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THE COMMON LAW AND THE ENVIRONMENT

Steven J. Eagle[†]

INTRODUCTION

The pervasiveness and importance of environmental interests makes protecting the environment an important focus of the American legal system. But perceptions of the nature of the “environment” and environmental “interests” differ, leading to sharp divisions regarding both the substance of desirable environmental rules and the nature of the institutions that are to define and enforce them.

Throughout most of American history, the common law was the principal institution for mediating conflicting claims about rights. Justice Lemuel Shaw of the Supreme Judicial Court of Massachusetts described the common law in 1854 as “a few broad and comprehensive principles, founded on reason, natural justice, and enlightened public policy, modified and adapted to the circumstances of all the particular cases which fall within it.”¹

The three great bodies of the common law are property, by which the rights of individuals regarding things are established and perfected; contract, by which those rights are exchanged through mutual consent; and tort, by which harm to those rights is rectified. In each of its branches, the focus of the common law was upon bilateral relationships, principally those of property owner and stranger to title, contract buyer and seller, and tort victim and tortfeasor.²

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¹ *Norway Plains Co. v. Boston & Maine R.R.*, 67 Mass. 263, 267 (1854).

² *See generally*, ERNEST J. WEINRIB, *THE IDEA OF PRIVATE LAW* (1995).

Our understanding of “property”³ did not emerge full-blown, but rather evolved over almost a millennium.⁴ The principal drafter of the Constitution, James Madison, declared that “[g]overnment is instituted to protect property of every sort; . . . This being the end of government, that alone is a *just* government, which *impartially* secures to every man, whatever is his *own*.”⁵ In contemporary scholarship, property rights have been termed the “great focus” of the Framers,⁶ and the “guardian of every other right.”⁷

Given the importance of property rights to our liberty and prosperity, and the importance of the environment to our well being, the resolution of tensions between them is one of the most important tasks of our legal and political systems.

Individual landowners have perceived environmental harms largely in terms of unreasonable interference with land use created by neighbors. For many centuries, such allegations have been the subject of nuisance law.⁸ Common law private nuisance actions, like other tort actions, are intended to rectify harms to individual rights. Similarly, public nuisance actions rectify harms to the rights of aggregates of individuals within a community. Thus, property rights, including those in environmental amenities, were protected by an approach through which past harms were compensated and future harms thus discouraged.

³ The term “property” is a very broad one, encompassing not only things over which an individual might have dominion, but also other tangible and intangible rights, the potential possession of which are the attributes of fully participating adults in a civilized society. See John Locke, *The Second Treatise of Government*, in TWO TREATISES OF GOVERNMENT (ed. Peter Laslett) §123 (1965) (“Lives, Liberties, and Estates, which I call by the general Name, *Property*.”); *Property*, 1 NATIONAL GAZETTE, Mar. 29, 1792, at 174, reprinted in 4 LETTERS AND OTHER WRITINGS OF JAMES MADISON 480 (1865) (“As a man is said to have a right to his property, he may be equally said to have a property in his rights.”).

⁴ See *Hage v. United States*, 35 Fed. Cl. 147 (1996). “The Anglo-American case precedent is literally made up of tens of thousands of cases defining property rights over the better part of a millennium.” *Id.* at 151.

⁵ James Madison, *Property*, NAT’L GAZETTE, Mar. 29, 1792, reprinted in 14 THE PAPERS OF JAMES MADISON 266 (R. Rutland et al. eds., 1983) (emphasis in original); see also, *Kelo v. City of New London*, 545 U.S. 469, 505 (O’Connor, J., dissenting) (2005) (quoting most of this language).

⁶ JENNIFER NEDELSKY, PRIVATE PROPERTY AND THE LIMITS OF AMERICAN CONSTITUTIONALISM 92 (1990) (“The great focus of the Framers was the security of basic rights, property in particular, not the implementation of political liberty.”).

⁷ JAMES W. ELY, JR., THE GUARDIAN OF EVERY OTHER RIGHT (2d ed. 1998).

⁸ See Julian Morris, *Climbing Out of the Hole: Sunsets, Subjective Value, the Environment, and the English Common Law*, 14 FORDHAM ENVTL. L.J. 343, 347–48 (2003) (tracing the action for nuisance to the writ of novel disseisin, instituted in 1166 to protect the rights of dispossessed owners). There is evidence that Roman Law contained similar rules and that earlier customary courts in English employed similar rules as well. *Id.* at 347 n.12 (citing Daniel R. Coquillette, *Mosses from an old Manse: Another Look at some Historic Cases About the Environment*, 64 CORNELL L. REV. 761, 765–66 (1979)).

Where conduct harmful to the property rights of others might nonetheless result in a net benefit to society, consensual adjustments could be made by the parties themselves. By employing easements, covenants, and similar devices, individuals could sell the right to be free from trespass and nuisance. The erstwhile victim would be compensated in full by his or her own lights, and the erstwhile tortfeasor could engage in the more valuable activity. No elaborate government inquiry was required to ascertain if the compensation was more or less than sufficient, since each party preferred the bargain to his or her former position.⁹ Perhaps paradoxically, it is only by the assurance of well-defined property rights that property becomes more adaptable and flexible.

In recent decades, however, theorists have posited the “disintegration” or “entropy” of property and agnosticism as to whether longstanding property rights should have a preferred position to conflicting claims.¹⁰ This goes hand in glove with objections to the adjustment of environmental claims through consensual bargaining and common law nuisance. Many of these protestations are practical in nature, although often surmountable.¹¹ Others simply reflect what Dean James Huffman has called “a philosophical objection to capitalism combined with a revival of the progressivist belief in scientific management.”¹²

Concomitant with the de-emphasis of the common as a means of harmonizing property and environmental concerns has been the growth of environmental regulation by statute. Since the 1970s, environmental protection largely has become a “top down” process, in three senses of that term. One is centralization of policymaking. Sweeping federal environmental statutes largely have supplanted the States’ police powers.¹³ Another is the collectivization of rights. While the common law vindicated the rights of individuals and groups of individuals in a community with similar claims, modern environmental statutes envision collective rights that go beyond the sum of individual rights. Finally, the mode of vindication of rights has

⁹ See James M. Buchanan, *Rights, Efficiency, and Exchange: The Irrelevance of Transaction Cost*, reprinted in *ECONOMICS: BETWEEN PREDICTIVE SCIENCE AND MORAL PHILOSOPHY* 161 (Robert D. Tollison & Victor J. Vanberg eds., 1987) (quoted in Todd J. Zywicki, *A Unanimity-Reinforcing Model of Efficiency in the Common Law: An Institutional Comparison of Common Law and Legislative Solutions to Large-Number Externality Problems*, 46 *CASE W. RES. L. REV.* 961, 974 n.42 (1996)).

¹⁰ See *infra* Part III.A.

¹¹ See *infra* Part III.C.

¹² James L. Huffman, *Markets, Regulation, and Environmental Protection*, 55 *MONT. L. REV.* 425, 427 (1994).

¹³ See *infra* Part II.C.

gone from the case-by-case accretion of precedent associated with the common law to the categorical delineation of rights promulgated by comprehensive laws.

I. ENVIRONMENTAL IMPERATIVES

Since the 1970s, concern about the environment has become ensconced in America's pantheon of moral imperatives—what Justice Holmes referred to as “can't helps.”¹⁴ But visceral conviction must be supplemented with a clearer understanding of our use of the term “environment” and the nature of our ecology. Also, it must be tempered by considerations of individual liberty.¹⁵

Professor Carol Rose has noted that property rights and property regulation are “aligned in a set of evolutionary overlapping relationships.”¹⁶ Professor Bruce Yandle referred to the evolution of property rights and regulation vis-à-vis the environment in terms of the Schumpeterian model of “creative destruction,” moving from an open access regime to rules for resource use, to full-blown property rights.¹⁷ Our understanding of the environment has evolved as well.

A. Defining the Environment

“Environmental problems,” and hence, environmental protection, are social constructs.¹⁸ In practice, the term “environment” is used as a reification that encompasses aspects of biological, physical, aesthetic and cultural significance. Legal definitions of “environment” tend to be gauzy,¹⁹ and legislative statements of environmental goals

¹⁴ See Letter from Oliver Wendell Holmes, Jr., to Lewis Einstein (June 17, 1908), in *THE ESSENTIAL HOLMES: SELECTIONS FROM THE LETTERS, SPEECHES, JUDICIAL OPINIONS AND OTHER WRITINGS OF OLIVER WENDELL HOLMES, JR.* 70 (Richard A. Posner ed., 1992) (“as I have said before all I mean by truth is what I can't help thinking. But my can't helps are outside the scope of exhortation.”).

¹⁵ See *infra* Part III.

¹⁶ Carol M. Rose, *Property Rights, Regulatory Regimes and the New Takings Jurisprudence—An Evolutionary Approach*, 57 *TENN. L. REV.* 577, 577–78 (1990).

¹⁷ Bruce Yandle, *Creative Destruction and Environmental Law*, 10 *PENN ST. ENVTL. L. REV.* 155, 157–58 (2002) (citing JOSEPH SCHUMPETER, *CAPITALISM, SOCIALISM AND DEMOCRACY* (Harper 1975) (1942)).

¹⁸ See Elizabeth Ann R. Bird, *The Social Construction of Nature: Theoretical Approaches to the History of Environmental Problems*, *ENVTL. REV.*, Winter 1987, at 255. Bird asserts that environmental problems are socially constructed, since “scientific knowledge should not be regarded as a *representation* of nature,” because, in turn, “the philosophy, history, and sociology of science in the last twenty-five years have increasingly asserted and affirmed the relativism of any particular scientific claims about nature. *Id.* at 255.

¹⁹ See, e.g., N.Y. *ENVTL. CONSERV.* § 8–0105(6) (McKinney 2008) (Environment is defined as the “physical conditions which will be affected by a proposed action, including land, air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance, existing patterns of population concentration, distribution, or growth, and existing community or neighborhood character.”).

even more so.²⁰ Given the breadth of its subject matter, however, a thoughtful definition of “environmental law” necessarily displays a high level of generality:

Broadly stated, environmental law regulates human activity in order to limit ecological impacts that threaten public health and biodiversity. Its premise is not that any human transformation of the ecosystem should be *per se* unlawful. Environmental law’s objective is far more nuanced. It accepts, in light of the laws of thermodynamics, that ecological transformation is both unavoidable and very often desirable, yet it seeks to influence the kind, degree, and pace of those transformations resulting from human activity.²¹

In addition to a lack of specificity, however, the term “the environment” manifests profound ambiguity. The primary dictionary definition of “environment” is “surroundings.”²² The word’s secondary meaning involves the combination of conditions affecting organisms, both biological and cultural.²³ “Environment” was used in connection with surroundings as early as the 14th century, but in connection with modern ecological concerns only since the mid-20th century.²⁴

From a philosophical or psychological perspective, the concept of *Gestalt* often denotes the study of the relationship between foreground and background.²⁵ To the extent that the environment

²⁰ See, e.g., N.Y. ENVTL. CONSERV. § 8–0101 (McKinney 2008) (“It is the purpose of this act to declare a state policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and enhance human and community resources; and to enrich the understanding of the ecological systems, natural, human and community resources important to the people of the state.”).

²¹ RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW I* (2004).

²² *THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE*, 4th ed. 2000 (“The circumstances or conditions that surround one; surroundings.”).

²³ *Id.* (“2. The totality of circumstances surrounding an organism or group of organisms, especially: a. The combination of external physical conditions that affect and influence the growth, development, and survival of organisms: ‘We shall never understand the natural environment until we see it as a living organism’ (Paul Brooks). b. The complex of social and cultural conditions affecting the nature of an individual or community.”).

²⁴ *OXFORD ENGLISH DICTIONARY V* at 315 (2d ed. 1989). The Oxford English Dictionary notes that “environment” is derived from the root “environ.” *Id.* The latter term has several citations from the 13th and 14th centuries, referring “[t]o form a ring round, surround, encircle.” *Id.* at 314. In the early 19th century, the familiar usage of environment as one’s surroundings was established, and only in the mid-20th century is the modern environmentalist’s usage cited. By the 1980s, the colloquial “environment friendly” usage came into vogue. See *id.* at 315.

²⁵ *OXFORD ENGLISH DICTIONARY VI* at 414 (2d ed. 1989) (“A ‘shape’, ‘configuration’, or ‘structure’ which as an object of perception forms a specific whole or unity incapable of expression simply in terms of its parts (e.g. a melody in distinction from the notes that make it up.”).

constitutes a backdrop, and that the plane of our focus is on the needs and comforts of our human society, the goal of environmental regulation is the prevention of unreasonable interference with land uses. This concern is both the genesis of nuisance law and the principal justification of zoning.²⁶ On the other hand, if we view the environment as the foreground, we are drawn to the concept of “biodiversity,” which encompasses approximately 1.5 million named and catalogued species, and perhaps 3 million to 30 million unnamed species.²⁷ The environment, thus viewed, also encompasses genetic diversity within reproductive populations and diversity of habitat.²⁸ Indeed, just as habitat affects diversity of species, diversity of species affects habitat.²⁹

Given the almost ubiquitous use of the phrase “the environment” in recent decades, searching for meaning in its etymology might seem superfluous. However, a necessary precursor to the rectification of rights is the rectification of names. As Confucius admonished, rectification of names is the most important function of government. Unless things are called by their proper names, they can neither be understood nor properly dealt with.³⁰ Our failure to do this has an adverse effect on civic values and scientific judgments, and makes legislation and subsequent court judgments unjust.³¹

Such foundational questions are abstract and complex. They are not amenable to thorough examination by our political system, which tends to illuminate them by the diffused glow of aspirational statutes, or by our legal institutions, which subjects them to the harsh spotlight of litigated cases. Furthermore, underlying most environmental conflicts is a lack of agreement on appropriate baselines. Whether one focuses on the ecosphere as a whole, the flourishing of humankind, or the liberty interests and level of environmental amenities inherent in private ownership, alleged departures from the norm must be measured from benchmarks, for which consensus must be obtained.

²⁶ See *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 387–88 (1926) (noting that nuisance may be consulted “for the helpful aid of its analogies in the process of ascertaining the scope of, the [police] power” in land use regulation).

²⁷ See, John Harte, *Land Use, Biodiversity, and Ecosystem Integrity: The Challenge of Preserving Earth's Life Support System*, 27 *ECOLOGY L.Q.* 929, 933 (2001).

²⁸ *Id.*

²⁹ *Id.* at 934–35.

³⁰ CONFUCIUS, *THE ANALECTS* bk. XIII, at 171–72 (A. Waley trans. 1938) “If language is incorrect, then what is said does not concord with what was meant; and if what is said does not concord with what was meant, what is to be done cannot be effected.” *Id.*

³¹ See Gideon Kanner, *The Public Use Clause: Constitutional Mandate or “Hortatory Fluff”?*, 33 *PEPP. L. REV.* 335, 350 (2006).

Adopting a neo-Kantian position, some environmentalists might say that the environment has a value, not a price.³²

Deep ecology is founded on two basic principles: one is a scientific insight into the interrelatedness of all systems of life on Earth, together with the idea that *anthropocentrism*—human-centeredness—is a misguided way of seeing things. Deep ecologists say that an *ecocentric* attitude is more consistent with the truth about the nature of life on Earth. Instead of regarding humans as something completely unique or chosen by God, they see us as integral threads in the fabric of life

The second component of deep ecology is . . . need for human self-realization. Instead of identifying with our egos or our immediate families, we would learn to identify with trees and animals and plants, indeed the whole ecosphere. . . .³³

Along these lines, Professor Christopher Stone wrote in a well known and provocative article, *Should Trees Have Standing*,³⁴ that environmental policy should be recast in biocentric rather than anthropocentric terms, with natural objects being accorded legal protection. “[U]ntil the rightless thing receives its rights, we cannot see it as anything but a *thing* for the use of ‘us’—those who are holding rights at the time.”³⁵ Stone also asserted that while “repairable damage to the environment might be balanced and weighed, irreparable damage could be enjoined absolutely.”³⁶

While the deep ecologist’s perspective might be that humans simply are “integral threads in the fabric of life,”³⁷ there is a more broadly held perspective:

[A]n environmentalist’s distaste for the materialistic ideals that undergird the root causes of climate change does not make attempting to thwart those ideals either practical or

³² See IMMANUEL KANT, *GROUNDWORK FOR THE METAPHYSICS OF MORALS* 235 (Thomas E. Hill, Jr. & Arnulf Zweig eds., Arnulf Zweig trans., 2002).

³³ David Barnhizer, *Walking from Sustainability’s “Impossible Dream”*: the *Decisionmaking Realities of Business and Government*, 18 *GEO. INT’L ENVTL. L. REV.* 595, 614 n.49 (2006) (quoting Alan Atkisson, *Introduction to Deep Ecology*, IN *CONTEXT*, Summer 1989, at 24, available at <http://www.context.org/ICLIB/IC22/Zimmerman.htm> (Interview with Michael E. Zimmerman)).

³⁴ See Christopher D. Stone, *Should Trees Have Standing? Toward Legal Rights for Natural Objects*, 45 *S. CAL. L. REV.* 450 (1972).

³⁵ *Id.* at 455.

³⁶ *Id.* at 485–86.

³⁷ Barnhizer, *supra* note 33, at 614 n. 49.

justified morally. Conspicuous consumption is deeply entrenched in American self-conceptions, and in conceptions of Americans by people in the developing world who want to be like them.

[I]t is both unwise and counter-democratic to tell billions of consumers that “We Know Better,” and set about changing deep structures without regard to the life-defining goals of the consumers themselves. Such action is unwise because it pins the biosphere’s integrity on the hope of overcoming something deeply ingrained in Western culture. And it is counter-democratic because, until the members of that culture change its constitutive forces, overcoming them in the name of a paternalistic deep environmentalism thwarts their clearly expressed preferences.³⁸

Generally speaking, overarching environmental concerns seem more amenable to the top-down imposition of categorical prohibitions as positive law. Utilitarian balancing, on the other hand, is more amenable to dealing with imperfect knowledge and heterogeneous tastes for environmental goods through the bottom-up and flexible approach of the common law.

Complicating the debate is that the imposition of stringent environmental restrictions has vast consequences for the distribution of wealth.³⁹ In their consumptive activities, individuals seek different amounts and types of environmental amenities, which sometimes are in conflict. In their productive capacity, individuals often face concentrated gains or losses, depending upon whether environmental controls hinder or abet their work.

B. Environmentalism and “Eco-Pragmatism”

One might avoid utilitarian tests through the simple declaration that protection of the ecology is not negotiable. Such categorical proclamations are not unprecedented in American law. As a notable example, the United States Code has maintained for almost a century that human labor is not a commodity.⁴⁰ The Endangered Species Act

³⁸ Jay Michaelson, *Geoengineering: A Climate Change Manhattan Project*, 17 STAN. ENVTL. L. J. 73, 132–33 (1998).

³⁹ See LAZARUS, *supra* note 21, at 24–28. “What feeds much of what is controversial about environmental law is . . . the enormous distributional conflicts unavoidable in the establishment of a legal regime for environmental protection.” *Id.* at 24.

⁴⁰ Clayton Antitrust Act of 1914, 15 U.S.C. § 17 (2000) (declaring that “the labor of a human being is not a commodity or article of commerce.”). See generally, Horacio Spector, *Philosophical Foundations of Labor Law*, 33 FLA. ST. U. L. REV. 1119, 1136–37 (2006).

(ESA)⁴¹ is the striking example of an environmental statute propounding an absolute priority instead of a balancing test. It provides that every federal agency “shall . . . insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of *any* endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. . . .”⁴²

The ESA was upheld by the Supreme Court in *Tennessee Valley Authority v. Hill*,⁴³ in which Chief Justice Warren Burger described the ESA as “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.”⁴⁴

It may seem curious to some that the survival of a relatively small number of three-inch fish among all the countless millions of species extant would require the permanent halting of a virtually completed dam for which Congress has expended more than \$100 million. . . . We conclude, however, that the explicit provisions of the Endangered Species Act require precisely that result.⁴⁵

[T]he plain language of the Act, buttressed by its legislative history, shows clearly that Congress viewed the value of endangered species as “incalculable.” Quite obviously, it would be difficult for a court to balance the loss of a sum certain—even \$100 million—against a congressionally declared “incalculable” value, even assuming we had the power to engage in such a weighing process, which we emphatically do not.⁴⁶

Even here, however, pragmatism prevailed in that the Tellico Dam ultimately was placed in service.⁴⁷ More generally, the ESA was

⁴¹ Endangered Species Act of 1973, 16 U.S.C. § 1531, et. seq.

⁴² *Id.* at § 1536 (a)(2) (emphasis added). The ESA regulations define “jeopardize” to mean “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02 (2005).

⁴³ 437 U.S. 153 (1978).

⁴⁴ *Id.* at 180.

⁴⁵ *Id.* at 172–73.

⁴⁶ *Id.* at 187–88.

⁴⁷ A midnight rider on an appropriations bill abrogated the ESA as it pertained to Tellico, 125 Cong. Rec. H1503, June 18, 1979; Energy and Water Development Appropriation Act of 1980, Pub. L. No. 96–69, 93 Stat. 437, 449–50. The Little Tennessee Valley was flooded in November 1979. According to one account, President Jimmy Carter “anguished” over his decision not to veto the rider, and called environmentalists “sheepishly to apologize.” Zygmunt

modified to provide for an “Endangered Species Committee,” empowered to grant an exception after employing a balancing test, albeit one weighted towards preservation.⁴⁸

Despite (or perhaps because of) Chief Justice Burger’s figurative raised eyebrow, in an online national poll of environmental law professors, nearly twice as many respondents selected *TVA v. Hill* as one of the ten most important court cases in the history of environmental law as voted for any other case.⁴⁹

Alternatively, one could adopt a pragmatic approach towards the environment. One notable example is Professor Daniel Farber’s “eco-pragmatism,” which advocated an “environmental baseline” against which public and private development activities could be measured. As he advocates, “[t]o the extent feasible without incurring costs grossly disproportionate to any benefit, the government should eliminate significant environmental risks.”⁵⁰ The book was attacked as articulating a “wobbly” theory lacking in structural coherence, permitting Farber “to overestimate the social consensus behind his own preferred outcomes, so that he never articulates or responds to views that are foreign to his environmental parade.”⁵¹

Even where environmental law seems to focus on the protection of a natural system purely for the sake of that natural system—as in the protection of an endangered species where there is no known or likely utilitarian benefit to humans—in most cases pragmatic political advocacy of such natural protections must seek and emphasize linkages to human welfare.⁵² The federal appointment of a “God Squad” to remove species from the protection of the Endangered Species Act suggests an intermediate, “eco-pragmatic” approach.⁵³

J.B. Plater, *Endangered Species Act Lessons Over 30 Years, And the Legacy of the Snail Darter, a Small Fish in a Pork Barrel*, 34 ENVTL. L. 289, 294 n.15 (2004).

⁴⁸ 16 U.S.C. § 1536(h) (2000). See *infra* note 53 and accompanying text.

⁴⁹ Plater, *supra* note 47, at 294 n.17 (citing poll by American University law professor James Salzman).

⁵⁰ DANIEL A. FARBER, *ECO-PRAGMATISM: MAKING SENSIBLE ENVIRONMENTAL DECISIONS IN AN UNCERTAIN WORLD* 131 (1999).

⁵¹ Richard A. Epstein, *Too Pragmatic by Half*, 109 YALE L.J. 1639, 1641–42 (2000) (book review).

⁵² See Zygmunt J.B. Plater, *The Embattled Social Utilities of the Endangered Species Act—A Noah Presumption and Caution Against Putting Gasmasks on the Canaries in the Coalmine*, 27 ENVTL. L. 845, 852–53 (1997) (“The ESA is clearly stronger if it is publicly recognized to fulfill significant utilitarian functions . . .”) (emphasis in original).

⁵³ See, e.g., J.B. Ruhl, *Is the Endangered Species Act Eco-pragmatic?*, 87 MINN. L. REV. 885, 913–14 (2003). In this article, Ruhl discusses the provision added to the ESA in 1978 permitting an Endangered Species Committee (commonly known as the “God Squad”) to remove protection where there are “no reasonable alternatives to the proposed action, the benefits of the proposed action clearly outweigh the benefits of avoiding jeopardy, and the action is of regional or national significance.” *Id.* (citing 16 U.S.C. § 1536(h)(1)). This

It is easy for positive law increasingly to encroach upon the common law, and for a process of regulatory accretion to add binding operational prescriptions to what were largely aspirational statutes.⁵⁴ However, problems of regulatory complexity are not appreciably different from problems of environmental complexity.

System burdens arise from the collective operation of rules. Drawing from complex systems theory—the study of large systems of dynamically related agents—we explain how regulatory systems exhibit behaviors such as feedback, emergence, path dependence, and nonlinearity, all of which simultaneously produce overall system resilience and locally unpredictable and unstable outcomes in system behavior. Accretion of a complex system’s agents can amplify these system properties, changing the underlying character of the system itself. It is these qualitative effects on system behavior, principally local unpredictability and instability, which we equate with system burdens on compliance with regulatory law.⁵⁵

Not only are rules apt to induce instability, but even rules and management practices designed to reduce instability add to instability. As noted in one article on ecosystem stress, “[m]anagement strategies which are directed toward smoothing out marked oscillations in ecosystem behavior which are normal to the long-term maintenance of the system are themselves stressful.”⁵⁶

C. Defining Environmental Law

Pondering the meaning of “the environment” leads to consideration of the nature of environmental law. Professor Dan Tarlock has challenged us to ask what he termed the “Gertrude Stein question”:⁵⁷

procedure has succeeded very infrequently. *Id.* at 914. (citing Patrick A. Parenteau, *The Exemption Process and the “God Squad,”* in *ENDANGERED SPECIES ACT: LAW, POLICY, AND PERSPECTIVES* (Donald C. Baur & William Robert Irvin eds., 2002)).

⁵⁴ See J.B. Ruhl & James Salzman, *Mozart and the Red Queen: The Problem of Regulatory Accretion in the Administrative State*, 91 *GEO. L.J.* 757 (2003).

⁵⁵ *Id.* at 763.

⁵⁶ D. J. Rapport, et al., *Ecosystem Behavior Under Stress*, 125 *AM. NATURALIST* 617, 626 (1985).

⁵⁷ A. Dan Tarlock, *Is There a There There in Environmental Law?*, 19 *J. LAND USE & ENVTL. L.* 213–15 (2004). According to Tarlock, the complete quotation on which his title is premised is: “[W]hat was the use of my having come from Oakland it was not natural to have come from there yes write about it if I like or anything if I like but not there, there is no there

Environmental law's rapid rise and great success . . . postponed consideration of the hard questions about the content and legitimacy of the field and environmental protection generally. The relative neglect of these difficult problems is neither surprising nor unknown. It is, however, troubling. The neglect of content and legitimacy is not surprising because environmental law, as we understand it, is still an infant area of the law. Environmental law grew so rapidly and quickly that there was no time, or need, to worry about its jurisprudential underpinnings. It enjoyed the luxury of skipping the stages of debate over fundamentals and incremental growth and acceptance. Debates went directly to the important, but narrower, question about the merits of the suite of policy instruments available to achieve the Congressional protection objectives. This "papering over" has not gone unnoticed. Over the years, many have observed that the impressive formal superstructure of environmental law masks the persistent doubts about the existence of a "there" in environmental law, but the continued stream of law, cases, and regulations pushed these concerns to the background. However, as environmental law continues to mature, the largely neglected questions of content and legitimacy become more troubling and need to be addressed if the area is to sustain itself.⁵⁸

This lack of a central core might explain why, as Professor Joseph Sax ruefully noted, the study of environmental law inevitably leads to statutes of "numbing complexity and detail."⁵⁹

D. Is Environmentalism Based on Ethics or Science?

For most of the twentieth century, the reigning view of ecology was the "equilibrium paradigm," which viewed nature as a system in balance.⁶⁰ It was summed up in Aldo Leopold's land ethic. "A thing is right when it tends to preserve the integrity, stability, and beauty of

there." *Id.* at 214 n.1 (quoting GERTRUDE STEIN, EVERYBODY'S AUTOBIOGRAPHY 289 (1937)).

⁵⁸ *Id.* at 216-17 (footnotes omitted).

⁵⁹ Joseph L. Sax, *Environmental Law in the Law Schools: What We Teach and How We Feel About It*, 19 ENVTL. L. REP. 10251 (1989).

⁶⁰ *E.g.*, Julie Thrower, Comment, *Adaptive Management and NEPA: How a Nonequilibrium View of Ecosystems Mandates Flexible Regulation*, 33 ECOLOGY L.Q. 871, 874 (2006).

the biotic community. It is wrong when it tends otherwise.”⁶¹ Leopold’s ecological conscience was rooted in biocentric equality, the idea that “man is, in fact, only a member of a biotic team, as shown by ecological interpretation of history.”⁶²

Leopold’s notion that everything is connected to everything else is similar to the view of another pioneer environmentalist, John Muir: “[w]hen we try to pick out anything by itself, we find it hitched to everything else in the universe.”⁶³

It was in this framework that environmental law developed. “Just as ecology focused on the adverse consequences of human activity, environmental law focused on preserving and protecting the underlying equilibrium of nature from human disturbance in order to prevent ecological transformation.”⁶⁴

By the 1990s, however, it had become clear that this was not the case. In 1992, ecological pioneer Eugene Odum listed as his first concept in ecology that “[a]n ecosystem is a thermodynamically open, far from equilibrium, system.”⁶⁵

Professor Dan Tarlock noted that “[l]egislatures and lawyers enthusiastically embraced [the equilibrium] paradigm because it seemed to be a neutral universal organizing principle potentially applicable to the use and management of all natural resources.”⁶⁶ Such statutes as the National Environmental Policy Act of 1969,⁶⁷ the Endangered Species Act of 1973,⁶⁸ and parts of the Clean Water Act,⁶⁹ including section 404, are based upon it.⁷⁰

Twenty-five years after this paradigm was incorporated into law, it—and thus the basis for the core of biodiversity protection law—is now unraveling. In the twenty-five years since it has been enshrined in environmental law, the

⁶¹ ALDO LEOPOLD, *A SAND COUNTY ALMANAC* 224–25 (1949).

⁶² *Id.* at 241.

⁶³ JOHN MUIR, *MY FIRST SUMMER IN THE SIERRA* 211 (1911).

⁶⁴ See Thrower, *supra* note 60, at 875. Thus “contemporary ecological research demonstrates that nature continually changes both in response to internal processes, such as chemical cycling, and external pressures, such as climate. Ecological systems are dynamic entities that are constantly changing. Lakshman Guruswamy, *Integration & Biocomplexity*, 27 *ECOLOGY L.Q.* 1191, 1205–06 (2001).

⁶⁵ Eugene P. Odum, *Great Ideas in Ecology for the 1990s*, 42 *BIOSCIENCE* 542, 542 (1992).

⁶⁶ A. Dan Tarlock, *The Nonequilibrium Paradigm in Ecology and the Partial Unraveling of Environmental Law*, 27 *LOY. L.A. L. REV.* 1121, 1122 (1994).

⁶⁷ 42 U.S.C. §§ 4321–4370(d) (2000).

⁶⁸ 16 U.S.C. §§ 1531–1544 (2000).

⁶⁹ Pub. L. No. 95–217, 91 Stat. 1566 (1977) (codified as amended at 33 U.S.C.A. §§ 1251–1387 (West 1986 & Supp. 1993)).

⁷⁰ Tarlock, *supra* note 66, at 1122–23.

equilibrium paradigm has been rejected in ecology and replaced with a complex, stochastic nonequilibrium one.⁷¹

As Tarlock subsequently added, there is a “tendency to respond to the contingencies and uncertainties inherent in environmental science by reclassifying problems as ethical rather than scientific.”⁷² He argued that the displacement of the equilibrium paradigm with the nonequilibrium model would require a corresponding conversion from the preservationist “simple nature veneration ethic” to “a combination of strategies which seek the maintenance of dynamic healthy ecosystems, ecosystem restoration and the increased use of adaptive management.”⁷³ In particular, Tarlock urged that science alone could establish the necessary conditions for legitimate environmentalism, that we should resist the tendency to respond to the uncertainties inherent in science by reclassifying problems as ethical rather than scientific, and that we should avoid grounding environmental law in “non-anthropocentric ‘rights of nature.’”⁷⁴

However, some scholars, reminiscent of Professor Bruce Ackerman’s concept of “constitutional moments,”⁷⁵ have stressed the importance of promulgating environmental mandates “in the heat of widespread political interest.”⁷⁶ As noted by Donald T. Hornstein, “[p]revailing sentiment formed during such times not only represents collective preferences which are democratically legitimate, but also collective preferences which tend to reflect the qualitative attributes of environmental risk that are poorly captured by scientific risk assessments.”⁷⁷

II. THE ECOLOGY OF HUMAN LIBERTY

A. Liberty and Human Flourishing

The basic premise of mainstream environmentalism and environmental law is that human flourishing can occur only in the

⁷¹ *Id.* at 1123.

⁷² A. Dan Tarlock, *Environmental Law: Ethics or Science?*, 7 DUKE ENVTL. L. & POL’Y F. 193, 196 (1996) (noting that the shift from science to ethics is traced in CHARLES T. RUBIN, *THE GREEN CRUSADE: RETHINKING THE ROOTS OF ENVIRONMENTALISM* (1994)).

⁷³ *Id.* at 194.

⁷⁴ *Id.* at 196.

⁷⁵ See BRUCE ACKERMAN, *THE FUTURE OF LIBERAL REVOLUTION* (1992).

⁷⁶ Donald T. Hornstein, *Lessons from Federal Pesticide Regulation on the Paradigms and Politics of Environmental Law Reform*, 10 YALE J. ON REG. 369, 440 (1993).

⁷⁷ *Id.*

context of a healthy ecosystem. Environmental law protects against “ecological impacts that threaten public health and biodiversity.”⁷⁸

Professor Richard Lazarus noted that the burst of environmental legislation in the 1970s did not arise in a vacuum, but rather followed from many earlier developments.⁷⁹ He attributed much of the change in public perception to the increasingly broad and rapid transmission of information about environmental threats that gave people a sense that the environment was more fragile than they had thought and to the public’s increasing awareness of the Earth as a single entity—stoked especially by the emotional impact of seeing the first pictures of the planet from space.⁸⁰

On the other hand, as Professor Barton Thompson observed, conservatives of varying stripes have been somewhat wary of the environmentalist movement.

Libertarians emphasize individual liberty from governmental interference and from pollution and other forms of nonconsensual harm. Economic conservatives . . . believe that government should pursue those policies, including environmental policies, that are efficient in maximizing the overall economic welfare of society. “Jeffersonian Conservatives” endorse the devolution of governmental authority, including environmental regulation, to state and local governments. “Hamiltonian Conservatives,” by contrast, advocatenational authority, used to support economic development and growth, and thus may disfavor environmental regulation that impedes economic markets. Finally, “Burkean Conservatives” may favor environmental protection but insist upon firm scientific support for new regulations and distrust dramatic shifts in policy.⁸¹

One strand of conservatism explicitly omitted from Thompson’s analysis is religious conservatism, since he regarded the attitudes of adherents as unclear.⁸² One source of resistance is the fear that environmentalism is not compatible with traditional religious belief.⁸³

⁷⁸ LAZARUS, *supra* note 21, at 1.

⁷⁹ *Id.* at 49 (citing, inter alia, the creation of national parks, the Migratory Bird Treaty Act of 1918, the National Wildlife Refuge Administration Act of 1966).

⁸⁰ *Id.* at 55–56.

⁸¹ Barton H. Thompson, Jr., *Conservative Economic Thought: The Bush Administration and Environmental Policy*, 32 *ECOLOGY L.Q.* 307, 312–13 (2005) (footnotes omitted).

⁸² *Id.* at 312 n.16.

⁸³ See, e.g., Robert H. Nelson, *Environmental Religion: A Theological Critique*, 55 *CASE W. RES. L. REV.* 51, 51 (2004) (“Environmentalism is a type of modern religion.”). Nelson highlighted the statement of a leading environmental law scholar that “he and fellow

However, some fundamentalist Protestant groups recently have taken up environmental concerns.⁸⁴

Another important fault line in American perceptions is whether environmental amenities are associated with negative or positive liberty. As described by Isaiah Berlin, “negative” liberty is the right of individuals to pursue their chosen activities free from external social interference by others.⁸⁵ The concept of negative liberty often is associated with John Stuart Mill, who declared that “[t]here is a limit to the legitimate interference of collective opinion with individual independence: and to find that limit, and maintain it against encroachment, is as indispensable to a good condition of human affairs, as protection against political despotism.”⁸⁶ Correspondingly, “positive” liberty consists of the entitlement to social conditions allowing for the effective exercise of an individual’s judgment and choice in providing direction to his or her life.⁸⁷ In the American legal system, which is predisposed to individual rights,⁸⁸ property is protected under the Takings⁸⁹ and Contract Clauses,⁹⁰ but the provision of goods, such as access to housing, generally is not regarded as a fundamental right.⁹¹ To be sure, individuals often possess “entitlements,” which are affirmative benefits provided by statute and cognizable by the courts. However, entitlements generally are subject to termination or the imposition of future conditions by the legislature.⁹² In short, “the Constitution is a charter of negative rather

preservationists were ‘secular prophets, preaching a message of secular salvation.’” *Id.* at 51 (quoting JOSEPH L. SAX, MOUNTAINS WITHOUT HANDRAILS: REFLECTIONS ON THE NATIONAL PARKS 104 (1980)).

⁸⁴ See, e.g., National Association of Evangelicals, Evangelical, Scientific Leaders Launch Effort to Protect Creation (January 17, 2007) (noting the “Urgent Call to Action” issued by 28 religious leaders and scientists concerned about “habitat destruction, pollution, species extinction, the spread of human infectious diseases, and other dangers to the well-being of societies.” Available at <http://www.nae.net/index.cfm?FUSEACTION=editor.page&pageID=413&IDcategory=1> (last visited Mar. 30, 2007)).

⁸⁵ ISAIAH BERLIN, *Two Concepts of Liberty*, in *FOUR ESSAYS ON LIBERTY* 118 (1969). A more general formulation poses the question: “Is x is free from y to do z.” See Gerald C. MacCallum, Jr., *Negative and Positive Freedom*, 76 PHIL. REV. 312, 314 (1967).

⁸⁶ John Stuart Mill, *On Liberty*, in *UTILITARIANISM: ON LIBERTY; ESSAY ON BENTHAM* 126, 130 (Mary Warnock ed., New American Library 1962) (1859).

⁸⁷ *Id.* at 130–31.

⁸⁸ See *infra* note 93 and accompanying text.

⁸⁹ U.S. CONST. amend. V. (“[N]or shall private property be taken for public use, without just compensation.”).

⁹⁰ U.S. CONST. art. I, § 10, cl. 1 (“No State shall . . . pass any . . . Law impairing the Obligation of Contracts. . .”).

⁹¹ See *Lindsey v. Normet*, 405 U.S. 56, 74 (1972) (“We are unable to perceive . . . any constitutional guarantee of access to dwellings of a particular quality . . .”).

⁹² See, e.g., *Flemming v. Nestor*, 363 U.S. 603 (1960) (holding Social Security benefits not an accrued property right).

than positive liberties. The men who wrote the Bill of Rights were not concerned that government might do too little for the people but that it might do too much to them.”⁹³

To the extent that environmental amenities are deemed to be property, they are protected by the common law of nuisance. To the extent that the benefit of environmental amenities is created by statute, citizens often have standing to bring lawsuits to protect them.⁹⁴

B. Competition, Coordination, and Human Nature

In his seminal article *Toward a Theory of Property Rights*,⁹⁵ economist Harold Demsetz discussed how individuals could best regulate their exploitation of scarce resources for the general good. He noted that common property would be an inexpensive solution, with the problem of endless negotiations and vice of overuse. The creation of private property rights in resources would internalize the costs of over-exploitation. However, creating, monitoring, and policing property rights are themselves quite expensive. Demsetz concluded that “property rights arise when it becomes economic for those affected by externalities to internalize benefits and costs.”⁹⁶

Garrett Hardin subsequently made much the same point in his celebrated article *The Tragedy of the Commons*,⁹⁷ which laments the fact that the payoff for individuals defecting from the common good exceeds the benefits from cooperation, although cooperation would be of collective benefit to all. As he notes, “[r]uin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons.”⁹⁸ Hardin regarded human population growth as a fundamental environmental problem, and declaimed “the necessity of abandoning the freedom to

⁹³ Jackson v. City of Joliet, 715 F.2d 1200, 1203 (7th Cir. 1983) (citations omitted).

⁹⁴ See, e.g., United States v. Students Challenging Regulatory Agency Procedures, 412 U.S. 669, 686–88 (1973) (granting standing). The Supreme Court noted the “irreducible constitutional minimum of standing” as “the plaintiff must have suffered an ‘injury in fact’ . . . there must be a causal connection between the injury and the conduct complained of . . . [and] must be ‘likely,’ as opposed to merely ‘speculative,’ that the injury will be ‘redressed by a favorable decision.’” Lujan v. Defenders of Wildlife, 504 U.S. 555, 560–61 (1992) (citations omitted). However, compare, Steel Co. v. Citizens for a Better Environment, 523 U.S. 83, 102 (1998) (denying standing); Sierra Club v. Morton, 405 U.S. 727, 734 (1972) (denying standing).

⁹⁵ Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. (PAPERS & PROC.) 347 (1967).

⁹⁶ *Id.* at 354.

⁹⁷ Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

⁹⁸ *Id.* at 1244.

breed.”⁹⁹ He advocated “mutual coercion, mutually agreed upon,” as the means of cutting the Gordian knot.¹⁰⁰

The rub, as Professor James Krier noted, is that a society capable of achieving consensus on coercing its members into cooperation is a society that can cooperate without coercion.¹⁰¹ Krier’s concerns about what he called “question begging” were not limited to the left. He deemed advocates of private property rights and cooperation within markets guilty as well.¹⁰²

Debates in the United States on legal and policy aspects of the environment generally are cast in terms of real property rights versus environmental regulation. However, the “mutual coercion” advocated by Hardin need not lead to the regulatory expropriation feared by property rights advocates. Although environmental regulation is the scene of intense disputes wherein some actors try to deflect costs away from themselves and inflict them on others, broad-based measures such as Pigovian carbon taxes might supply part of the answer. However, “a Pigovian model of government . . . assumes that government is an unimpeachable benefit-cost machine.”¹⁰³ Also, it is difficult to calibrate such taxes¹⁰⁴ and to harmonize with international trade laws.¹⁰⁵

Assuming that property rights must be limited to help achieve environmental goals, fairness would indicate that the costs be imposed broadly upon those who benefit. The Supreme Court recently affirmed its emphasis on this value.¹⁰⁶ The fact that taxes are broad based, and arrogations of specific property are not, is what makes only the latter compensable.¹⁰⁷ The lack of political will to impose broad taxes to meet environmental demands both supports Professor Krier’s point and indicates the strength of the temptation to

⁹⁹ *Id.* at 1248.

¹⁰⁰ *Id.* at 1247.

¹⁰¹ See, e.g., James E. Krier, *The Tragedy of the Commons, Part Two*, 15 HARV. J.L. & PUB. POL’Y 325, 337 (1992).

¹⁰² *Id.* at 339–346. See *supra* text accompanying notes 162–164.

¹⁰³ William A. Fischel & Pery Shapiro, *Takings, Insurance, and Michelman: Comments on Economic Interpretations of “Just Compensation” Law*, 17 J. LEGAL STUD. 269, 285 (1988).

¹⁰⁴ See Johan Albrecht, *The Use of Consumption Taxes to Re-Launch Green Tax Reforms*, 26 INT’L REV. L. & ECON. 88 (2006).

¹⁰⁵ See Richard J. King, *Regional Trade and the Environment: European Lessons for North America*, 14 UCLA J. ENVTL. L. & POL’Y 209 (1996).

¹⁰⁶ *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528, 537 (2005) (“While scholars have offered various justifications for this regime, we have emphasized its role in ‘bar[ring] Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.’”) (quoting *Armstrong v. United States*, 364 U.S. 40, 49 (1960)).

¹⁰⁷ See Eric Kades, *Drawing the Line Between Taxes and Takings: The Continuous Burdens Principle, and its Broader Applications*, 97 NW. U. L. REV. 189 (2002); Eduardo Moisés Peñalver, *Regulatory Taxings*, 104 COLUM. L. REV. 2182 (2004).

impose the cost of environmental remediation upon individual landowners and other targets of opportunity.¹⁰⁸

C. Subsidiarity, Federalism and the Environment

The concept of subsidiarity is important to devising rules for the solution of environmental problems. Until its emergence in American political discourse in the 1990s, familiarity with the subsidiarity principle largely was limited to Catholic social theorists and observers of the European Union.¹⁰⁹ While “subsidiarity” usually is employed with respect to the relative competence of competing institutions to deal with social problems,¹¹⁰ the seminal text makes it clear that, in a fundamental sense, *all* institutions are subsidiary:

Just as it is gravely wrong to take from individuals what they can accomplish by their own initiative and industry and give it to the community, so also it is an injustice and at the same time a grave evil and disturbance of right order to assign to a greater and higher association what lesser and subordinate organizations can do. For every social activity ought of its very nature to furnish help to the members of the body social, and never destroy and absorb them.¹¹¹

In the United States, discussion of subsidiarity often is manifested in the rhetoric of federalism. Likewise, in some States, it is manifested in discussion of the devolution of power under “home rule” charter provisions, although States typically maintain centralized control.¹¹² Subsidiarity should not be confused with citizen consultation. The latter has been recognized as important, both

¹⁰⁸ See *supra* notes 97–102 and accompanying text.

¹⁰⁹ Robert K. Vischer, *Subsidiarity as a Principle of Governance: Beyond Devolution*, 35 IND. L. REV. 103, 103 (2001).

¹¹⁰ *Id.* (noting that when “families, neighborhoods, churches, or community groups can effectively address a given problem, they should. Where they cannot, municipal or state governments should intervene. Only when the lower bodies prove ineffective should the federal government become involved.”).

¹¹¹ Peter Widulski, Bakke, Grutter, and the Principle of Subsidiarity, 32 HASTINGS CONST. L.Q. 847, 847 (2005) (quoting Pius XI, *Quadragesimo anno*, § 79 (1931), and noting Pope Pius’ statement that the principle of subsidiarity “remains fixed and unshaken in social philosophy”).

¹¹² More commonly, municipal corporations possess only those powers provided them by the state constitution and legislature using a narrow interpretation known as “Dillon’s Rule.” See JOHN F. DILLON, COMMENTARIES ON THE LAW OF MUNICIPAL CORPORATIONS 448–55 (5th ed. 1911). Some three-quarters of the States still utilize this interpretive rule to limit some or all types of local decisionmaking. See Chad D. Emerson, *Making Main Street Legal Again: The SmartCode Solution to Sprawl*, 71 MO. L. REV. 637, 680 n. 249 (2006) (citing Jesse J. Richardson, Jr. et al., *Is Home Rule the Answer? Clarifying the Influence of Dillon’s Rule on Growth Management* 17–18 (Brookings Inst. on Urb. & Metro. Pol’y, Working Paper, 2003), available at <http://www.brookings.edu/es/urban/publications/dillonsrule.pdf>).

“as a way to increase government legitimacy and to address some of these perceived flaws in the operation of the administrative state.”¹¹³ Indeed, it has been asserted that, during the past generation, “courts, Congress, and scholars have elevated participation to a sacrosanct status.”¹¹⁴ The trend towards increased consultation exists as well at the international level. For instance, the 1992 Rio Declaration on Environment and Development states that “[e]nvironmental issues are best handled with the participation of all concerned citizens, at the relevant level,” and that “States shall facilitate and encourage public awareness and participation by making information widely available. . . .”¹¹⁵

While consultation involves input into decisionmaking, subsidiarity involves devolution, or a respectful deference, in the making of decisions by the individuals or groups composing larger entities. In the international sphere, decisions may be kept in the hands of the nation state instead of the international entity. Similarly, federalism provides that national governance yield to regional governance, and home rule provides that regional governance yield to local governance. The epitome of subsidiarity is that governments of all kinds yield to the decisionmaking autonomy of individuals.

Subsidiarity, referring to local government, or, in the case of the European Union, national government, furthers self-determination and accountability, political liberty, flexibility, preservation of identities, and diversity.¹¹⁶ These factors are just as applicable to decisions being made at the individual level, such as decisions to assert common law environmental rights.

Concerns about the environment and subsidiarity have grown in recent decades in the United States, reflecting the growing assertiveness of both Congress and the federal courts in this area. In recent decades, so-called “institutional lawsuits” have resulted in “institutional decrees” by which federal courts have come to administer, among other agencies, state mental health and prison systems and local school districts.¹¹⁷ The scope of such remedial action has raised questions about “whether the judiciary has begun to

¹¹³ David L. Markell, *Understanding Citizen Perspectives on Government Decision Making Processes as a Way to Improve the Administrative State*, 36 ENVTL. L. 651, 653 (2006).

¹¹⁴ Jim Rossi, *Participation Run Amok: The Costs of Mass Participation for Deliberative Agency Decisionmaking*, 92 NW. U. L. REV. 173, 174-75 (1997).

¹¹⁵ Rio Declaration on Environment and Development, princ. 10, June 14, 1992, 31 I.L.M. 874.

¹¹⁶ George A. Bermann, *Taking Subsidiarity Seriously: Federalism in the European Community and the United States*, 94 COLUM. L. REV. 331, 340-41 (1994).

¹¹⁷ Paul J. Mishkin, *Federal Courts as State Reformers*, 35 WASH. & LEE L. REV. 949, 949 (1978).

tolerate in itself a blending of functions that would never be tolerated in another branch of government.”¹¹⁸

During the past forty years, Congress has legislated a large array of social legislation, establishing new responsibilities for environment protection and public health, entitlements to them, and means to enforce them. Notable among them are the Motor Vehicle Pollution Control Act of 1965,¹¹⁹ the Air Quality Act of 1967,¹²⁰ and the Clean Air Act Amendments in 1990.¹²¹ In addition, Congress has centralized powers in new federal agencies, such as the Environmental Protection Agency, to make environmental policy and to enforce those policies through rulemaking.¹²²

While Congress has reserved a substantial role for states in most environmental statutes, particularly pertaining to the implementation and enforcement of federal standards, Congress has kept most of the fundamental policy-making authority for itself or the federal agencies.¹²³ The proliferation of federal statutes has been accompanied by increased federal spending for regulatory programs, and many states have become dependent on federal funding to help run their own environmental programs.¹²⁴

Subsidiarity has its adherents in the field of environmental law.¹²⁵ It also is instructive to note that, while the effect of sweeping federal judicial decrees on federalism has troubled commentators,¹²⁶ there is

¹¹⁸ Robert F. Nagel, *Separation of Powers and the Scope of Federal Equitable Remedies*, 30 STAN. L. REV. 661, 661 (1978).

¹¹⁹ Motor Vehicle Air Pollution Control Act of 1965, 42 U.S.C. § 7521 (2000).

¹²⁰ Air Quality Act of 1967, 42 U.S.C. § 7401 (2000).

¹²¹ Clean Air Act Amendments of 1990, 42 U.S.C. §§ 7401–7671(q) (2000).

¹²² President Nixon created the Environmental Protection Agency by Executive Order in 1970. 3 C.F.R. 1072 (1970) (Reorganization Plan No. 3 of 1970. Other new agencies included the Office of Surface Mining, the Office of Coastal Zone Management, the Occupational Safety and Health Administration, the Council on Environmental Quality, and the Natural Resources Division of the Justice Department).

¹²³ See Jonathan Remy Nash, *The Illusion of Devolution in Environmental Law*, 38 URB. LAW. 1003 (2006).

¹²⁴ John P. Dwyer, *The Practice of Federalism Under the Clean Air Act*, 54 MD. L. REV. 1183, 1185 (1995).

¹²⁵ See James L. Huffman, *The Past and Future of Environmental Law*, 30 ENVTL. L. 23, 31 (2000) (observing that, in environmental matters, “[p]erhaps Americans are moving toward the regulatory philosophy of subsidiarity—the principle that the best government is that which is the least centralized yet still adequate to accomplish the task at hand”); Wallace E. Oates, *On Environmental Federalism*, 83 VA. L. REV. 1321, 1322 (1997) (arguing that opposition to decentralized environmental regulation “represents a fundamental inconsistency with the basic principle of subsidiarity to which the European Community has subscribed”).

¹²⁶ See, e.g., Mishkin, *supra* note 117, at 964–65; Robert F. Nagel, *Separation of Powers and the Scope of Federal Equitable Remedies*, 30 STAN. L. REV. 661, 674–75 (1978). *But see*, William A. Fletcher, *The Discretionary Constitution: Institutional Remedies and Judicial Legitimacy*, 91 YALE L.J. 635, 637, 644–45 (1982).

evidence indicating that courts, including the Supreme Court, “can almost never be effective producers of significant social reform.”¹²⁷

Another reason for increased subsidiarity in the United States, including the rectification of environmental harms under common law nuisance, is that the Constitutional basis for federal environmental regulation is weak. Professor Richard Lazarus, a strong supporter of environmental legislation, candidly admits that the Property Clause¹²⁸ provides Congress plenary authority, but only on federal land, and that the Spending Clause¹²⁹ is limited to the federal purse.¹³⁰

At least in recent history, the only clause susceptible to a broader reading has been the Constitution’s Commerce Clause (Art. I, § 8, cl. 3), which authorizes Congress to regulate interstate commerce. An expansive reading of that clause authorizes federal legislation for environmental protection based on the theory that activities adversely affecting the environment have substantial effects on interstate commerce. The vast majority of modern federal environmental legislation is based on just such a reading of the Commerce Clause and has, to date, been upheld by the courts when challenged. The fit is nonetheless theoretically uneasy. The rhetoric of the Commerce Clause itself suggests the problem: it makes congressional control dependent on a commercial nexus. Commerce possessing a substantial interstate dimension is what the Constitution isolates as being of sufficient national interest to warrant the exercise of federal authority. The problem for environmental protection lawmaking is that, although commerce is certainly of central relevance to environmental protection, it is not ultimately that area of law’s central concern.

To base the validity of federal lawmaking authority for environmental protection on a commercial nexus invariably invites the creation of tortured legal arguments and legal fictions. . . .¹³¹

¹²⁷ GERALD N. ROSENBERG, *THE HOLLOW HOPE: CAN COURTS BRING ABOUT SOCIAL CHANGE?* 338 (1991) (noting also that “[a] court’s contribution . . . is akin to officially recognizing the evolving state of affairs, more like the cutting of the ribbon on a new project than its construction.”) (emphasis in original).

¹²⁸ U.S. CONST. art. IV, § 3, cl. 2.

¹²⁹ *Id.* at art. I, § 8, cl. 1.

¹³⁰ LAZARUS, *supra* note 21, at 36–37.

¹³¹ *Id.* at 37.

The original meaning of “commerce” under the Commerce Clause related narrowly to exchange, and did not include fabrication.¹³² Likewise, the Necessary and Proper Clause was not infinitely expandable, but rather took a middle position between “absolute necessity” and “convenience.”¹³³

In *Rancho Viejo, LLC v. Norton*,¹³⁴ the U.S. Court of Appeals for the District of Columbia Circuit upheld a U.S. Fish and Wildlife Service (FWS) decision to block construction of a 202-acre housing development in San Diego County. The court found the FWS decision consistent with the Commerce Clause, although the arroyo southwestern toad, which it was intended to protect, never travels outside California. After noting that, without the Commerce Clause limitation, “Government could regulate as a take any kind of activity,”¹³⁵ Chief Judge Douglas Ginsburg concurred on the ground that interstate commerce was affected due to the large-scale nature of the development.¹³⁶

In *GDF Realty Investment, Ltd. v. Norton*,¹³⁷ the Fifth Circuit upheld the application of the Endangered Species Act to six species of subterranean invertebrates found only within two counties in Texas (Cave Species). The court conceded that, “in a sense, Cave Species takes are neither economic nor commercial. There is no market for them; any future market is conjecture.”¹³⁸ Even though there was no explicit link to commerce, the court aggregated takes of Cave Species with all takes of all endangered species because. Its rationale was that the Cave Species takes were part of a larger regulation that was “directed at activity that is economic in nature” and because the regulated intrastate activity (Cave Species takes) was an “essential part of the economic regulatory scheme.”¹³⁹

Judge Edith Jones, joined by five others, dissented from the denial of rehearing *en banc* and accused the panel of “craft[ing] a constitutionally limitless theory of federal protection.”¹⁴⁰

¹³² See Robert G. Natelson, *The Legal Meaning of “Commerce” in the Commerce Clause*, 80 ST. JOHN’S L. REV. 789 (2006).

¹³³ See Randy E. Barnett, *The Original Meaning of the Necessary and Proper Clause*, 6 U. PA. J. CONST. L. 183, 208–14 (2003).

¹³⁴ 323 F.3d 1062 (D.C. Cir. 2003).

¹³⁵ *Id.* at 1080 (Ginsburg, C.J., concurring).

¹³⁶ *Id.* (noting the large scope of the proposed development, but adding that “[j]ust as important, however, the lone hiker in the woods, or the homeowner who moves dirt in order to landscape his property, though he takes the toad, does not affect interstate commerce”).

¹³⁷ 326 F.3d 622 (5th Cir. 2003).

¹³⁸ *Id.* at 638.

¹³⁹ *Id.* at 639.

¹⁴⁰ *GDF Realty Investment, Ltd. v. Norton (GDF II)*, 362 F.3d 286, 287 (5th Cir. 2004) (Jones, J., dissenting).

The panel holds that because “takes” of the Cave Species ultimately threaten the “inter-dependent web” of all species, their habitat is subject to federal regulation by the Endangered Species Act. Such unsubstantiated reasoning offers but a remote, speculative, attenuated, indeed more than improbable connection to interstate commerce. Chief Justice Marshall stated in *Cohens v. Virginia* that Congress has no general right to punish murder or felonies generally. Surely, though, there is more force to an “interdependence” analysis concerning humans, and thus a more obvious series of links to interstate commerce, than there is to “species.” Yet the panel’s “interdependent web” analysis of the Endangered Species Act gives these subterranean bugs federal protection that was denied the school children in *Lopez* and the rape victim in *Morrison*.¹⁴¹

The problem is that John Muir’s observation that “[w]hen we try to pick out anything by itself, we find it hitched to everything else in the universe”¹⁴² applies equally to the Commerce Clause. But the fact that environmental restrictions affect landowners development rights, and that this has a subsequent effect on commerce, does not mean that the regulation had any particular connection with commerce.

Since *GDF Realty*, the Supreme Court has retreated from its landmark federalism decisions that gave rise to the disparity cited by Judge Jones.¹⁴³ Notably, in *Gonzales v. Raich*,¹⁴⁴ the Court held that intrastate production and use of marijuana could “undercut” federal efforts to regulate the interstate market and thus could be banned by Congress under the principle enunciated in *Wickard v. Filburn*.¹⁴⁵

D. Environmental Regulation and Wealth Redistribution

Environmentalists and property rights supporters alike agree that the nature of environmental injuries and the degree of scientific certainty regarding their probability are only part of the explanation

¹⁴¹ *Id.* (citing *Cohens*, 19 U.S. (6 Wheat.) 264 (1821)).

¹⁴² JOHN MUIR, MY FIRST SUMMER IN THE SIERRA 211 (1911).

¹⁴³ See *United States v. Lopez*, 514 U.S. 549 (2000) (striking down federal statute criminalizing possession of firearm in vicinity of school absent showing that gun was in interstate commerce); *United States v. Morrison*, 529 U.S. 598 (2000) (deeming civil remedy provisions of federal Violence Against Women Act insufficiently related to interstate commerce).

¹⁴⁴ 545 U.S. 1 (2005) (upholding federal criminalization of possession of marijuana grown and used in California for medical purposes pursuant to state law).

¹⁴⁵ 317 U.S. 111, 125 (1942) (holding that Congress could regulate the production and use of wheat on an individual farm because the aggregate of such uses “exerts a substantial economic effect on interstate commerce.”).

for why environmental law is so controversial. "What feeds much of what is controversial about environmental law is instead the enormous distributional conflicts unavoidable in the establishment of a legal regime for environmental protection."¹⁴⁶ More generally with regard to environmental matters, a society is a "cooperative venture for mutual advantage" where interests coincide and an "arena of conflict" where they do not.¹⁴⁷ Inevitably, the benefits of environmental regulation will inure to those whose spatial, temporal, and vocational situations differ from those bearing the costs, and who may have different recreational preferences, ethical values, and susceptibility to environmental harms, as well.

The potential imposition of high costs upon their members may lead business groups to oppose specific regulations.¹⁴⁸ From another perspective, advocates of "environmental justice" have argued that "the geographic distribution of air and water pollutants, toxic waste sites, and other health and safety hazards is unfair to racial and low-income groups, and that risk regulation should be structured to eliminate this inequity."¹⁴⁹

Just as environmental costs might be imposed on others by those seeking to avoid the expense of desirable environmental regulation, costs likewise might be imposed on others for the benefit of those seeking unwarranted environmental regulation. Environmental group leaders might engage in behavior inconsistent with their stated environmental goals, including self-dealing by insiders and alliances with groups possessing desiring what might be deemed anti-environmental outcomes.¹⁵⁰

While it is conventional to ascribe different motives to businesses and "not for profit" organizations, public choice theory, which studies

¹⁴⁶ LAZARUS, *supra* note 21, at 24.

¹⁴⁷ NICHOLAS MERCURO ET AL., *ECOLOGY, LAW AND ECONOMICS* 77 (1994).

¹⁴⁸ See George B. Wyeth, "Standard" and "Alternative" Environmental Protection: The Changing Role of Environmental Agencies, 31 WM. & MARY ENVTL. L. & POL'Y REV. 5, 9 (2006) (asserting that, under the "standard" model, "business goals and environmental goals [are] conflicting," "relations between government and business are primarily adversarial," and "failing to exploit a resource whose cost could be externalized could be fatal to the corporation").

¹⁴⁹ Matthew D. Adler, *Risk, Death and Harm: The Normative Foundations of Risk Regulation*, 87 MINN. L. REV. 1293, 1424 (2003).

¹⁵⁰ See, e.g., David B. Ottaway & Joe Stephens, *Nonprofit Land Bank Amasses Billions; Charity Builds Assets on Corporate Partnerships*, WASH. POST, May 4, 2003, at A1 ("The Arlington-based Nature Conservancy has blossomed into the world's richest environmental group, amassing \$ 3 billion in assets by pledging to save precious places. . . . Yet the Conservancy has logged forests, engineered a \$ 64 million deal paving the way for opulent houses on fragile grasslands and drilled for natural gas under the last breeding ground of an endangered bird species.").

political processes through economic analysis,¹⁵¹ suggests that this view is not accurate.

The economic (or “interest group”) theory of law, concludes that “legislation is a good demanded and supplied much as other goods, so that legislative protection flows to those groups that derive the greatest value from it, regardless of overall social welfare.”¹⁵² Under the interest group theory of lawmaking, individuals and groups will form alliances and coalitions in order to trade resources, which include power, influence, and money. “[M]arket forces provide strong incentives for politicians to enact laws that serve private rather than public interests, and hence statutes are supplied by lawmakers to the political groups or coalitions that outbid competing groups.”¹⁵³

A quarter-century ago, Professor Bruce Yandle memorably described how self-interest makes for unlikely bedfellows in “Baptists and Bootleggers.”¹⁵⁴ His parable described how bootleggers financially contributed to Southern Baptist campaigns for Sunday blue laws in Southern states, since that would give them a one-day-per-week monopoly on the sale of liquor. Yandle subsequently argued that some industries, or firms within an industry, would play the role of “bootleggers” by contributing to environmental groups. The environmentalists, in turn, played the role of “Baptists,” advocating environmental regulations that would harm the “bootleggers” competitors.¹⁵⁵

Yandle’s thesis was tested by Professor Todd Zywicki, whose empirical study indicated that environmental “public interest” organizations acted inconsistently with a public interest model.¹⁵⁶

¹⁵¹ The seminal works of public choice theory include KENNETH J. ARROW, *SOCIAL CHOICE AND INDIVIDUAL VALUES* (1951); ANTHONY DOWNS, *AN ECONOMIC THEORY OF DEMOCRACY* (1957); and JAMES BUCHANAN & GORDON TULLOCK, *The Calculus of Consent in PHILOSOPHY AND DEMOCRACY* 195 (Thomas Christiano, ed., 2003).

¹⁵² Richard A. Posner, *Economics, Politics, and the Reading of Statutes and the Constitution*, 49 U. CHI. L. REV. 263, 265 (1982).

¹⁵³ Jonathan R. Macey, *Promoting Public-Regarding Legislation Through Statutory Interpretation: An Interest Group Model*, 86 COLUM. L. REV. 223, 224 (1986).

¹⁵⁴ Bruce Yandle, *Bootleggers and Baptists—The Education of a Regulatory Economist*, REGULATION, May–June 1983, at 12, 13–14.

¹⁵⁵ BRUCE YANDLE, *THE POLITICAL LIMITS OF ENVIRONMENTAL REGULATION: TRACKING THE UNICORN* 19–39 (1989).

¹⁵⁶ Todd J. Zywicki, *Baptists?: The Political Economy of Environmental Interest Groups*, 53 CASE W. RES. L. REV. 315 (2002). Zywicki “evaluated the behavior of environmental interest groups in order to test the public interest model in explaining the behavior of environmental interest groups. Although the examination has been more impressionistic than scientific, the model has not fared well. The public interest model suggests at least three tests of its validity in this context: (1) basing policy on the best-available science, (2) engaging in good-faith public deliberation over social and economic priorities, and (3) willingness to consider alternative means to accomplish desired environmental goals. The actual behavior of environmental interest groups is not consistent with any of these tests, casting doubt on the

Zywicki then considered the conduct of the environmental groups using a public choice model, and concluded: "Political environmentalism, then, can probably be most fruitfully understood as an effort for environmentalists to secure benefits for themselves, and, through the political process, and to force others to pay for them."¹⁵⁷

III. COMMON LAW STANDARDS AND STATUTORY RULES

Much of the pressure for the adoption of statutory rules for environmental protection stems from the view that the common law, bottom up, system of enforcing individual property rights in environmental amenities is inadequate. According to Dean Huffman, "[t]he idea of free market environmentalism is particularly distressing for orthodox environmentalists, because for them it is environmentally correct to believe that markets and the wealth they produce are the source of many, if not most, environmental problems."¹⁵⁸

Terry Anderson and Donald Leal have asserted that there is nothing about environmental goals that makes them less amenable to the working of markets than other desirable amenities and goods.¹⁵⁹ Imperfections in markets do not necessarily mean that an alternative system is better.¹⁶⁰ Free market environmentalism has been extolled as substituting for "[p]opulist sentiment and pork-barrel politics" a "system of private ownership [that] would protect the environment for the same reason that it protects other kinds of property: because it encourages good stewardship."¹⁶¹

Professor James Krier has countered that free market environmentalism is about markets, and that in the context of economics, "[n]othing is free, whether a lunch or a market, so free market environmentalism is, if not a moronic idea, at least an

validity of the public interest model as a valid explanation of the behavior of environmental activist groups." *Id.* at 334-35.

¹⁵⁷ *Id.* at 349.

¹⁵⁸ James L. Huffman, *Protecting the Environment From Orthodox Environmentalism*, 15 HARV. J.L. & PUB. POL'Y 349, 349 (1992).

¹⁵⁹ See generally, TERRY L. ANDERSON & DONALD R. LEAL, *FREE MARKET ENVIRONMENTALISM* (1991).

¹⁶⁰ See Emery N. Castle, *The Market Mechanism, Externalities, and Land Economics*, 47 J. FARM ECON. 542, 552 (1965) (asserting that "[m]arket 'failure' in some abstract sense does not mean that a nonmarket [governmental] alternative will not also fail in the same or in some other abstract sense").

¹⁶¹ Richard L. Stroup & Jane S. Shaw, *The Free Market and the Environment*, PUBLIC INTEREST, Fall 1989, at 30, 31.

oxymoron."¹⁶² He claims that Anderson and Leal, and, by extension, other free market environmentalist writers, "beg the problem of coordination and forego any effort at serious comparative analysis" of the flaws and relative coordination problems of government and market actors.¹⁶³ Even if allegations of government inefficiency and furtherance of bureaucratic welfare are correct, "[w]hy will the government not fail in setting up and overseeing the new natural resource markets, just as it fails, and for the same reasons, in setting up and overseeing regulatory programs?"¹⁶⁴

However, free market environmentalists like Anderson and Leal regard the use of market mechanisms within a system of government controls as decidedly second-best,¹⁶⁵ and eschew the creation of the "regulatory property" that subsequently is traded.¹⁶⁶ Given their view that the State should be limited to enforcement of the common law of property, contract, tort, and crimes, they cannot be answerable for defects in the regulatory process.

A. *The Purported "Disintegration" of Property*

Two important elements in the supplanting of common law property rules by comprehensive environmental statutes are academic arguments that property claims are indeterminate and that "property" itself is not a useful construct.

In 1932, A.C. Pigou published his *The Economics of Welfare*, which perceived the activities of others that adversely impinged upon the reasonable enjoyment of a given owner's property as bad externalities.¹⁶⁷ While such negative externalities could be enjoined by courts in response to private or public nuisance actions, Pigou argued that they could be discouraged wholesale through offsetting ("Pigovian") taxes.

Pigou's analysis later was dethroned by Professors James Buchanan and William Stubblebine,¹⁶⁸ who found externalities only

¹⁶² Krier, *supra* note 101, at 332.

¹⁶³ *Id.* at 341.

¹⁶⁴ *Id.* at 341-42.

¹⁶⁵ ANDERSON & LEAL, *supra* note 159, at 158 (noting that Clean Air Act tradable permits "do not represent a truly free-market approach . . . the political process determines the initial or optimal pollution levels, not the polluters bargaining with those who bear the costs of the pollution.").

¹⁶⁶ See Jonathan B. Wiener, *Global Environmental Regulation: Instrument Choice in Legal Context*, 108 YALE L.J. 677, 798-800 (1999) (explicating the concept of regulatory property and distinguishing it from private property).

¹⁶⁷ See A.C. PIGOU, *THE ECONOMICS OF WELFARE*, 710-19 (4th ed. 1932).

¹⁶⁸ James M. Buchanan & William Craig Stubblebine, *Externality*, 29 *ECONOMICA* 371, 373-74 (1962) (noting that externalities are relevant only in limited cases where they will influence conduct). See also, Steven J. Eagle, *Environmental Amenities, Private Property, and*

mattered at the margin, and in a seminal 1960 article by Professor Ronald Coase, who stressed that conflicts resulted primarily not from good versus bad uses, but rather from uses of land that are legitimate but mutually incompatible.¹⁶⁹ This results in “agnosticism about causation,” whereby “whenever two activities come into conflict, it is misleading to describe one actor as ‘the cause’ of the problem.”¹⁷⁰ In a similar vein, Professor Richard Epstein has criticized Coase’s “causal nihilism”:

No matter what the particular facts in any given case, the conduct of both is in his view causally relevant because the unwanted interaction could have been avoided or prevented if *either* party to the conflict had altered his conduct. . . .

The weakness of the position is its failure to recognize that for legal purposes the question of causation can be resolved only after there is an acceptance of some initial distribution of rights.¹⁷¹

Coase’s indeterminacy was followed by Thomas Grey’s assault on “private property” as having no uniform meaning in a well-known essay, *The Disintegration of Property*.¹⁷² However, while there are borderline cases to be sure, the Anglo-American legal tradition is not bereft of an understanding of reasonable property use, nor of the meaning of “property” in almost all instances.

B. Different Views of Property and Environmental Rights

In *The Making of Environmental Law*, Professor Richard Lazarus outlined an essential difference between the views of property rights scholars and environmentalist scholars.¹⁷³ Taking as his point of comparison Professor Richard Epstein’s 1985 book *Takings*,¹⁷⁴ Lazarus observed:

Public Policy, 44 NAT. RESOURCES J. 425 (2004) (discussing externalities in environmental context).

¹⁶⁹ See Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

¹⁷⁰ Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law And Economics?*, 111 YALE L.J. 357, 391 (2001).

¹⁷¹ Richard A. Epstein, *Nuisance Law: Corrective Justice and Its Utilitarian Constraints*, 8 J. LEGAL STUD. 49, 58 (1979) (emphasis in original).

¹⁷² Thomas C. Grey, *The Disintegration of Property*, in PROPERTY 69 (J. Roland Pennock & John W. Chapman eds., NOMOS monograph no. 22, 1980).

¹⁷³ LAZARUS, *supra* note 21, at 121.

¹⁷⁴ RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* (1985).

Epstein argued that virtually any government regulation (short of a mere codification of a traditional common law nuisance) that diminishes property value amounts to a taking of private property for public use, that, under the Fifth Amendment, requires the government's payment of "just compensation." The essential premise of much environmental law, is, in contrast to Epstein's theory, that the physical characteristics of the ecosystem generate spatial and temporal spillovers that require restrictions on the private use of natural resources far beyond those contemplated by centuries-old common law tort rules. In short, what Epstein merely acknowledges is an incidental limit on the exercise of private property rights in natural resources—the possibility of physical spillover effects—modern environmentalism perceives as a dominant characteristic justifying comprehensive governmental regulation.

This characterization of the property rights position should be supplemented in two respects. First, Epstein assigns an entire chapter in his book to "implicit in-kind compensation."¹⁷⁵ Employing what Justice Homes referred to as "reciprocity of advantage,"¹⁷⁶ Epstein notes that "the constitutional command for just compensation may be fully satisfied by the operation of the statute itself. Each person whose property is taken by the regulation receives implicit benefits from the parallel takings imposed upon others."¹⁷⁷

The other supplement is more subtle and perhaps more important. Epstein does not advocate "centuries old" common law nuisance because of distain of environmental harms other than discrete, physical ones. Rather, he asserts that the "robustness" of the common law baselines is based on its utility over a wide range of cases.¹⁷⁸ It is only by assigning ownership to possessors of land, and not to those who assert that they benefit that land by not using their own to create environmental harm upon it, that our system of ownership and transferability is workable.¹⁷⁹ The assertion of property rights in lands upon which one has plausible claim to have conferred environmental spillover benefits would create a situation reminiscent of Michael

¹⁷⁵ *Id.* at 195–215.

¹⁷⁶ See *Penn. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1921).

¹⁷⁷ EPSTEIN, *supra* note 174, at 196.

¹⁷⁸ See Richard A. Epstein, *The Ubiquity of the Benefit Principle*, 67 S. Cal. L. Rev. 1369, 1376 (1994).

¹⁷⁹ *Id.* at 1380 (citing Donald Wittman, *Liability for Harm or Restitution for Benefit?*, 13 J. LEGAL STUD. 57 (1984)).

Heller's "anticommons," in which ownership is so fractionalized that it could not be transferred or even usefully employed.¹⁸⁰

Of course, the "comprehensive" government regulation advocated by Lazarus would not really fractionalize interests in land. Rather, it largely would coalesce use rights in government (although command and control mechanisms may incorporate market mechanisms). One could view Lazarus's approach as the mirror image of his conception of Epstein's view, now with property rights "incidental" to government ecosystem management and the "centrality" of federal control.¹⁸¹

In any event, there is little question about the ability of government to exercise dominion over land for the purpose of achieving its preferred outcomes regardless of the existence, or absence, of common law nuisance. The issue is a distributional one—whether the affected landowner or the public as a whole bears the cost.¹⁸²

C. Common Law Remedies for Environmental Wrongs

A discussion of common law remedies for environmental harms must begin without the preconception that private land ownership is the cause of environmental problems.¹⁸³ That said, there are several general objections to the protection of environmental rights through the common law.

One is that the costs of protecting individual environmental rights through common law mechanisms are prohibitive in our complex society, so that prophylactic statutes and sweeping presumptions must be employed.¹⁸⁴ Another is that what we now understand as the "economy of nature" is ill-served by treating land as discrete parcels embodying their owners' development claims.¹⁸⁵ A final reason is that

¹⁸⁰ See Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621 (1998).

¹⁸¹ Daniel B. Rodriguez, *The Role of Legal Innovation in Ecosystem Management: Perspectives from American Local Government Law*, 24 ECOLOGY L.Q. 745, 749 (1997). "The shared view among the founders of the emerging ecosystem management movement is that federal energy is essential to translate the principles of biodiversity protection into nationwide public policy." *Id.*

¹⁸² See *supra* Part II.D.

¹⁸³ See James L. Huffman, *Land Ownership and Environmental Regulation*, 25 ECOLOGY L.Q. 591, 592 (1999) (referring to this assumption as the "orthodox view").

¹⁸⁴ See *supra* Part III.B.

¹⁸⁵ Joseph L. Sax, *Property Rights and the Economy of Nature: Understanding Lucas v. South Carolina Coastal Council*, 45 STAN. L. REV. 1433, 1442 (1993) (discussing the two "fundamentally different views of property rights," the "transformative economy," where individuals reshape discrete parcels for economic use, and the "economy of nature," where "an ecological perspective views land as consisting of systems defined by their function, not by man-made boundaries.").

environmental rights inure to the benefit of all constituent elements of the ecosystem that that these rights hardly are apt to be established and protected in litigation centered in claims of individual members of the dominant species.¹⁸⁶ However, those subscribing to this view should not expect much relief from the legislature, either.¹⁸⁷

The utility of the common law lies in its basic adherence to settled expectations about rights. Such expectations "are the foundation of effective cooperation in any large, complex society."¹⁸⁸ Anderson and Leal assert that

[a]t the heart of free market environmentalism is a system of well-specified property rights to natural resources. Whether these rights are held by individuals, corporations, non-profit environmental groups, or communal groups, a discipline is imposed on resource users because the wealth of the owner of the property right is at stake if bad decisions are made.¹⁸⁹

The notion of free market land stewardship is rejected by others. According to Professor James Karp:

Stewardship must be a shared community ethic to be successful. Some individuals left unguided, however, are apt to favor short-term, selfish interests. As religion and custom fade deeper into the cultural background, the civil religion of law must be used as arbiter of correct behavior. The scope of the duty of stewardship must be defined with sensitivity to the legitimate needs of protecting private property rights.¹⁹⁰

However, even owners who contemplate that their involvement with the resource will be short-lived have a strong incentive to conserve it, since their stewardship of the resource largely determines the price at which they could sell.¹⁹¹ Anderson and Leal also argue that natural resource economics has "approached resource policy as though there is a 'socially efficient' allocation of resources that will be reached when scientific managers understand the relevant trade-offs and act to achieve the most efficient solution."¹⁹² In this context,

¹⁸⁶ See *supra* Part I.B.

¹⁸⁷ See *supra* note 52 and accompanying text.

¹⁸⁸ PAUL HEYNE, *THE ECONOMIC WAY OF THINKING* 366 (7th ed. 1994).

¹⁸⁹ ANDERSON & LEAL, *supra* note 159, at 3.

¹⁹⁰ James P. Karp, *A Private Property Duty of Stewardship: Changing Our Land Ethic*, 23 ENVTL. L. 735, 755 (1993).

¹⁹¹ See ANDERSON & LEAL, *supra* note 159, at 3 (noting that owners of transferable resources must consider).

¹⁹² Terry L. Anderson and Donald R. Leal, *Free Market Environmentalism: Hindsight and*

Professor Karp's reference to the "civil religion of law" is reminiscent of Professor Dan Tarlock's observation that we tend "to respond to the contingencies and uncertainties inherent in environmental science by reclassifying problems as ethical rather than scientific."¹⁹³

While it is tempting to affirm our commitment to the environment with extensive legislation, common law nuisance continues to have application to environmental problems, even those on the largest scale. In September 2006, the attorney general of California brought a lawsuit based on global warming against major auto manufacturers in federal district court. The action was based on federal and state common law.

The complaint alleged that under federal and state common law the automakers have created a public nuisance by producing "millions of vehicles that collectively emit massive quantities of carbon dioxide," a greenhouse gas that traps atmospheric heat and causes global warming. Under the law, a "public nuisance" is an unreasonable interference with a public right, or an action that interferes with or causes harm to life, health or property. The complaint asks the court to hold the defendants liable for damages, including future harm, caused by their ongoing, substantial contribution to the public nuisance of global warming.¹⁹⁴

The California action is parallel to the global warming challenge brought under the Clean Air Act¹⁹⁵ in *Massachusetts v. Environmental Protection Agency*,¹⁹⁶ in which the United States Supreme Court held that the EPA was authorized by the Clean Air Act to regulate greenhouse gas emissions from new motor vehicles, should it form a "judgment" that such emissions contribute to climate change. The agency's discretion to avoid taking regulatory action was limited to situations where it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do. Consequent to the Supreme Court's action, the U.S. district court permitted the broad-ranging California case to proceed.¹⁹⁷

Foresight, 8 CORNELL J.L. & PUB. POL'Y 111, 112 (1998).

¹⁹³ Tarlock, *supra* note 72. See generally *supra* Introduction.

¹⁹⁴ Press release, Calif. Dept. of Justice, Office of the Atty. General, "Attorney General Lockyer Files Lawsuit Against "Big Six" Automakers for Global Warming Damages in California," (September 20, 2006) available at <http://ag.ca.gov/newsalerts/release.php?id=1338&year=2006&month=9&PHPSESSID=5a6cc0dd80e172b73e0742a24e8d9a1a>.

¹⁹⁵ 42 U.S.C.A. § 7521(a)(1) (2004).

¹⁹⁶ 127 S.Ct. 1438 (2007).

¹⁹⁷ Order on Motions and Counter-Motions for Summary Judgment on Plaintiffs' Claims

In addition to raising important constitutional issues, cases like *Massachusetts v. EPA*, in which courts are asked to set fundamental national policies or to force administrative agencies to do so, are troubling from environmental and common law perspectives. Lawsuits to force administrative agencies to limit carbon dioxide (CO₂) emissions seem like an example of the skipping to policy instruments without debate about fundamentals that Professor Dan Tarlock cautioned against.¹⁹⁸ From a common law perspective, on the other hand, such litigation presupposes aggregate rights that go far beyond rectification of harm to the property rights of some by others in their bilateral relationship.¹⁹⁹

A good example of the problem of going beyond the bilateral relationship is *Connecticut v. American Electric Power Co.*,²⁰⁰ where a federal district court recently found a claim to abate “the public nuisance of global warming” nonjusticiable, since it required “an initial policy determination of a kind clearly for nonjudicial discretion.”²⁰¹ That court found that the claims regarding global warming were unique in the context of “pollution-as-public-nuisance cases” as they “touched on so many areas of national and international policy.”²⁰²

On the other hand, in *In re Methyl Tertiary Butyl Ether (MTBE) Products Liability Litigation*, the same court found that a case involving the claim by many municipalities that a gasoline additive contaminated their ground water was not precluded by the political question doctrine.²⁰³ The court distinguished *American Electric Power* based on the determination “that the claims regarding global warming were unique in the context of ‘pollution-as-public-nuisance cases’ as they ‘touched on so many areas of national and international policy.’”²⁰⁴ While in *American Electric Power* the plaintiffs had sought “to enact broad limits” on CO₂ emissions and the political branches “had issued explicit statements ‘on the issue of global climate change in general,’” they “specifically refused” to limit CO₂ emissions, took steps to “study and research” global warming issues,

for Relief on EPCA Preemption and Foreign Policy Preemption, CV F 04-6663 AWI LJO, December 11, 2007, available at http://ag.ca.gov/cms_attachments/press/pdfs/n1509_656_order_12-12-07.pdf.

¹⁹⁸ See Tarlock, *supra* note 57.

¹⁹⁹ See generally, WEINRIB, *supra* note 2.

²⁰⁰ 406 F.Supp.2d 265 (S.D.N.Y. 2005).

²⁰¹ *Id.* at 272.

²⁰² *Id.*

²⁰³ 438 F.Supp.2d 291 (S.D.N.Y. 2006).

²⁰⁴ *Id.* at 298 (quoting *American Electric Power*, 406 F.Supp.2d at 272).

and “directed the Secretary of State to ‘coordinate U.S. negotiations concerning global climate change.’”²⁰⁵ Also, “while plaintiffs in the global warming case sought quasi legislative remedies,” including an agreement to cap emissions and reduce them annually, the plaintiffs here “simply request that defendants be prevented from ‘engaging in further releases of MTBE.’”²⁰⁶

In more routine cases, common law public nuisance has served as a satisfactory basis for environmental remediation. According to the *Restatement (Second) of Torts*, “[a] public nuisance is an unreasonable interference with a right common to the general public.”²⁰⁷

In its inception a public, or common, nuisance was an infringement of the rights of the Crown. . . . By the time of Edward III [1312–77] the principle had been extended to the invasion of the rights of the public, represented by the Crown, by such things as interference with the operation of a public market or smoke from a lime-pit that inconvenienced a whole town.²⁰⁸

Public nuisances included interference with the public health, safety, morals, peace and comfort, and convenience.²⁰⁹ It is applicable cases of “widely disseminated bad odors, dust and smoke,” obstruction of highways or navigable stream, and similar situations.²¹⁰ There is a large body of caselaw involving environmental public nuisances, such as those involving odors,²¹¹ dust,²¹² emissions,²¹³ and water pollution.²¹⁴

While the enactment of federal and state environmental legislation since the 1970s might have been expected to reduce the amount of common law public nuisance litigation, “public nuisance actions have continued to play an important role in the area of environmental protection.”²¹⁵ The number of environmental nuisance cases filed in

²⁰⁵ *Id.* at 301.

²⁰⁶ *Id.* (emphasis in original).

²⁰⁷ RESTATEMENT (SECOND) OF TORTS § 821B(1) (1977).

²⁰⁸ *Id.* at cmt. a.

²⁰⁹ *Id.* at cmt. b.

²¹⁰ *Id.*

²¹¹ *See, e.g.*, *Transcontinental Gas Pipe Line Corp. v. Gault*, 198 F.2d 196 (4th Cir. 1952); *Fort Smith v. Western Hide & Fur Co.*, 239 S.W. 724 (Ark. 1922).

²¹² *See, e.g.*, *Karpisek v. Cather & Sons Constr. Inc.*, 117 N.W.2d 322 (Neb. 1962.)

²¹³ *See, e.g.*, *Pollock v. Georgia Power Co.*, 234 S.E.2d 107 (Ga. App. 1977).

²¹⁴ *See, e.g.*, *State Dep’t of Env’tl. Prot. v. Exxon Corp.*, 376 A.2d 1339 (N.J. Super. Ct. 1977).

²¹⁵ Karol Boudreaux and Bruce Yandle, *Public Bads and Public Nuisance: Common Law Remedies for Environmental Decline*, 14 FORDHAM ENVTL. L.J. 55, 63 (2002).

state court has risen from 50 during the 1960s to 184 during the 1990s, and the number of federal cases during the same period have risen from 7 to 178.²¹⁶

One important attribute of public nuisance actions, as opposed to private nuisance, is that collective action and free riding problems are attenuated.²¹⁷ The rights of residents of a town, or state, who are deprived of enjoyment of their lands and similar rights do not have to pass the hat to raise money to vindicate their rights. Their town solicitor or state attorney general may act for them.

D. Rules vs. Standards

The efficacy of common law remedies for nuisance is demonstrated by the fact that statutory enactments are not generally demonstrable as superior, or even equally satisfactory. Common law decisionmaking consists of *ex post* inquiry into whether given conduct conformed with relevant community standards. It therefore is case specific. It is juxtaposed statutory decisionmaking, which consists of *ex ante* general determinations that individuals are obligated to obey specific rules in the future.

Professor Cass Sunstein has noted that “enthusiasm for genuinely case-specific decisions makes no sense” because “[f]ew, if any judgments about particular cases are entirely particular,” and “[a]lmost any judgment depends on the use of principles or reasons.”²¹⁸ On the other hand, however, enthusiasm for rules often “seems senseless too,” given the lack of relevant information or need for subtle judgments.²¹⁹ Professor Louis Kaplow has suggested that rules are more expensive to promulgate and standards more expensive to apply, that rules should be employed in cases where many activities might be expected to follow the same general pattern.²²⁰ He also states that standards may be favored where it is not plausible to formulate legal commands as rules, giving as an illustration when we are “unable to specify in advance proper disposal techniques for all hazardous substances because we cannot foresee all potential

²¹⁶ *Id.* at 64.

²¹⁷ See MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION 2* (1965) (noting that “unless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in their common interest, *rational, self-interested individuals will not act to achieve their common or group interests.*”) (emphasis in original).

²¹⁸ Cass R. Sunstein, *Problems With Rules*, 83 CAL. L. REV. 953, 957 (1995).

²¹⁹ *Id.*

²²⁰ Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 563 (1992).

hazards—whereas some hazards, and how best to address them, may become apparent when they arise.”²²¹

E. The Interplay Between Common Law Nuisance and Regulatory Takings

As was noted earlier,²²² since the 1970s environmental protection has been perceived largely as a matter of statutory law, with corresponding attenuation in the importance of common law nuisance. However, as Justice Holmes famously noted, statutes that limit property rights may go “too far.”²²³ He warned that “a strong public desire to improve the public condition is not enough to warrant achieving the de-sire by a shorter cut than the constitutional way of paying for the change.”²²⁴ To be sure, the Supreme Court generally has upheld the application of environ-mental legislation against regulatory takings challenges.²²⁵ However, occasionally the Court has found that environmental regulators interpret their powers too broadly,²²⁶ or that restrictions imposed for environmental purposes may constitute regulatory takings.²²⁷ In *Lucas v. South Carolina Coastal Council*,²²⁸ the Court held that a beachfront regulation depriving a landowner of all economically beneficial use was a compensable taking, since government could not impose such a severe limitation unless it merely reflected “the restrictions that background principles of the State’s law of property and nuisance already place upon land ownership.”²²⁹

This “background principles” language in *Lucas* may turn out to offer strong support to environmental regulation, with localities successfully defending takings challenges on the grounds that owners did not possess the asserted rights under such background

²²¹ *Id.* at 599–600.

²²² *See supra* notes 8–13 and associated text.

²²³ *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

²²⁴ *Id.* at 416.

²²⁵ *See, e.g., United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985) (noting in dicta that Clean Water Act to wetlands adjacent to navigable waters); *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Reg’l Plan. Agency*, 535 U.S. 302 (2002) (upholding 32-month moratorium on development for environmental planning).

²²⁶ *E.g., Solid Waste Agency of Northern Cook County v. US Army Corps of Engineers*, 531 U.S. 159 (2001) (holding that Corps’ rule extending definition of “navigable waters” under the Clean Water Act to include intrastate waters used as habitat by migratory birds exceeded its authority under that statute).

²²⁷ *See City of Monterey v. Del Monte Dunes at Monterey, Ltd.*, 526 U.S. 687 (1999) (upholding takings award for denial of development permit based in part on protection of endangered species.)

²²⁸ *See* 505 U.S. 1003 (1992).

²²⁹ *Id.* at 1029.

principles.²³⁰ Indeed, the language in Lucas noting that “changed circumstances” might remove the inference of lack of common law prohibition²³¹ might be the basis for a “new nuisance” jurisprudence asserting a reevaluation of common law nuisance and property rights respecting the environment.²³²

CONCLUSION

The genius of the common law is the fact that it combines the protection of expectations with the possibility of incremental change. There is opportunity for courts, in cooperation with the parties, to fashion settlements that improve upon the outcomes for property and the environment that is apt to be achieved under top down statutory regulation. Given the state of scientific uncertainty and the tendency to apply rules before articulating policy, no decision maker can impose command and control outcomes with confidence.

By focusing on the immediate bilateral dispute before it, a common law court may provide a contribution to the accretion of wisdom that permits a healthy evolution of our understanding of, and protection for, both property and the environment.

²³⁰ See Michael C. Blumm & Lucas Ritchie, *Lucas's Unlikely Legacy: The Rise of Background Principles as Categorical Takings Defenses*, 29 HARV. ENVTL. L. REV. 321 (2005) (discussing cases subsequent to *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992)).

²³¹ *Lucas*, 505 U.S. at 1031 (“The fact that a particular use has long been engaged in by similarly situated owners ordinarily imports a lack of any common-law prohibition (though changed circumstances or new knowledge may make what was previously permissible no longer so,”) (lack of closure of parenthetical in original).

²³² See generally Christine A. Klein, *New Nuisance: An Antidote to Wetland Loss, Sprawl, and Global Warming*, 48 B.C. L. REV. 1155 (2007).