985 (1987).

197. Only in the past decade have philosophers paid serious attention to environmental ethics.

The recognition that we live in an ecological age and that we are in need of articulating more fully an ecological contribution carries radical implications for the nature of constitutional reasoning. The systems nature of ecological reasoning contrasts sharply with the ad hoc, problematic approach of traditional legal reasoning.[198] The challenge becomes one of determining how systems rationality can be embodied in legal thought.

III. Statutes and Environmental Rights

The Constitution defines the organization of the major powers and institutions of government,[199] and statutes realize the plan. Statutes set forth and arrange the powers and institutions of the United States, including the environmental powers and institutions. These statutes establish a system of "administrative federalism" through which states carry out "implementation plans," financed in part by the federal government. The federal government approves and guides the plans according to broad standards.[200] Large public environmental bureaucracies, staffed by a variety of experts, have been established at the federal and state levels. Court decision making functions as the review of the activities of these bureaucracies.[201] Under many federal and state statutes, agencies plan and regulate ecosystems, managing the habitats of endangered species, the wetlands, the coastal zone, the river basins, and the cycling of nutrients. The consequent regulations seek to assign the proper niche for human activities. For example, the Fishery Conservation and Management Act and the Marine Mammal Protection Act assign a limited niche for fishing. This is a constraint on human activities within an ecosystem.[202] Human "rights to fish" receive limited protection through the rights of administrative or judicial appeal and selected citizen suit provisions, enabling citizens to challenge arbitrary or unauthorized decisions of

198. Richard O. Brooks, *Intellectual Technology: The Dilemma of Environmental Law*, 15 Rutgers Computer & Tech. L.J. 411, 421-22 (1989).

199. Some theorists do not distinguish between government and society and consequently view the Constitution as the basic structure of society. For environmentalists who wish to see a basic change in the structure of society, constitutional changes would mirror these deeper changes.

200. Richard O. Brooks, *The Law of Plan Implementation in the U.S.*, 16 Urb. L. Ann. 225 (1979).

201. R. Shep Melnick, Regulation and the Courts (1983).

202. Terrin Child & Jeffrey T. Haley, *The Marine Mammal Protection Act and the Fishery Conservation and Management Act: The Need for Balance*, 56 Wash. L. Rev. 397 (1981).

federal officers.

In most situations, proper management of ecosystems requires constraining the freedom of some human activity. In effect, environmental statutes allocate degrees of human freedom and duties for various activities within the ecosystem. The assertion of a right to pursue an activity within a regulated ecosystem, such as the right to develop in a wetland or the right to be protected from environmental abuse, either through proper administration of the environmental statute or further protection beyond the authorized statute, requires the coordination of rights.[203] The modern method of coordinating rights is through statute and administrative regulation. Such regulation, however, may fail.

A principal method of securing court review of the government's coordination of rights is through statutorily authorized citizen suit provisions within environmental statutes. However, the shift from rights based on common law to rights based on citizen suit provisions within statutes involves a fundamental change. The focus under citizen suit provisions is no longer on the right of a citizen not to be polluted, but on the responsibility of the agency to control pollution for all citizens. Obviously, if the government agency completely and effectively controls the pollution, there is no problem with such a shift. The right to clean air or clean water is then protected by the citizen's claim to enforce the proper administration of the Clean Air Act[204] and the Clean Water Act.[205]

But, what if the regulation falls short, either because it is inadequately enforced by the agency or improperly drafted by Congress?[206] The automatic response in such a situation is to claim that the agency is not "doing its job," or that the statute should be amended. Such a response, however, transforms the citizen's claim for the right to clean air or clean water into a claim for the agency or legislature to act to further proper regulation of clean air or clean water. This transformation makes such a claim seem less urgent, less legitimate, less linked to the fundamental rights of the citizen, and consequently subject to the discretion of the agency in question. As a result, citizen suit provisions are limited by statu-

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203. "Justice" is another name for the coordination of rights. Another notion is the common law notion of reciprocal rights and duties.

204. 42 U.S.C. §§ 7401-7671 (Supp. 1991).

205. 33 U.S.C. §§ 1251-1387 (1986).

206. *See* Weinberg, *supra* note 14.

tory language deferring to agency discretion.[207]

For this reason, despite new citizen suit provisions, environmental attorneys, Congress, and courts have sought to retain or restore the citizen's environmental rights in several different ways. First, they have sometimes sought to retain and revitalize the common law rights of citizens to sue for pollution events.[208] Thus, citizens may sue under nuisance, negligence, intentional tort, strict liability, or public trust doctrines. Unfortunately, these common law actions may be preempted by comprehensive environmental statutes.[209] Second, attorneys have sought to use environmental statutes like the Clean Air Act and the Clean Water Act as the basis for an "implied right of action" against polluters. Although the implied right still operates at the state level, this approach has been unsuccessful at the federal level.[210] Third, attorneys have employed the environmental statutes which provide mechanisms for citizen appeals for judicial review.[211] Again, these latter appeal devices are customarily viewed as mechanisms for requiring the agency to "do its job."

Similar to the citizen suit provisions, citizen appeal provisions may be viewed as precursors to the establishment of full modern mechanisms for establishing a citizen's statutory right to a common habitable ecosystem. In effect, such citizen appeal provisions and citizen suit clauses are the seeds of a new right to a healthful environment. They are not, however, the full flowers of adequately protected rights, which may only find full expression in the constitutions of the several states.

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207. The agency discretion exception is a crucial limitation on the notion of the citizens' claim as a right. The defense of such discretion is the administrative need to "balance" or coordinate the rights of many parties. In the administrative process, however, rights are transformed into grist for administrative decisions, without a formal motivation of the right in question or a rule recognizing the right. *See* 42 U.S.C. § 7604 (a)(2) (1988) (an example of discretion in citizen suits).

208. Jeffrey Trauberman, *Statutory Reform of "Toxic Torts": Relieving Legal, Scientific and Economic Burdens in the Chemical Victim*, 7 U. HAW. L. REV. 177 (1983).

209. Palma J. Strand, Note, *The Inapplicability of Traditional Tort Analysis to Environmental Risks: The Example of Toxic Waste Pollution Victim Compensation*, 35 STAN. L. REV. 575 (1983).

210. *See* Middlesex County Sewage Auth. v. National Sea Clammers Ass'n, 453 U.S. 1 (1981).

211. In complex statutes such as the Clean Air Act, 42 U.S.C. §§ 7401-7671 (Supp. 1991), there are three mechanisms for review. There is court review at the time of enforcement, at the instigation of a citizen suit, and at the review of administrative actions of rulemaking.

IV. Decentralized Ecosystems and Constitutional Federalism: State Constitutions

The view of nature as an ecosystem has deep implications for the federal structure of our Constitution. Most ecological knowledge of ecosystems is a decentralized knowledge; the study of wetlands, coastal areas, prairies, rivers, lakes, and mountains is subnational.[212] Each of these ecosystems may differ profoundly from one part of the country to another.[213] The "local" characteristic of ecosystems requires some form of localized protection and management. This is evidenced by the fact that most of the day-to-day planning and regulation of air, water, and land use is at the state and sub-state level. The national role is the adoption of broad, indeed vague, national standards to "guide" state and local regulatory efforts.

The recognition of the need for decentralized planning and management of ecosystems has been accompanied by powerful arguments for the decentralized production of energy and the avoidance of large-scale vulnerable techniques. A spate of books on the "soft path" energy alternative, "human scale" institutions, and "appropriate technology" has been part of the environmental movement.[214] Such environmental decentralization has been more recently buttressed by the conclusions of public choice economists, who have documented the economic disincentives to effective large-scale bureaucratic regulation.[215]

This argument for decentralization suggests the notion of handling the constitutional issues of environmental protection at the state level. In the past decade, there has been a renaissance in the strengthening of state constitutional protections.[216] This renaissance has been justified by the different approaches of federal and state constitutional adjudication, the differing political roles of

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212. Recently, a theory of ecology has developed which approaches ecosystems as hierarchies, including spatial hierarchies. R. V. O'Neill et al., A Hierarchal Concept of Ecosystems (1986). *See* Bryan Norton, Toward Unity among Environmentalists 148-51, 245-46 (1991) (discussing the ethical and management implications of this view).

213. For example, coastal "shorelands" are different in Maine, Rhode Island, Connecticut, North Carolina, Louisiana, and California due to geologic and other reasons.

214. Murray Bookchin, The Ecology of Freedom: The Emergence and Dissolution of Hierarchy (1982); Kirkpatrick Sale, Human Scale (1982); Amory B. Lovins, Soft Energy Paths: Toward a Durable Peace (1977).

215. Baden & Stroup, *supra* note 15.

216. *See* Franklin L. Kury, *The Environmental Amendment to the Pennsylvania Constitution: Twenty Years Later and Largely Untested*, 1 Vill. Envtl. L.J. 123 (1990).

state courts, and the differing natures of state constitutions.[217] As applied to environmental constitutional rights, state courts can define the nature of those rights with only one state and its limited number of ecosystems in mind. Additionally, in the case of environmental rights, the common law experience of the state courts may be helpful in determining how constitutional provisions can supplement the common law. State judges may also be more sensitive in weighing the state's environmental values. Finally, states can more readily amend their constitutions to include or modify an environmental right.

The feasibility of states adopting constitutional environmental rights is supported by instances where some states have adopted such rights. In 1975, the *Environmental Law Reporter* published a summary of environmental provisions in state constitutions,[218] and other commentators have updated this list.[219] Five kinds of constitutional provisions have been adopted: (1) public policy provisions; (2) rights statements; (3) protection of specific ecosystems; (4) public trust provisions; and (5) financial mechanisms.[220] Although a detailed, up-to-date review of all these provisions is beyond the scope of this article, an example of each kind of provision is useful. North Carolina provides that "[i]t shall be the policy of this State to conserve and protect its lands and waters . . . ."[221] Illinois declares a "right to a healthful environment."[222] In Massachusetts people have "the right to clean air and water" as well as other amenities.[223] Rhode Island has adopted constitutional language protecting fishery rights and imposing a duty on the General Assembly for its preservation and conservation.[224] New York has adopted language which protects areas within the Adirondack Mountain Range as forever wild.[225] Pennsylvania declares itself the

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217. In this sense, states are operating in a true classic federalist manner, as pluralistic testing grounds to constitutional environmental protection.

218. Roland M. Frye, *Environmental Provisions in State Constitutions*, 5 ENVTL. L. REP. 50028 (1975).

219. McLaren, *supra* note 27.

220. New classifications are needed based upon the values protected, i.e., the definition of the right, the holders of the right, the duties created, and the mechanisms of enforcement.

221. N.C. CONST. art. XIV, § 5.

222. ILL. CONST. art. XI, § 2.

223. MASS. CONST. art. XLIX.

224. R.I. CONST. art. I, § 17.

225. N.Y. CONST. art. XIV, § 1.

trustee for natural resources.[226]

Knowledge of the variety of constitutional provisions is important. Although these provisions do not constitute a complete reformation, the variety of classes suggests that the constitutionality of environmental concerns is much more complex than the simple assertion of an environmental right. The variety of state constitutional environmental rights suggests that there are different basic principles behind these constitutional provisions. These clauses serve to legitimize environmental protection of the commons as a public policy, and mandate a long-term fiduciary obligation of public action to protect and preserve environmental resources, as well as access to those resources. They create a priority of public expenditures for the protection of selected natural resources, the freedom of individuals or groups from environmental abuses, and the obligation of individuals to protect the environment.

Nevertheless, the history of litigation under state constitutional provisions reveals a mixed picture of their relative "effectiveness."[227] If one wishes to evaluate fully environmental constitutional rights as controls on government action, various formulations of these rights must be weighed against one another and against alternative mechanisms, including common law actions, citizen suit provisions, statutory controls on government polluting, NEPA, and grant-in-aid rights.[228] Each of these competing devices has advantages and disadvantages when compared to environmental constitutional rights. Such an elaborate comparison would be valuable, but it is beyond the scope of this article. The primary point here is that all of the alternative citizen remedies lack one of the major functions of a constitutional right to a healthful environment—they fail to legitimize the mandatory state regulatory effort to protect ecosystems in order to protect individuals' health.[229] The legitimation of the powers of government is an

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226. PA. CONST. art. I, § 27.

227. *See* McLaren, *supra* note 27 (discussing their implementation). *See also* Robert T. Mann & Richard Jackson, *Environmental Protection through Constitutional Amendment*, 1 J. LAND USE AND ENVTL. L. 385 (1985); Mary Lee Leahy, *Individual Legal Remedies against Pollution in Illinois*, 3 LOY. U. CHI. L.J. 1, 4 (1972); Nelea A. Absher, *Constitutional Law and the Environment:* Save Ourselves, Inc. v. Louisiana Envtl. Control Comm'n, 59 TUL. L. REV. 1557 (1985).

228. A comparative taxonomy of rights in this field would be based upon a review of the content, scope, and effectiveness of each kind of rights mechanism.

229. The underlying premise is that a minimum level of health protection is a basic part of any environmental protection program and that only the government is in a position

important function of a constitution, and as new regulations on the environment are enacted, such legitimation is required.

Legitimizing the government's power to regulate the environment appears to argue for constitutional language which focuses upon the government's affirmative powers rather than a citizen's right to a healthful environment. Many state constitutions provide language which both legitimizes and clarifies the powers of the state. For example, Pennsylvania has adopted an environmental constitutional right which has been cited in many of Pennsylvania's environmental laws, regulations, and executive orders.[230] The legitimating function of such a constitutional right can be seen in the history of Pennsylvania's environmental legislation.[231] Moreover, such legitimation and clarification occurred in the interpretation of the clause in the Pennsylvania Constitution.

In *Payne v. Kassab*,[232] several residents of Wilkes-Barre, Pennsylvania and students from Wilkes College sought to halt a street widening which they claimed would have a detrimental impact upon a scenic and historic river common. In the Commonwealth Court, after an evidentiary hearing, their complaint was dismissed.[233] One of the grounds of appeal was the Pennsylvania constitutional clause. The Supreme Court of Pennsylvania held that the clause was applicable and self-executing as applied to public property.[234] The court upheld the legislature's balancing approach to implementing the amendment. Specifically, the court relied upon the state statute requiring the consideration of prevalent alternatives in road construction projects to interpret the constitutional clause in question.[235] The Commonwealth Court adopted a three-part test:

> 1. Was there compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources?;
>
> 2. Does the record demonstrate a reasonable effort to reduce the environmental incursion to a minimum?;

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to guarantee the protection of that health.

230. *See* Kury, *supra* note 216.

231. *Id.*

232. Payne v. Kassab, 312 A.2d 86 (Pa. 1973), *aff'd* 361 A.2d 263 (Pa. 1976).

233. *Payne*, 312 A.2d at 97.

234. *Payne*, 361 A.2d at 272.

235. *Id.*

> 3. Does the environmental harm which will result from the challenged decision or action so clearly outweigh the benefits to be derived therefrom that to proceed further would be an abuse of discretion? [236]

The Supreme Court of Pennsylvania found that these criteria were complied with and that this compliance had been properly determined by the lower court.[237] The Commonwealth Court had determined that any adverse impact was minimal.[238]

Although legitimation of government regulation is important, especially in a time of declining trust in governmental institutions, the constitutional right to a healthful environment also offers a substantive interpretive principle for courts in their interpretation of environmental regulations. Statutes are ambiguous in their application, the connection between regulations and their statutory authorization is often uncertain, and executive powers remain undefined. A constitutional right would help to clarify the interpretive process and would tilt that process toward environmental protection.[239]

But if one seeks to provide an interpretive principle for protecting the environment, further language is needed than simply the assertion of a public policy or an environmental right. The legislature must be required to protect the environment. One way of mandating such a duty is to rely upon trust language[240] as several states have. The problem with trust language is two-fold. First, trust language leaves uncertain whether individual citizens have standing to bring actions, although such language can be added. Second, trust language hides a fundamental purpose of environmental protection—the purpose not merely to secure the public interest but also to mandate government protection of individual

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236. *Payne*, 312 A.2d at 94.

237. *Payne*, 361 A.2d at 273.

238. *Payne*, 312 A.2d at 95 (the road in question would have a relatively slight impact, would be at a point not critical to use and enjoyment of the commons areas, and was relandscaped).

239. One obstacle to state constitutional rights is their preemption by federal statutes. Many federal polluting victories, however, are the products of government actions which are not necessarily part of a comprehensive statutory scheme which expressly or impliedly seeks to preempt state law. *See Developments in the Law—The Interpretation of State Constitutional Rights*, 95 HARV. L. REV. 1324 (1982) (a study of the preemption of state constitutional clauses).

240. The importance of "trust" language is that it is an important part of the legal tradition of private and public trust law. *See* EDITH WEISS. IN FAIRNESS TO FUTURE GENERATIONS (1988).

rights. This protection includes the right to be free from pollution and to have access to natural resources.

In some of the cases involving state environmental rights, courts have refused to enforce such rights, interpreting constitutional provisions as "non-self-executing."[241] This may be justified by the assertion that court mandated legislative action to protect an individual's environment violates the separation of powers. In so deciding, the court is adopting the Newtonian view, according to which negative rights are to be protected by the separation and balance of powers. But if the positive right to a healthful environment is to be protected, and government is to insure positive rights, then the separation of powers principle should not prevent state judicial action from enforcing such rights.

The obligation of the government to protect positive rights can be derived from the intent of the adopters of the state constitutional clause in question, the tradition of state protection of positive rights, and a democratic political theory which can support the protection of positive rights as the government action often needed to support individual well-being.[242] Significantly, the recognition of positive rights does not preclude the court from reviewing government actions to protect the environment, if and when such actions infringe upon other individual freedoms.

From this perspective, the major function of a state constitutional right to a healthful environment is to lay bare the mandatory duty of the government to protect the individual's basic claim to a healthful environment. As indicated above, the customary way in which environmental issues have been framed is Newtonian or Darwinian. The government environmental regulation is viewed as conflicting with the individual's rights to personal freedom or property. A constitutional right to a healthful environment reframes the issue as one in which a government project or a failed government regulation violates an individual's environmen-

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241. A court's concern about whether or not a state constitutional right to a decent environment is "self-executing" suggests a deep constitutional issue. Courts often treat the issue as merely a matter of determining the intent of the framers. *See, e.g.*, Payne v. Kassab, 312 A.2d 86 (Pa. 1973), *aff'd*, 361 A.2d 263 (Pa. 1976). But the breadth of a constitutional right and its implications for affirmative government action raise the question as to whether the court is violating the separation of powers and, in effect, legislating rather than adjudicating. Such a concern is an echo of the Newtonian Constitution, balance and separation of powers to protect freedom.

242. *See* Neuborne, *supra* note 172.

tal rights within an ecosystem. Such a reframing lays bare the requirement of harmony between individual freedom and environmental protection.

Conclusion

The fundamental purpose of a constitutional right to a healthful environment is to frame the description of the pollution event in terms of a public assault upon an individual's substantive right to life and health. The values of life and health protection are nationally shared. From this point of view, a federal constitutional right to a healthful environment makes sense. However, the establishment of such a federal right in the near future is unlikely. Furthermore, the enforcement of such a right on a national level may be both undesirable and infeasible.

Despite the bleak prospect for a federal constitutional right, there remain many reasons why a properly formulated state constitutional right to a healthful environment makes sense. Most ecosystems and knowledge of those ecosystems exist at a local level. Adoption of a right to protect them permits the states to test different formulations of that right, adapting it to the culture, values, and local ecosystems. Some states may seek to broaden the right to encompass unique and valuable non-human environments within the state; other states may shrink from the full protection of health, preferring to permit their citizens to trade some environmental health risks for economic benefits.

The adoption of such a right at the state level permits not only the flexible testing of different degrees of protection, but also enables the crafting of the right in light of the current level of statutory protection within the state. While some states have a full panoply of citizen suit or public trust provisions and need little in the way of constitutional protections, other states may lack these statutory devices and prefer a broad and unified constitutional provision. The adequacy of the current non-constitutional legal regime to protect environmental rights will be most visible at the state level. Thus, any properly articulated constitutional right to a healthful environment shall: (1) emerge out of and be congruent with the history and culture of the state in question; (2) account for the ecological perspective; (3) legitimize the public regulation of ecosystems; (4) mandate appropriate public duties to protect environmental rights; and (5) offer appropriate remedies.

The ecological basis for an environmental right requires that the right be asserted *within* the framework of ecological management. Indeed, the constitutional clause should legitimate that framework for ecological management. Not only are most ecosystems "local," but the historical tradition of legal regulation of the environment is at the state and local level. Despite federal environmental laws, most ongoing ecological planning and management for air, water, and hazardous waste pollution takes place at the state level.

This management, however, cannot be merely discretionary with the public official. The possibility of the political influence of environmental management and the uncertainty attendant to the management of ecosystems means that citizens will inevitably be harmed in the exercise of a public official's discretion in the management of natural resources. Consequently, the constitutional right to a healthful environment must mandate a non-discretionary duty to protect environmental rights and insure compensation, restoration, or both when that duty is violated.

The design for such compensation or restoration is best achieved at a local level. Compensation or restoration may require a complex reallocation of resources which will be feasible only on a decentralized level. Compensation approaches have already been mandated by some courts when regulations invade property interests. If such compensation is feasible to protect property rights, comparable compensation rights should be provided for the violation of environmental rights.