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A PROSPECTIVE LOOK AT PROPERTY RIGHTS AND ENVIRONMENTAL REGULATION

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INTRODUCTION

This Article considers the future interaction of environmental regulation and private property rights, with an emphasis on climate change issues. It concludes that environmental issues not satisfactorily resolved at the federal level will lead to more state and local regulation that impinges on traditional understandings of property. Given the uncertainty associated with detrimental environmental outcomes, and the trend towards more proactive sub-national land use controls, more micromanagement of property will result.

Scholars approach the future of environmental and natural resource law from many perspectives. This Article is premised on the fact that recognition of the importance of property rights is too important to exclude from the dialogue.¹

One principal issue is the appropriate level of responsibility for decision making on issues with environmental ramifications. Options range from the individual and corporation, through local and state government, to nation states and transnational organizations.

Some environmental problems, notably climate change, have worldwide implications. The subsidiarity principle suggests that national or worldwide solutions are best for problems of global import.² The most clear-cut, transparent, and economically efficient way for individual nations to respond to climate change is through carbon taxes, or perhaps through cap and trade, their more inefficient but politically more tenable cousin.³ Since comprehensive solutions seem unlikely in the short- to medium-term, however, increased local or mixed-level regulation is likely to result.

Increased state and local efforts to deal with serious environmental and natural resource problems will clash with private property rights. Some actors opportunistically will seize upon ostensible climate and environmental concerns to advocate for regulation that would advance other civic and private agendas.⁴

In any article that looks toward the future, trepidation is in order. Prognosticating on the environment and the effects of regulation on property rights necessarily involves assumptions about science, human nature, politics, and law. Predictions have a tendency towards “more of the same,” but extrapolations of existing trends typically are not correct. It also is easy to focus on one type of anticipated problem to the exclusion of others. In the field of environmental and natural resource regulation, for example, how will measures intended to reduce greenhouse gas (“GHG”) emissions affect endangered species or human health? How will environmental interventions in this generation affect individuals in the distant future, given the likely enhanced capability of intervening generations to reach solutions that might, in retrospect, have been better? More germane to this Article, how will changes in current understanding and the law of

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¹ This article is part of a symposium on “A Prospective Look at Property Rights,” presented in conjunction with a similar symposium on “40 Years of Environmental and Natural Resources Law—A Prospective Look.” The symposia first were presented at the annual meeting of the Association of American Law Schools on January 7, 2013.

² See *infra* Part I.B. for discussion.

³ See, e.g., Roberta F. Mann, *The Case for the Carbon Tax: How to Overcome Politics and Find Our Green Destiny*, 39 ENVTL. L. REP. NEWS & ANALYSIS 10118 (2009); Gilbert E. Metcalf & David Weisbach, *The Design of a Carbon Tax*, 33 HARV. ENVTL. L. REV. 499 (2009). See also *infra* Part I.C.3. for discussion.

⁴ See *infra* Part 0 I.D.3. for discussion.

property rights be affected by environmental considerations, and how might that influence private property and individual autonomy more generally?⁵

This Article proceeds in three Parts. Part I examines the difficulty in reaching a definition of environment and property rights that properly weighs current concerns against those of future generations. It explores climate change as the paradigmatic example. Part II focuses on the importance of private property in future environmental regulation. It examines the lack of standards protecting individuals from regulatory takings, and negative impacts for consumers. Part III considers the problematic implementation of “smart growth” regulations, the use of development exactions, and the potential for rent seeking and abuse in the redevelopment context.

I. THE ENVIRONMENT, PROPERTY, AND THE FUTURE

This Part examines inter-generational issues that keenly affect environmental policy, the appropriate level of decision making authority using the principle of subsidiarity as a guide, and the effects of “legal centralism” on the implementation of environmental regulation. It then turns to the paradigmatic example of climate change to explore these concepts in concrete application.

A. *The Environment and Inter-Generational Justice*

Environmental policy involves both the relationship of people to nature and the relation of this human generation to other generations.⁶ “Intergenerational equity calls for equality among generations in the sense that each generation is entitled to inherit a robust planet that on balance is at least as good as that of previous generations.”⁷ As Edmund Burke observed, one might consider the inter-generational human community as “a partnership not only between those who are living but between those who are living, those who are dead, and those who are to be born.”⁸ Given that even a low economic discount rate makes preserving a life hundreds of years from now worth a pittance today, perhaps “discounting cannot substitute for a moral theory setting forth our obligations to future generations.”⁹

Nevertheless, while one might assume most people agree what we have at least some general responsibility to provide for the welfare of future generations,¹⁰ the case for acting upon inter-generational welfare is more difficult than might initially appear. Our daily decisions affect who will be born in the next generation, and hence who will live in all future generations. Path dependence means that tomorrow’s science builds upon today’s, and that mankind’s interactions with the Earth might lead to virtuous as well as vicious feedback loops. Thinking about our moral responsibility for the indefinite future is quite different from considering the harms that we might do our fellow humans, other creatures, and the environment today.¹¹

It might well be that our balancing of property rights against environmental regulation will occur during a century in which the standard of living of Americans is increasing painfully slowly.¹² If this is

⁵ In an analogous situation, Professor Douglas Kysar has suggested that dealing with climate change in the context of environmental torts might change judicial thought about epistemic responsibility in many contexts. See Douglas A. Kysar, *What Climate Change Can Do About Tort Law*, 42 ENVTL. L. REP. NEWS & ANALYSIS 10739 (2012).

⁶ See generally, EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY AND INTERGENERATIONAL EQUITY (1989).

⁷ Edith Brown Weiss, *Our Rights and Obligations to Future Generations for the Environment*, 84 AM. J. INTL. L. 198, 200 (1990).

⁸ Weiss, *supra* note 7 at 207 (quoting Edmund Burke, *Reflections on the Revolution in France* 139-40 (1790), in 2 WORKS OF EDMUND BURKE 368 (London 1854)).

⁹ Richard L. Revesz & Matthew R. Shahabian, *Climate Change and Future Generations*, 84 S. CAL. L. REV. 1097, 1097 (2011) (noting that, “at a discount rate of three percent, ten million dollars five hundred years from now is worth thirty-eight cents today”).

¹⁰ See Daniel A. Farber Paul A. Hemmersbaugh, *The Shadow of the Future: Discount Rates, Later Generations, and the Environment*, 46 VAND. L. REV. 267, 291 (1993).

¹¹ See Neil H. Buchanan, *What Kind of Environment Do We Owe Future Generations*, 15 LEWIS & CLARK L. REV. 339, 344-46 (2011).

¹² See generally, Robert J. Gordon, *Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds*, National Bureau of Economic Research Working Paper 18315 (2012) (available at <http://www.nber.org/papers/w18315>). Professor Gordon posits that rapid growth during the past 250 years has resulted from three industrial revolutions, the first creating steam power and railroads from 1750 to 1830, the

the case, the provision of environmental amenities and preservation of natural resources will have to be financed primarily through a reduction in other goods and services, as opposed to being part of a growth dividend. The difficulty in raising taxes in ways that are obvious, such as through explicit carbon taxes, will be exacerbated.¹³ Measures that are indirect therefore are more likely, including development prohibitions and exactions.¹⁴

It is important to keep in mind that there is no intrinsic definition of the “environment.” The roots of “environs,” meaning “vicinity,” go back hundreds of years, while the modern senses of “environment” and “environmentalism” are fairly new constructs.¹⁵ While “the environment” could pertain to any aspect of the natural world, the regulatory framework mostly pertains to mankind’s own benefit. “Broadly stated, environmental law regulates human activity in order to limit ecological impacts that threaten public health and biodiversity.”¹⁶

B. *Environment and Property Through the Lens of Subsidiarity*

1. General Considerations

The concept of subsidiarity refers to power being exercised at the lowest appropriate level.¹⁷ Where conflicts pertaining to resource use are localized within a single parcel, the owner internalizes the costs and benefits, and is in the best position to make decisions. Where environmental problems exist on the local level, community answers are best. But, some problems are regional or national, and others are global, most notably, climate change.

Since the emission of GHGs anywhere contributes to climate change everywhere, those emissions represent the epitome of externalized costs. Thus, climate change is “the mother of all collective action problems.”¹⁸ Attempts to solve this international problem at the local or state level create the problem of “jurisdictional mismatch.”¹⁹ Likewise, when dealing with somewhat localized problems that, however, are not confined to municipal borders, some commentators have found state preemption laws to constitute an important barrier to local efforts.²⁰ One response is to seek “diagonal,” or other mixed solutions, with regulatory interplay among various levels of government.²¹

An essential question in this inquiry is how to prevent the abuse of property rights where “the basic concepts of territoriality that underlie much of our federalism jurisprudence are being slowly washed away.”²²

2. The Example of Hydraulic Fracturing

An example of a recent and important environmental problem where federal, state, and local interests are not effectively delineated is hydraulic fracturing, commonly known as “fracking.”²³ This

second resulting from electricity, internal combustion engines, running water and indoor toilets, and communications from 1870 to 1900, and the third resulting in computers, the web, and mobile phones from 1996 to 2004. We also face “headwinds,” in the form of “demography, education, inequality, globalization, energy/environment, and the overhang of consumer and government debt.” *Id.* at 1. He concludes that “A provocative “exercise in subtraction” suggests that future growth in consumption per capita for the bottom 99 percent of the income distribution could fall below 0.5 percent per year for an extended period of decades.” *Id.*

¹³ See *infra* Part I.C.3. for discussion.

¹⁴ See *infra* Part III.A. for discussion.

¹⁵ See, e.g., Steven J. Eagle, *The Common Law and the Environment*, 58 CASE W. L. REV. 583, 587-88 (2008).

¹⁶ RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 1 (2004).

¹⁷ See, e.g., Aurélian Portuese, *The Principle of Subsidiarity as a Principle of Economic Efficiency*, 17 COLUM. J. EUR. L. 231 (2011).

¹⁸ Sarah Krakoff, *Fragmentation, Morality, and the Law of Global Warming*, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=976049.

¹⁹ William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps*, 89 IOWA L. REV. 1, 23 (2003).

²⁰ See, e.g., Jonathan Rosenbloom, *New Day at the Pool: State Preemption, Common Pool Resources, and Non-Place Based Municipal Collaborations*, 36 HARV. ENVTL. L. REV. 445 (2012).

²¹ See, e.g., Hari M. Osofsky, *Diagonal Federalism and Climate Change Implications for the Obama Administration*, 62 ALA. L. REV. 237 (2011); Ashira Pelman Ostrow, *Land Law Federalism*, 61 EMORY L.J. 1397 (2012) (advocating a “local-official-as-federal-agent model”).

²² Daniel A. Farber, *Climate Change, Federalism, and the Constitution*, 50 ARIZ. L. REV. 879, 882 (2008).

process uses extremely large amounts of water, mixed with a “proppant,” to crack open underground shale layers, so that embedded natural gas can be extracted.²⁴ While fracking promises to provide America with vast amounts of clean burning fuel, the “flowback” of fracking fluids from underground may result in groundwater contamination.²⁵ At present, there are no federal statutes or regulations specifically providing for management of wastewater from fracking operations.²⁶

Specific environmental concerns regarding fracking, in addition to clean water hazards, include “[d]rilling facilities and their operations threaten wildlife by fragmenting habitat, destroying public lands, and introducing invasive species. . . . Drilling operations may also compromise national ambient air quality standards for nitrogen dioxide and particulate matter.”²⁷ Furthermore, boomtown conditions greatly magnify social problems in areas with new and extensive concentrations of fracking, such as the immense Bakken field in Western North Dakota and also in Eastern Montana.²⁸ The nature of fracking will result in wells that are depleted quickly, so that new drilling constantly is required.²⁹ Nevertheless, “North Dakota stands out among its peers for providing the least direct funding for oil-impacted communities.”³⁰

In various states, local versus state control of fracking is being considered in legislatures and courts. For example, the Pennsylvania Legislature’s response, known as “Act 13,” was signed into law in February 2012.³¹ Act 13 “preempts local ordinances that regulate gas well operations,³² and further provides that local land use ordinances ‘shall allow for the reasonable development’ of the Marcellus Shale.”³³ These provisions make clear that Pennsylvania’s municipalities may not regulate the environmental aspects of shale drilling operations,³⁴ and must permit gas extraction operations within their borders.³⁵

In *Robinson Township v. Commonwealth*,³⁶ the Pennsylvania Commonwealth Court held that Act 13 did not provide sufficient guidance to the Department of Environmental Protection on when setback waivers might be granted, and thus violated the nondelegation doctrine.³⁷ More germane to the present discussion, the court split on the issue of preemption. The president judge’s opinion of the court stated that the statute “violates substantive due process because it does not protect the interests of neighboring property owners from harm, alters the character of neighborhoods and makes irrational classifications.”³⁸ It added: “Succinctly, [Act 13] is a requirement that zoning ordinances be amended in violation of the basic precept that ‘Land-use restrictions designate districts in which only compatible uses are allowed and incompatible uses are excluded.’”³⁹

²³ See, e.g., John M. Smith, *The Prodigal Son Returns: Oil and Gas Drillers Return to Pennsylvania With a Vengeance Are Municipalities Prepared?*, 49 DUQ. L. REV. 1, 6 (2011) (noting that the “hydraulic fracturing process” is “commonly referred to as “fracking”).

²⁴ Nancy D. Perkins, *The Fracturing of Place: The Regulation of Marcellus Shale Development and the Subordination of Local Experience*, 23 FORDHAM ENVTL. L. REV. 44, 48 (2012).

²⁵ Perkins, *supra* note 24, at 49.

²⁶ Nicole R. Snyder Bagnell, *Environmental Regulation Impacting Marcellus Shale Development*, 19 PENN ST. ENVTL. L. REV. 177, 182 (2011)

²⁷ Perkins, *supra* note 24, at 50 (citations omitted).

²⁸ See, e.g., *Forum Editorial: A mixed bag in Oil Patch*, BAKKEN TODAY, June 25, 2012 (available at http://www.bakcentoday.com/event/article/id/365362/publisher_ID/1/). “On one side are the obvious benefits of the oil boom: a flood of revenue, oil company philanthropy, good jobs and the myriad of economic development plusses associated with oil development. On the other side are social problems and dislocations never before seen in western North Dakota: organized crime, housing shortages, escalating rent, evictions, deteriorating roads, price inflation and a general sense of cultural loss and environmental degradation.” *Id.*

²⁹ Headwaters Economics, *Benefiting from Unconventional Oil: State Fiscal Policy is Unprepared for the Heightened Community Impacts of Unconventional Oil Plays 2*, THE BILL LANE CENTER FOR THE AMERICAN WEST, STANFORD UNIVERSITY (April 2012) (available at <http://www.stanford.edu/group/ruralwest/cgi-bin/projects/headwaters/Bakken-Energy-Report-Headwaters-BLC-120424.pdf>).

³⁰ Headwaters Economics, *supra* note 29.

³¹ Perkins, *supra* note 24, at 46 (citations omitted) (citing Bill Information: Regular Session 2011-2012, House Bill 1950, Pennsylvania General Assembly, http://www.legis.state.pa.us/cfdocs/billinfo/bill_history.cfm?year=2011&sind=0&body=H&type=B&bn=1950).

³² Perkins, *supra* note 24, at 46 (citing H.B. 1950 § 3302).

³³ Perkins, *supra* note 24, at 46 (citing H.B. 1950 § 3304).

³⁴ Perkins, *supra* note 24, at 46 (citing H.B. 1950 § 3303).

³⁵ Perkins, *supra* note 24, at 46 (citing H.B. 1950 § 3304(b)).

³⁶ ___ A.3d ___, 2012 WL 3030277 (Pa. Commw. Ct. July 26, 2012).

³⁷ *Id.*, ___ A.3d at ___, 2012 WL 3030277 *22.

³⁸ *Id.*, ___ A.3d at ___, 2012 WL 3030277 *15.

³⁹ *Id.*, ___ A.3d at ___, 2012 WL 3030277 *15 (citing 58 PA. C.S. § 3304 and quoting *City of Edmonds v. Oxford House, Inc.*, 514 U.S. 725, 732 (1995)).

The dissent stated that “natural resources of this Commonwealth exist where they are, without regard to any municipality’s comprehensive plan,” that they “just as easily” might exist in a residential as in an industrial district, and that Act 13 recognized the interest of Pennsylvanians to “ensure the optimal and uniform development of oil and gas resources . . . *wherever those resources are found*.”⁴⁰

The Pennsylvania Supreme Court heard oral argument on October 17, 2012.⁴¹

A similar conflict between state and local control of fracking is occurring in New York. Several towns have banned fracking directly, revised their land use law to preclude it, or are considering similar ordinances.⁴² One energy company has sued in county court, claiming that state law preempted local laws regulating gas exploration and development, including zoning law.⁴³ The trial court found that the Town of Middlefield’s amended zoning ordinance, prohibiting “[h]eavy industry and all oil, gas or solution mining and drilling,” was not preempted by the state’s Environmental Conservation Law.⁴⁴ The court characterized the zoning ordinance as “an exercise of the municipality’s constitutional and statutory authority to enact land use regulations even if such may have an incidental impact upon the oil, gas and solution drilling or mining industry.”⁴⁵ Harmonizing the state statute and local ordinance, the court declared: “The state maintains control over the ‘how’ of such [oil and gas drilling] procedures while the municipalities maintain control over the ‘where’ of such exploration.”⁴⁶ Finally, the trial court noted that a 2011 decision of the New York Court of Appeals made clear that a locality might ban mining in furtherance of its land use authority.⁴⁷

C. *Legal Centralism and Its Effects*

1. The Concept of “Legal Centralism”

“Legal centralism,” a term coined by John Griffiths,⁴⁸ refers to the primacy of law in shaping human behavior. It is “[t]he view that the justice to which we seek access is a product that is produced—or at least distributed—exclusively by the state.”⁴⁹ Legal centralism “refers to the Hobbesian notion of the centrality of the state and its imposed, formal constraints (such as law) in the maintenance of order.”⁵⁰

In distinguishing the term from “legal pluralism,” Griffiths later wrote that under legal centralism “law is and should be the law of the state, uniform for all persons, exclusive of all other law, and administered by a single set of state institutions.”⁵¹ Religious, family, and civic norms should be “hierarchically subordinate.”⁵²

While people “bargain in the shadow of the law,”⁵³ Professor David Fagundes recounts the seminal work of Professors Robert Ellickson and Elinor Ostrom as “strik[ing] at the heart of legal central-

⁴⁰ *Id.*, ___ A.3d at ___, 2012 WL 3030277 *24 (Brobson, J., dissenting).

⁴¹ See Laura Olson, *Justices Hear Opinions on Marcellus Shale Drilling Law*, PITTSBURGH POST-GAZETTE, Oct. 18, 2012 at **TK**.

⁴² Sy Gruza, *Will NYSDEC’s Proposed Regulations Prevent the Potential Adverse Impacts of Fracking?*, 42 ENVTL. L. REP. NEWS & ANALYSIS 10331, 10336 (2012).

⁴³ Gruza, *supra* note 42, (citing Peter Mantius, *Dryden and Middlefield Fracking Bans Tested*, D.C. BUREAU, Nov. 11, 2011, <http://www.dcbureau.org/201111116473/natural-resources-news-service/dryden-and-middlefield-fracking-bans-tested.html>).

⁴⁴ *Cooperstown Holstein Corp. v. Town of Middlefield*, 943 N.Y.S.2d 722, 768-69 (N.Y. Sup. Ct. 2012).

⁴⁵ *Id.* at 730.

⁴⁶ *Id.* at 777-78.

⁴⁷ *Id.* at 780 n.2 (citing *Gernatt Asphalt Products, Inc. v. Town of Sardinia*, 642 N.Y.S.2d 164 (N.Y. 1996)).

⁴⁸ See Marc Galanter, *Justice in Many Rooms: Courts, Private Ordering, and Indigenous Law*, 19 J. LEGAL PLURALISM 1, 1 n.1 (1981) (citing to Griffiths’ unpublished manuscript).

⁴⁹ Kevin E. Davis & Helen Hershkoff, *Contracting for Procedure*, 53 WM. & MARY L. REV. 507, 565 n.11 (2011).

⁵⁰ Lindsey Carson & Ronald J. Daniels, *The Persistent Dilemmas of Development: The Next Fifty Years*, 60 U. TORONTO L.J. 491, 510 (2010) (citing Galanter, *supra* note 48).

⁵¹ John Griffiths, *What is Legal Pluralism?*, 24 J. LEG. PLURALISM & UNOFFICIAL L. 1, 3 (1986).

⁵² Griffiths, *supra* note 51.

⁵³ David Fagundes, *Talk Derby to Me: Intellectual Property Norms Governing Roller Derby Pseudonyms*, 90 TEX. L. REV. 1093, 1094 (2012) (quoting Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950, 968 (1979)).

ism; they suggest that actors create norms independently of, not in reaction to, law.”⁵⁴ Ellickson’s work, in particular, evinces skepticism towards top-down controls. Professor Carol Rose described his view that centralism with respect to property law is being “administratively costly; that it is ham-handedly overprotective against nuisances; that it is rife with special interest favoritism; and perhaps most important, that it often has a number of damaging third-party effects, particularly in reducing housing opportunities for families of modest means.”⁵⁵

An example of the invocation of legal centralism particularly germane to property rights is the call that local governments “identify” building and zoning codes as a “mechanism” to “define” physical spaces, thereby “channeling lifestyles and behaviors” for the purpose of reducing GHG emissions.⁵⁶ Furthermore, the “environmental decade” of the 1970s has been termed one of “regulatory centralism,” the “regulatory ideal” being “to transfer as much authority as possible to the highest level of government.”⁵⁷

Central regulation is both under- and over-inclusive. Even if decision makers could correctly anticipate future problems in general terms, they could not spell their responses to all possible contingencies in specific detail, no matter how micro-managing regulations might seem.⁵⁸ Moreover, the law cannot anticipate all problems, even in general terms. Planning reflects “our blindness with respect to randomness, particularly large deviations.”⁵⁹

The growth of legal centralism is impeded by the rule of law, which includes the notion of general rules binding upon everyone, as opposed to rules made on the fly by administrators and judges.⁶⁰ Carbon taxes would comport with this model relatively easily, while a system for dispensing emission permits and administering markets in them would require considerably more regulation. However, despite (or because of) their simplicity and benefits, public choice considerations make their enactment extremely difficult, at best.⁶¹

2. The Role of Interest Groups

There is considerable debate about whether the collaborative regulation of resource management issues can be accomplished in a way that is both accountable and consistent with the public interest.⁶² James Madison endeavored to create a constitutional structure that provided the legitimacy of majoritarian government, partly through a framework that would ensure deliberation and also thwart domination by factions.⁶³ “After World War II, the prevailing political theory was an optimistic pluralism tied to Madison’s ideas,” although Professor Theodore Lowi referred to this as “interest-group liberalism.”⁶⁴ In particular, Lowi attacked the administrative state as incoherent as well as unjust, and suggested that the courts revive the nondelegation doctrine, in an attempt to make Congress accountable for key decisions.⁶⁵

⁵⁴ Fagundes, *supra* note 53, at 1095 (citing ROBERT C. ELICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 40 (3d prtg. 1994) (“[L]egal rules hardly ever influence the settlement of cattle-trespass disputes in Shasta County.”); ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 61 (1990) (“On the contrary, what one observes in these cases is the ongoing, side-by-side existence of private property and communal property in settings in which the individuals involved have exercised considerable control over institutional arrangements and property rights.”)).

⁵⁵ Carol M. Rose, *Of Natural Threads and Legal Hoops: Bob Ellickson’s Property Scholarship*, 18 WM. & MARY BILL RTS. J. 199, 201 (2009).

⁵⁶ Katrina Fischer Kuh, *Using Local Knowledge to Shrink the Individual Carbon Footprint*, 37 HOFSTRA L. REV. 923, 937-38 (2009).

⁵⁷ Michael G. Faure & Jason Scott Johnston, *The Law and Economics of Environmental Federalism: Europe and the United States Compared*, 27 VA. ENVTL. L.J. 205, 212 (2009) (asserting “[a]t its core, [the decade] was a new and massive federal pollution control regulatory structure. *Id.*”).

⁵⁸ See Andrew W. Stumpff, *The Law is a Fractal: The Attempt to Anticipate Everything*, 44 LOY. CHI. L. REV. ____ (Forthcoming, 20TK.) “Writing an exhaustive set of specific and appropriate rules in any context is equivalent to assigning labels to all the points on the number line: That is to say, it is literally an infinite task.” *Id.* at TK. (available at <http://ssrn.com/abstract=2157804>).

⁵⁹ NASSIM NICHOLAS TALEB, THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE xix (2007).

⁶⁰ See generally, Antonin Scalia, *The Rule of Law as a Law of Rules*, 56 U. CHI. L. REV. 1175, 1176-77 (1989).

⁶¹ See *infra*, Part 0 I.C.3. for discussion.

⁶² See, e.g., David J. Sousa & Christopher McGrory Klyza, *New Directions in Environmental Policy Making: An Emerging Collaborative Regime or Reinventing Interest Group Liberalism?*, 47 NAT. RESOURCES J. 377, 381 (2007).

⁶³ William N. Eskridge, Jr., *Politics Without Romance: Implications of Public Choice Theory for Statutory Interpretation*, 74 VA. L. REV. 275, 281 (1988).

⁶⁴ Eskridge, *supra* note 63, at 281 & n.20 (quoting THEODORE LOWI, THE END OF LIBERALISM 51 (2d ed. 1979)).

⁶⁵ Thomas W. Merrill, *Capture Theory and the Courts: 1967-1983*, 72 CHI-KENT L. REV. 1039, 1061 (1997).

The National Environmental Policy Act (“NEPA”)⁶⁶ has been described as “our basic national charter for protection of the environment,”⁶⁷ and as the environmental movement’s “Magna Carta.”⁶⁸ Nevertheless, the Supreme Court has described it in more constrained fashion, as a statute requiring that agencies consider and disclose environmental considerations in their decision making, and that “[t]he role of the courts [is] simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions”⁶⁹ Professor Sam Kalen suggested that Congress intended the “Magna Carta” to have a “substantive mandate,”⁷⁰ although the Supreme Court has not agreed.⁷¹ NEPA unquestionably has generated voluminous litigation.⁷²

In dealing with any large and complex phenomenon, information and insights are scattered among many people. Properly organized markets make it profitable for individuals to act upon their particular knowledge. Given the decentralization of knowledge in society, dispersed decision making is preferable.⁷³ The positing of mandates by statutes and administrative agencies truncates the dissemination of information process, helps organize interest group members by defining classes of people and firms subject to regulation, and leads to the concerted efforts of such groups, over time, capturing the agencies set up to regulate them.⁷⁴

However, in order to work effectively, and to prevent “slippage,”⁷⁵ environmental statutes require assiduous work by agencies, good monitoring programs evaluated by outside agencies, and the ability to overcome possible budgetary and political constraints.⁷⁶ An agency may well falter under different sets of demands from changing political administrations sympathetic and hostile to its mission, and subject to conflicting demands of Congressional committees and budgetary exigencies.⁷⁷

3. Carbon Taxes Versus Cap and Trade

Professor N. Gregory Mankiw stated a fundamental relationship of carbon taxation and cap-and-trade policies: “Cap-and-trade = Carbon tax + Corporate welfare.”⁷⁸

The amount of GHGs that could be emitted consistent with sustainability is limited. Market ownership of emission rights would thwart the despoliation often referred to as the “tragedy of the com-

⁶⁶ 42 U.S.C. 4371 et seq.

⁶⁷ 40 C.F.R. § 1500.1.

⁶⁸ See, e.g., Arthur W. Murphy, *The National Environmental Policy Act and the Licensing Process: Environmentalist Magna Carta or Agency Coup de Grace*, 72 COLUM. L. REV. 963 (1972).

⁶⁹ *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97–98 (1983).

⁷⁰ Sam Kalen, *Ecology Comes of Age: NEPA’s Lost Mandate*, 21 DUKE ENVTL. L. & POLICY FORUM 113, 118 (2010)

⁷¹ See, e.g., *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 371 (1989) (“NEPA does not work by mandating that agencies achieve particular substantive environmental results.”)

⁷² See Michael C. Blumm & Marla Nelson, *Pluralism and the Environment Revisited: The Role of Comment Agencies in NEPA Litigation*, 37 VT. L. REV. ____ (2012), available at: <http://ssrn.com/abstract=2066818>. “Based on annual surveys of all federal agencies, CEQ statistics show that between 2004 and 2008, an average of 122 new NEPA cases were filed each year, and as many as 251 NEPA cases were pending in 2005. *NEPA Litigation Survey*, NEPA.net (May 20, 2011), <http://ceq.hss.doe.gov/nepa/nepanet.htm>.” 37 VT. L. REV. at ____, <http://ceq.hss.doe.gov/nepa/nepanet.htm> at *2 n.6.

⁷³ See F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519 (1945).

⁷⁴ See, e.g., RICHARD J. PIERCE, JR. ET AL, *ADMINISTRATIVE LAW AND PROCESS* 18 (4th ed 2004) (“An agency is captured when it favors the concerns of the industry it regulates, which is well-represented by its trade groups and lawyers, over the interests of the general public, which is often unrepresented.”). The foundational articles are George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. MGMT. SCI. 3, 3 (1971) (asserting that “that, as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit”); and Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211, 212-13 (1976).

⁷⁵ Daniel A. Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 HARV. ENVTL. L. REV. 297 (1999).

⁷⁶ See Eric Biber, *The Problem of Environmental Monitoring*, 83 U. COLO. L. REV. 1, 82 (2011).

⁷⁷ The EPA is an example. See generally, JOEL A. MINTZ, *ENFORCEMENT AT THE ENVIRONMENTAL PROTECTION AGENCY* (Rev. Ed. 2012) (describing the “tumultuous history of EPA’s enforcement program” based on interviews with present and former enforcement officials at EPA and other federal agencies, and congressional staff).

⁷⁸ Greg Mankiw’s Blog, *The Fundamental Theorem of Carbon Taxation*, Aug. 2, 2007 (available at <http://gregmankiw.blogspot.com/2007/08/fundamental-theorem-of-carbon-taxation.html>). As chairman of President George W. Bush’s Council of Economic Advisors, Mankiw learned that “full-contact politics” did not reward such candor. He earlier had espoused raising gasoline taxes to fund an across-the-board income tax cut, and was forced to step down after defending the outsourcing of jobs as an economic “plus” for the United States. See Edmund L. Andrews, *Economics Adviser Learns the Principles of Politics*, NY TIMES, Feb. 26, 2004 at C4.

mons.”⁷⁹ But the process of establishing such rights is “a commons effort itself.”⁸⁰ This is illustrated by the tortuous path of President Obama’s climate initiative through the halls of Congress led to the proposed legislation taking the form of cap-and-trade, and giving most tradable emission permits to existing emitters instead of auctioning them off.⁸¹ Thus were derailed plans that the proceeds of a government permit auction be used to offset other taxes instead of their value inuring, as Professor Mankiw lamented, to “powerful special interests.”⁸²

Finally, while emitters who are granted the first tradable permits would thus enjoy a windfall, they, and subsequent purchasers of those valuable rights, would have every incentive to resist changes in law and technology that might enhance the economy or environment, but which would make them less valuable.

D. *Climate Change as a Paradigmatic Environmental Issue*

A widespread consensus exists that climate change is a serious problem. Economist William Nordhaus noted that unwillingness to address it could result in a loss of almost three percent of world output in 2100 and eight percent in 2200.⁸³ Failure to regulate GHGs that contribute to global warming, or to use alternative strategies for addressing the problem, could result in significant, and perhaps catastrophic damage.⁸⁴ Some claim that lack of support for a more robust climate policy results in part from a popular “comprehension vacuum” regarding the facts, subsequently filled by a “variety of interest groups” that have promoted “emotional and vitriolic” discourse.⁸⁵ There are, to be sure, reputable scientists in the ranks of climate change skeptics.⁸⁶

1. The Kyoto Protocols: Promise and Disappointment

The Kyoto Protocol, bound thirty-seven nations to reduce GHG emissions by an average of 5 percent below 1990 levels between 2008-2012, expired in 2012.⁸⁷

The Intergovernmental Panel on Climate Change, the United Nations’ scientific advisors, suggest that developed nations must cut their emissions “between 25% and 40% below 1990 levels by 2020, and between 50% and 85% by 2050” in order to “head off the worst effects of climate change.” Many believe, however, that such commitments are economically and practically infeasible.⁸⁸

While the Kyoto pact has resulted in reductions in GHG emissions, particularly in Western Europe, “it’s done nothing to curb global emissions, which have risen 1.5 times since 1990.”⁸⁹ Kyoto signatory nations account for only 20 percent of world GHG emissions, including Japan, which produces four

⁷⁹ Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968) (espousing mandatory birth control). By “commons,” Hardin was not referring to resources owned in common, but rather to open access areas in which there was no ownership. An earlier, and more sophisticated, explanation of the problem of common pool resources is H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. POL. ECON. 124, 135 (1954) (“[t]he fish in the sea are valueless to the fisherman, because there is no assurance that they will be there for him tomorrow if they are left behind today.”).

⁸⁰ Carol M. Rose, *Property and Emerging Environmental Issues—The Optimists vs. the Pessimists*, University of Arizona Legal Studies Discussion Paper No. 12-34 at 415 (October 2012) (citing James E. Krier, *The Tragedy of the Commons, Part Two*, 15 HARV. J. L. & PUB. POL’Y 325 (1991) (reviewing TERRY L. ANDERSON & DONALD R. LEAL, *FREE MARKET ENVIRONMENTALISM* (1991)) (available at <http://ssrn.com/abstract=2165525>).

⁸¹ N. Gregory Mankiw, *A Missed Opportunity on Climate Change*, N.Y. TIMES Aug. 8, 2009 at BU4.

⁸² *Id.*

⁸³ WILLIAM NORDHAUS, A QUESTION OF BALANCE: WEIGHING THE OPTIONS ON GLOBAL WARMING POLICIES 13-14 (2008).

⁸⁴ Robert W. Hahn, *Climate Policy: Separating Fact From Fantasy*, 33 HARV. ENVTL. L. REV. 557, 558 (2009)

⁸⁵ Shi-Ling Hsu, *A Prediction Market for Climate Outcomes*, 83 U. COLO. L. REV. 179, 181-82 (2011).

⁸⁶ *See, e.g.*, Hsu, *supra* note 85, at 186-87.

⁸⁷ Kyoto Protocol (1998), available at http://unfccc.int/kyoto_protocol/items/2830.php.

⁸⁸ Erin Sedloff, *Creating A Category Under the Kyoto Protocol Based on Non Emissions*, 18 HASTINGS W.-N.W. J. ENVTL. L. & POLICY 379, 380-81 (2012).

⁸⁹ Chico Harlan, *Japan Will Find Kyoto Pledge Hard to Fulfill: As the Nation Turns Away From Nuclear Power, Its Greenhouse Emissions Rise, Making Promised 25% Cut Highly Unlikely*, WASH. POST, Oct. 21, 2012 at A9.

percent. “Japan has come to object to the Kyoto agreement because it doesn’t include the United States and China, which are together responsible for 40 percent of the world’s emissions.” Other developing nations, including India and Brazil, also are not included. The foreign ministry has said that Japan “will not participate” in a renewal of the pact after its 2012 expiration.⁹⁰

Furthermore, even the drop in GHG emissions in Europe largely is due to the fact that European nations are engaged in purchases of goods that are made using coal from nations such as China. This might be described, alternatively, as either outsourcing their emissions, or importing more carbon.⁹¹

Global climate change, or, more precisely, attempts to moderate climate change, will have a very important role in the development of the right to *use* land, a property right that is arguably more important than the other traditional principal property rights, exclusion and alienability.⁹²

In December 2009, as the Copenhagen climate conference fell apart, the chairman of Greenpeace UK, John Sauven, said “the city of Copenhagen is a crime scene tonight, with the guilty men and women fleeing to the airport.” His remark captured some of the salient characteristics of climate policy: the importance of treaties and regulation; the central role of politicians, advocacy groups and non-governmental organisations such as Greenpeace; the pervasive moral certainty; and, though this was only in the background, the commitment to renewable energy, especially wind and solar power, as the primary means of cutting carbon emissions.⁹³

Japan, “once the poster child for aggressive environmental policy,” now has “little chance of meeting a pledge to cut greenhouse gas emissions significantly over the next decade, a startling retreat for a country that once spearheaded an international agreement on climate change.”⁹⁴

The lack of progress on an international climate change agreement shows no sign of being resolved any time soon. The Durban Conference of the Parties in December 2011 kept the Kyoto framework on life support, but only on the basis of an agreement to try to reach an agreement by 2015 about emissions caps after 2020. Amongst the main polluters, the USA is not doing much at the federal level. China is making significant investments in renewable energy, but is still rapidly adding more coal-fired power generation. Global emissions have not been dented since 1990, and globally coal has continued to increase both in relative share and in absolute amount. The only event that has made any substantial difference to global emissions is the economic crisis and the associated reduction in economic growth, but even this has had only a limited effect. Otherwise, 20 years of international actions (notably focused on the Kyoto Protocol) have produced no significant mitigation.⁹⁵

2. The Pivot to National and Sub-National Responses

Anticipating the failure of the Copenhagen climate conference to agree on a successor to Kyoto, Council on Foreign Relations Senior Fellow Michael Levi asserted: “The core of the global effort to cut emissions will not come from a single global treaty; it will have to be built from the bottom up—through ambitious national policies and creative international cooperation focused on specific opportunities to cut emissions.”⁹⁶

Yet, the relation of national and sub-national climate change authority and initiatives is a tricky business. For instance, “[t]he creation of new markets under the guise of cap-and-trade schemes will

⁹⁰ Harlan, *supra* note 89 (quoting Foreign Ministry spokesman Masaru Sato).

⁹¹ See DIETER HELM, *THE CARBON CRUNCH: HOW WE’RE GETTING CLIMATE CHANGE WRONG—AND HOW TO FIX IT* **TK** (Yale Univ. Press, Forthcoming 2012).

⁹² See *infra* notes 184-190 and associated text for discussion.

⁹³ *Climate Change Needs Better Regulation, Not More Political Will*, *THE ECONOMIST*, Oct. 20, 2012 at **TK** (review of DIETER HELM, *THE CARBON CRUNCH: HOW WE’RE GETTING CLIMATE CHANGE WRONG—AND HOW TO FIX IT*, (Yale University Press, forthcoming 2012)).

⁹⁴ Harlan, *supra* note 89 (citing unnamed government officials).

⁹⁵ Dieter Helm, Cameron Hepburn & Giovanni Ruta, *Trade, Climate Change and the Political Game Theory of Border Carbon Adjustments*, Centre for Climate Change Economics and Policy Working Paper No. 92, OX. REV. ECON. POL’Y (2012, forthcoming) (available at <http://www.cceep.ac.uk/Publications/Working-papers/Papers/90-99/Trade-climate-change-game-theory-carbon-adjustments.pdf>).

⁹⁶ Michael A. Levi, *Copenhagen’s Inconvenient Truth: How to Salvage the Climate Conference*, 88 *FOREIGN AFF.* 92, 93 (2009).

make it even more difficult to draw lines around federal jurisdiction over interstate commerce. These markets . . . will also make problematic the distinctions between local, national, and global concerns.”⁹⁷

3. The Role of States and Federalism in Climate Change

In an influential article,⁹⁸ Professor Daniel Farber argued for a “bifurcated approach” to the constitutional authority of states to attempt to mitigate climate change. While he advocated that courts reject regulations violative of the interstate or foreign commerce powers or lawful transactions under federal trading schemes, they otherwise should adopt a “strong presumption of validity” for such legislation.⁹⁹

“Many state governments have stepped in to fill the void left by the lack of aggressive federal climate mitigation policies.”¹⁰⁰ “Frustrated by a lack of leadership at the national level, the states are stepping up to the plate on climate change. . . . We need aggressive action at all levels of government and in all sectors of the economy to halt and reverse the increase in these emissions, with all deliberate speed.”¹⁰¹

Professor Farber’s concerns about regulation of interstate commerce are well founded. A case pending in the U.S. Court of Appeals for the Ninth Circuit, *Rocky Mountain Farmers Union v. Goldstene*,¹⁰² involves an application of the “carbon intensity” and lifecycle emissions analysis requirements of California’s Low Carbon Fuel Standard (“LCFS”) by the California Air Resources Board (“CARB”). Producers of Midwestern ethanol, which is made using coal-fired energy instead of cleaner fuels, were detrimentally affected. The U.S. district court found:

[T]he LCFS discriminates against out-of-state corn ethanol and impermissibly controls extraterritorial conduct. Moreover, Defendants fail to establish that no alternative means exist to address their legitimate concerns of combating global warming. Because the LCFS discriminates against interstate and foreign commerce, and because Defendants failed to satisfy their burden to establish the absence of adequate alternatives, this Court finds that the LCFS violates the dormant Commerce Clause.¹⁰³

The dormant Commerce Clause ruling was certified, and the case now is pending in the Ninth Circuit.¹⁰⁴ The industry’s claims include that, rather than imposing the cost of GHG emission reductions on citizens of California, the LCFS “seeks to force reductions in GHG emissions in other states (and countries), using the ultimate sale of a portion of the finished product in California as its regulatory hook.”¹⁰⁵

4. California Regulation: Like a Nation State?

On July 31, 2006, flanked by then-Prime Minister Tony Blair and global business leaders, California Governor Arnold Schwarzenegger “announced to the world that his state was no longer content to serve only a quasi-sovereign role: ‘California is a great part of the United States, but we happen to be a

⁹⁷ Farber, *supra* note 22, at 882.

⁹⁸ Farber, *supra* note 22,

⁹⁹ Farber, *supra* note 22, at 881.

¹⁰⁰ Gabriel Weil, *Subnational Climate Mitigation Policy: A Framework for Analysis*, 23 COLO. J. INTL. ENVTL. L. & POL’Y 285, 287 (2012) (citing: See generally Patrick Parenteau, *Lead, Follow or Get Out of the Way: The States Tackle Climate Change with Little Help from Washington*, 40 CONN. L. REV. 1453 (2008); Irma S. Russell & Jeffery S. Dennis, *State and Local Governments Address the Twin Challenges of Climate Change and Energy Alternatives*, 23 NAT. RESOURCES & ENVTL. 9 (2008); Mekaela Mahoney, *State and Local Governments Take the Reins in Combating Global Warming*, 38 URB. LAW. 585 (2006); Dale Bryk et al., Panel I: *State Initiatives to Reduce Greenhouse Gas Emissions*, 17 FORDHAM ENVTL. L. REV. 111 (2006)).

¹⁰¹ Parenteau, *supra* note 100, at 1455.

¹⁰² 843 F.Supp. 2d 1042 (E.D. Cal. Dec. 29, 2011); 843 F.Supp.2d 1071 (E.D. Cal. Dec. 29, 2011); 2011 WL 6936368 (slip op.), *appeal docketed*, Nos. 12-15131, 12-15135 (9th Cir. Jan. 20, 2012), *appeal docketed*, Nos. 12-15131, 12-15135 (9th Cir. Jan. 20, 2012).

¹⁰³ *Rocky Mt. Farmers Union v. Goldstene*, 2011 WL 6936368 (E.D. Cal. 2011).

¹⁰⁴ *Rocky Mt. Farmers Union v. Goldstene*, *appeal docketed*, Nos. 12-15131, 12-15135 (9th Cir. Jan. 20, 2012).

¹⁰⁵ No. 12-15131, Brief of Appellees at 17 (filed Aug. 6, 2012).

leading state with a huge economy, and we are, like I say, a nation state.”¹⁰⁶ Governor Schwarzenegger added that, unlike the federal government, California would “show leadership” in GHG emissions, whether other emitters went along or not.¹⁰⁷

The California Global Warming Solutions Act of 2006,¹⁰⁸ commonly referred to as “A.B. 32,” requires that listed GHG emissions contributing to climate change be reduced to 1990 levels by 2020, which would constitute a reduction of about 25 percent from existing trends.¹⁰⁹

A contemporaneous *New York Times* article concluded: “California, in fact, is making a huge bet: that it can reduce emissions without wrecking its economy, and therefore inspire other states—and countries—to follow its example on slowing climate change.”¹¹⁰ That article, in part, inspired Cass Sunstein to explore the problem more systematically.¹¹¹

In 2006, California enacted a statute that would, by 2020, stabilize the state’s emissions at 1990 levels—a step that would call for a 25% reduction under a “business as usual” approach. This enactment raises many questions. As a first approximation it will, by itself, contribute nothing to reductions in climate change by 2050, 2100, or any other date. Recall that the Kyoto Protocol would have produced only a modest reduction in warming by 2100; if California embarked on a reduction to 1990 levels on its own, without any action by any other state or nation, there would be no discernable impact on the world’s climate. At the same time, a 25% reduction in greenhouse gases would almost certainly impose significant costs on the citizens of California. Hence there is a positive question: Why did California vote for a program that would appear to produce no benefits while imposing real costs? There is also a normative objection, which is that California should not, in fact, impose real costs on its own citizens without also delivering benefits to those citizens, or at least to the world.¹¹²

Sunstein postulated that possible explanations included a desire by the state’s governor, contemplating a tough reelection campaign, to signal his commitment to what many residents considered the moral issue of climate change.¹¹³

The failure of predicted multi-state initiatives in Western, Midwestern, and Northeastern states has thwarted predictions by environments that the United States would “lock in major cuts” in GHGs.¹¹⁴ California is pressing ahead, without the six states that initially had planning to join it.¹¹⁵ Robert Stavins, who heads the Harvard environmental economics program, said that “there are ‘legitimate concerns’ about whether California’s imported electricity, which makes up half of its carbon emissions, may end up selling fossil-fuel energy to other states, while directing its renewal sources toward California sources.”¹¹⁶

Complementing the energy provisions of A.B. 32, the California Sustainable Communities Strategy Act of 2008,¹¹⁷ and (“S.B. 375”) was described as “a landmark piece of anti-sprawl legislation that promises to achieve smart and sustainable land use planning and development throughout the state.”¹¹⁸ It “is succinctly described as ‘providing [vehicle] emissions-reduction goals around which regions can plan—integrating disjointed planning activities and providing incentives for local governments and de-

¹⁰⁶ Douglas A. Kysar & Bernadette A. Meyler, *Like A Nation State*, 55 UCLA L. REV. 1621, 1622 (2008) (quoting Governor’s Remarks, Office of the Governor of the State of Cal., “Gov. Schwarzenegger, British Prime Minister Tony Blair Sign Historic Agreement to Collaborate on Climate Change, Clean Energy” (July 31, 2006), available at <http://gov.ca.gov/index.php/print-version/speech/2918>.)

¹⁰⁷ *Id.* (quoting “Governor’s Remarks”).

¹⁰⁸ Codified at CAL. HEALTH & SAFETY CODE §§ 38500 to 38516.

¹⁰⁹ California Air Resources Board (CARB), Climate Change, <http://www.arb.ca.gov/cc/cc.htm> (June 24, 2008).

¹¹⁰ Felicity Barringer, *California, Taking Big Gamble, Tries to Curb Greenhouse Gases*, N.Y. TIMES, Sept. 15, 2006 at A1.

¹¹¹ Cass R. Sunstein, *Of Montreal and Kyoto: A Tale of Two Protocols*, 31 HARV. ENVTL L. REV. 1, 34 n.232 (2007) (citing Barringer, *supra* note 110).

¹¹² Sunstein, *supra* note 111, at 58-59 (quoting Barringer, *supra* note 110, at TK).

¹¹³ Sunstein, *supra* note 111, at 59.

¹¹⁴ Juliet Eilperin, *Climate Policy Advances in the States, But Slowly*, WASH. POST., Nov. 5, 2012 at A2.

¹¹⁵ Eilperin, *supra* note 114.

¹¹⁶ Eilperin, *supra* note 114.

¹¹⁷ Sustainable Communities Strategy and Climate Protection Act, S.B. 375, 2007-2008 Leg. Sess. (Cal. 2008) (codified at scattered sections of CAL. GOV’T CODE and CAL. PUB. RES. CODE).

¹¹⁸ Robert H. Freilich & Neil M. Popowitz, *The Umbrella of Sustainability: Smart Growth, New Urbanism, Renewable Energy and Green Development in the 21st Century*, 42 URB. LAW. 1, 19-20 (2010).

velopers to follow new conscientiously-planned growth patterns.”¹¹⁹ S.B. 375 extends well beyond traditional land use legislation.

Urban planners, traffic engineers, and homebuilders now talk of “complete streets,” “active transportation,” and “walkability,” putting pedestrians and bicyclists on the same plane as automobiles. These and other key terms in holistic planning connote the public benefits that S.B. 375 promises to deliver beyond reductions in global warming emissions. “Compact development,” for example, translates to more undeveloped land for wildlife, for growing food locally, and for filtering out pollutants in stormwater runoff.¹²⁰

Another explanation of California’s outlier status is that its citizens are perhaps not sacrificing their states’ economic interests to their altruistic or moral preferences. Instead, they are using what Professor Ann Carlson dubbed “iterative federalism.”¹²¹ Under this model, “[t]he most innovative state responses to climate change are neither the product of state regulation alone nor are they exclusively the result of federal action. Instead, such regulations are the results of repeated, sustained, and dynamic law-making efforts involving both levels of government.”¹²²

Professor Carlson adds that the California experience “demonstrates a significant benefit of devolution: minimizing the risk of overly stringent national regulation while allowing individual states to experiment and take risks. Premature federal adoption of California’s rigorous emissions standards might have proven much costlier than allowing California first to experiment and then having the federal government act.”¹²³ Of course, an individual state’s strategies might implicate a constitutionally questionable shift of burdens to other states.¹²⁴

5. Environmental Regulations at Cross Purposes

Nontrivial decision making inevitably involves tradeoffs. Benefits to some elements of the biosphere might well harm others, and programs that produce some benefits to humans might entail corresponding detriments. Thus, it is important to provide “a rationale for resolving conflicting habitat needs among resources of concern.”¹²⁵

One important environmental issue involves the relationship between energy efficiency and public health in the U.S. Green Building Council’s “Leadership in Energy and Environmental Design” (“LEED”) certification programs.¹²⁶ A recent report discusses the collision within LEED standards between energy efficiency and human health, explaining that the “LEED program for ‘new construction and renovation’ considers human health within its ‘indoor environmental quality’ category,” which “constitute[s] only 13.6 percent of the total possible award.”¹²⁷

Chemical and pollutant source control and materials emissions are perhaps most relevant to human health among all the criteria considered, yet collectively account for a very small percentage of the total score awarded to a project. A building may receive “platinum,” or the highest ranking in the LEED system, without any points being awarded in the category intended to protect human health.

¹¹⁹ Freilich & Popowitz, *supra* note 118 (quoting Press Release, California Office of the Governor, *Governor Signs Sweeping Legislation to Reduce Greenhouse Gas Emissions through Land Use* (Sept. 30, 2008), available at <http://gov.ca.gov/press-release/10697>).

¹²⁰ Mary D. Nichols, *Sustainable Communities for A Sustainable State: California's Efforts to Curb Sprawl and Cut Global Warming Emissions*, 12 VT. J. ENVTL. L. 185, 189 (2010).

¹²¹ Ann E. Carlson, *Iterative Federalism and Climate Change*, 103 Nw. U. L. Rev. 1097 (2009).

¹²² Carlson, *supra* note 121, at 1099.

¹²³ Carlson, *supra* note 121, at 1103.

¹²⁴ See *supra* Notes 102-105 and accompanying text (discussing the pending *Rocky Mountain Farmers Union* litigation).

¹²⁵ Debra L. Donahue, *Trampling the Public Trust*, 37 B.C. ENVTL. AFF. L. REV. 257, 316 (2010) (quoting BRUCE L. SMITH ET AL., *IMPERFECT PASTURE: A CENTURY OF CHANGE AT THE NATIONAL ELK REFUGE IN JACKSON HOLE, WYOMING 1* (2004), and citing 16 U.S.C.A. § 668dd(a)(4)(B) (West) (providing a duty upon the National Wildlife Refuge System to “ensure that the biological integrity, diversity, and environmental health of the System are maintained”).

¹²⁶ See also *supra* Part 0 IIE.3. (discussing LEED in the context of secondary rent seeking).

¹²⁷ LEED CERTIFICATION: WHERE ENERGY EFFICIENCY COLLIDES WITH HUMAN HEALTH, Environment & Human Health, Inc. 2010, available at http://www.ehhi.org/reports/leed/LEED_report_0510.pdf.

* * *

LEED building certification standards that insufficiently account for threats to human health are being adopted or encouraged by many U.S. laws and regulations. A rapidly growing number of federal, state, and local laws and regulations are adopting LEED standards that affect building codes and zoning and subdivision regulations.¹²⁸

The question of possible incompatibility of LEED building standards and public health brings up a broader issue involving the coordination and compatibility of regulations. According to Professor Holly Doremus,

Calls for unified environmental regulation and oversight are common today, for good reason. Fragmentation of authority and responsibility may mean that no one ever takes a comprehensive view of the system, or that agencies work at cross-purposes. It can bring unnecessary duplication, with attendant inefficiencies. More subtly, where multiple agencies share authority over the multiple causes of an environmental problem, each may be tempted to avoid taking politically difficult steps to address it.¹²⁹

But, Professor Doremus's observation cuts in several directions. Her point about duplication seems fairly clear. However, is it the case that a comprehensive view would point to a clear strategy? Does dealing with the multiple causes of an environmental problem create new environmental problems, or might it ease them?

As an example of strategic thinking, Professor J. B. Ruhl suggests that, in developing a Fish and Wildlife Service response to *Massachusetts v. EPA*,¹³⁰ "the ESA [Endangered Species Act] should not be used to regulate greenhouse gas emissions, but rather that it should be focused on establishing protective measures for species that have a chance of surviving the climate change transition and establishing a viable population in the future climate regime."¹³¹ Ruhl added: "In particular, the ESA can help ensure that human adaptation to climate change does not prevent other species from adapting as well."¹³²

While enforcement concerns have centered on exploitation of traditional carbon-based energy sources, conflicts with animals and animal habitats occur in conjunction with renewable energy resources, as well.¹³³ Renewable energy is produced at low densities and thus adversely affects substantial areas.¹³⁴ Notably, the land-intensive nature of such projects potentially has adverse impacts on open space and aesthetic values,¹³⁵ and the siting of wind power facilities has drawn numerous complaints of "visual pollution."¹³⁶

Restrictions on low-density housing, advocated to reduce infrastructure costs and energy use, might have untoward consequences for human ecology, such as by affecting the socioeconomic mix of people in ethnic neighborhoods.¹³⁷ Urban growth boundaries and similar restrictions on residential devel-

¹²⁸ LEED CERTIFICATION, *supra* note 127, at 8-9.

¹²⁹ Holly Doremus, *Through Another's Eyes: Getting the Benefit of Outside Perspectives in Environmental Review*, 38 B.C. ENVTL. AFF. L. REV. 247, 251 (2011) (footnotes omitted).

¹³⁰ 549 U.S. 497 (2007).

¹³¹ J.B. Ruhl, *Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future*, 88 B.U. L. REV. 1, 2 (2008).

¹³² Ruhl, *supra* note 131.

¹³³ See generally, Alexandra B. Klass, *Energy and Animals: A History of Conflict*, 3 SAN DIEGO J. CLIMATE & ENERGY LAW 159 (2012) (noting long history of conflict and court decisions attempting to balance statutory and regulatory mandates to enhance energy production and protection of animals and habitat).

¹³⁴ See, e.g., Ronald H. Rosenberg, *Making Renewable Energy a Reality—Finding Ways to Site Wind Power Facilities*, 32 WM. & MARY ENVTL. L. & POL'Y REV. 635, 641 (2008). "By using so many acres of land for these large, manufactured generating structures, multi-turbine wind farms represent a major change to existing, low-density, natural land use patterns." *Id.*

¹³⁵ See generally, Alexandra B. Klass, *Renewable Energy and the Public Trust Doctrine*, 45 U. C. DAVIS L. REV. 1021 (2012).

¹³⁶ See, e.g., Adam Sherwin, "Sighting" Wind Energy Facilities in Vermont: Finding the Right Balance Between Societal Benefits and Aesthetic Burden, 17 Buff. Envtl. L.J. 1, 41 n.207 (2010) (noting concerns about commercial wind energy projects on Vermont ridgelines, and that a proposed wind farm project in Massachusetts, to be located near Cape Cod, Martha's Vineyard, and Nantucket, "could be America's first offshore wind farm" and similarly "has drawn opposition for its "visual pollution."")

¹³⁷ See, e.g., *Chinese Staff & Workers Ass'n v. City of New York*, 50 N.E.2d 176, 180-81 (N.Y. 1986). See *infra* notes 234-**Error! Bookmark not defined.** and associated text for discussion.

opment result in less spacious and more expensive housing.¹³⁸All of this leads to questioning the long-term effects of taking sides to preserve one aspect of the environment at the ensuing harm to another.

6. Avoidance of climate change issues

The potential future conflicts between environmental regulation and property rights highlighted in the this Article are one significant reason why the politics of environmental protection in general, and climate change in particular, are so difficult. “The two most effective ways of reducing global warming pollution—taxing it or regulating it—are politically toxic in a year when economic problems are paramount.”¹³⁹ Furthermore,

International efforts to address climate change, which showed great promise when Mr. Obama took office, have sputtered in recent years because of fears that limiting carbon emissions means limiting economic growth. There is also considerable resistance to any plan that would require the United States and other wealthy countries to take stronger measures than those demanded of China, India and other fast-growing economies that are responsible for the bulk of the growth in global emissions.¹⁴⁰

II. PROPERTY RIGHTS AND ENVIRONMENTAL REGULATION

This Part explores the under-inclusion of property rights concepts in the environmental regulation decision making context. It then proceeds to examine three instances where property rights are especially in jeopardy—“smart growth” and the use of transferrable development rights, land development exactions, and green redevelopment’s susceptibility to crony capitalism.

A. *The Importance of Private Property*

A strong system of private property rights promotes economic wellbeing, and also protects individual liberty and autonomy. Historically, property in land has been a principal source of wealth and also a guarantor individual liberty. The emphasis on property rights enunciated by John Locke and the Whigs “profoundly influenced the founding generation.”¹⁴¹ “By the late eighteenth century, ‘Lockean’ ideas of government and revolution were accepted everywhere in America; they seemed, in fact, a statement of principles built into English constitutional tradition.”¹⁴² Summing up this heritage, President John Adams proclaimed: “Property must be secured or liberty cannot exist.”¹⁴³

A contemporary analysis by constitutional historian James Ely concluded that property is the “guardian of every other right.”¹⁴⁴ Precisely because “private property is one of our most comprehensive social institutions, . . . it is not a sensible construction . . . to limit it to . . . the protection of the right to exclude only, when the conception from Roman times forward has always included the rights of use and disposition as well.”¹⁴⁵

¹³⁸ See William A. Fischel, *Comment on Anthony Downs’s “Have Housing Prices Risen Faster in Portland Than Elsewhere?”*, 13 HOUS. POL’Y DEBATE 43 (2002) (asserting that growth controls in Western states have led to a “permanent differential” in home prices, and that Portland’s “policy of promoting infill development does not seem to have offset the containment effects of its urban growth boundary.” *Id.* at 43 (abstract)).

¹³⁹ See John M. Broder, *Nearly Absent in the Campaign: Climate Change*, N.Y. TIMES, Oct. 25, 2012 at TK (noting that while President Obama and Governor Mitt Romney “agree that the world is warming and that humans are at least partly to blame,” both “have seemed most intent on trying to outdo each other as lovers of coal, oil, and natural gas”).

¹⁴⁰ Broder, *supra* note 139.

¹⁴¹ James W. Ely Jr., *The Constitution and Economic Liberty*, 35 HARV. J.L. & PUB. POL’Y 27, 29-30 (2012).

¹⁴² PAULINE MAIER, *AMERICAN SCRIPTURE: MAKING THE DECLARATION OF INDEPENDENCE*, 87 (1997).

¹⁴³ 6 THE WORKS OF JOHN ADAMS 280 (Charles Francis Adams ed. 1850), *quoted in* JEAN EDWARD SMITH, JOHN MARSHALL: DEFINER OF A NATION 388 (1996). See generally, Steven J. Eagle, *The Development of Property Rights in America and the Property Rights Movement*, 1 GEO. J.L. & PUB. POL’Y 77 (2002).

¹⁴⁴ JAMES W. ELY, JR., *THE GUARDIAN OF EVERY OTHER RIGHT: A CONSTITUTIONAL HISTORY OF PROPERTY RIGHTS* (3d ed. 2008).

¹⁴⁵ Richard A. Epstein, *Taking Stock of Takings: An Author’s Retrospective*, 15 WM. & MARY BILL RTS. J. 407, 408 (2006).

However, the meaning of “property” hardly is uncontested. Contrasting with the Lockean account stressing individual rights, property has been viewed through other lenses, including the “civic republican” stress on community and individual virtue.¹⁴⁶ Some commentators, including Professors Eric Freyfogle,¹⁴⁷ Joseph Sax,¹⁴⁸ and others,¹⁴⁹ point in various ways to property as rooted in community generally rather than in individualism. Professor Christopher Serkin asserted that economics-oriented accounts of property rights miss fundamental aspects of the connection that can develop between people and existing uses of their property.¹⁵⁰

As noted by Professor Eric Claeys, some commentators have assumed that the concept of property and recognition of its importance would remain undisturbed, even while it is treated as instrumental, and its substance transformed to suit immediate policy goals.¹⁵¹ This author has expressed skepticism about that project elsewhere.¹⁵² Some legal scholars have argued that no special constitutional or normative protection is owed existing land uses.¹⁵³ Often, the gravamen of disputes is whether the property rights of individuals are the baseline and predominant interest, or whether the environmental concerns enunciated by environmentalists and some government officials is the baseline interest.¹⁵⁴

Also of note, England itself abrogated the doctrine that landowners are entitled to make new uses of their land in 1947, with the promulgation of the Town and Country Planning Act.¹⁵⁵ Professor Peter Byrne attributed this as a consequence of “the nineteenth century development of ‘the great movement for the regulation of life in the cities and towns in the interests of public health and amenity.’”¹⁵⁶

1. Individual Autonomy Versus Community Obligation

The importance of private property is not denigrated by the interrelated nature of the environment.¹⁵⁷ However, in Professor Joseph Sax’s view, the environment is akin to a commons that everyone has an obligation to care for.¹⁵⁸ These disparate perspectives are illustrated in the debate between Professors Sax and Richard Epstein regarding *Just v. Marinette County*,¹⁵⁹ where, in 1972, the Wisconsin Supreme Court upheld a prohibition on almost all development within a specified distance from navigable waters.¹⁶⁰

¹⁴⁶ See, e.g., William Michael Treanor, *The Original Understanding of the Takings Clause and the Political Process*, 95 COLUM. L. REV. 782, 821 (1995).

¹⁴⁷ See, e.g., Eric T. Freyfogle, *The Owning and Taking of Sensitive Lands*, 43 UCLA L. REV. 77 (1995); Eric T. Freyfogle, *Ownership and Ecology*, 43 CASE W. L. REV. 1269 (1993); Eric T. Freyfogle, *Context and Accommodation in Modern Property Law*, 41 STAN. L. REV. 1529 (1989).

¹⁴⁸ See, e.g., Joseph L. Sax, *The Unfinished Agenda of Environmental Law*, 14 HASTINGS N.-N.W. J. ENVTL. L. & POL’Y 1 (2008); Joseph L. Sax, *Takings, Private Property and Public Rights*, 81 YALE L.J. 149 (1971); Joseph L. Sax, *The Search for Environmental Rights*, 6 J. LAND USE & ENVTL L. 93 (1990).

¹⁴⁹ See, e.g., Gregory S. Alexander, Eduardo M. Peñalver, Joseph William Singer & Laura S. Underkuffler, *A Statement of Progressive Property*, 94 CORNELL L. REV. 743 (2009).

¹⁵⁰ Christopher Serkin, *Existing Uses and the Limits of Land Use Regulations*, 84 N.Y.U. L. REV. 1222, 1273 (2009) (expanding upon Professor Margaret Radin’s view that property enhances personhood, and citing, *inter alia*, Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982)).

¹⁵¹ See, e.g., Eric R. Claeys, *Property 101: Is Property a Thing or a Bundle?*, 32 SEATTLE U. L. REV. 617, 619 (2009) (noting that the “bundle of sticks” metaphor as “conceptual shorthand for an implicit normative claim: that policy analysis may treat property as an instrument for directly promoting immediate policy goals, without disrupting property’s foundational functions.”).

¹⁵² Steven J. Eagle, *The Really New Property: A Skeptical Appraisal*, 43 IND. L. REV. 1229 (2010).

¹⁵³ See, e.g., Christopher Serkin, *supra* note 150 (concluding that existing uses should be subject to the same takings and due process analyses that apply to all regulation and governmental action).

¹⁵⁴ See, e.g., Phillip M. Kannan, 31 WM. & MARY ENVTL. L. & POL’Y REV. 409, 411-16 (2007) (analyzing, through the lens of societal baselines, the Supreme Court’s opinions as to whether we should look to private property rights or environmental protection is discerning the meaning of “navigable waters” under the Clean Water Act in *Rapanos v. United States*, 574 U.S. 715 (2006)).

¹⁵⁵ J. Peter Byrne, *Ten Arguments for the Abolition of the Regulatory Takings Doctrine*, 22 ECOLOGY L.Q. 89, 106 (1995) (citing the Town and Country Planning Act, 1947, 10 & 11 Geo. 6, ch. 51 (Eng.) (as amended)).

¹⁵⁶ Byrne, *supra* note 155, at 107 (quoting *Belfast Corp. v. O.D. Cars Ltd.*, 1960 App. Cas. 490, 523 (appeal taken from N. Ir.)).

¹⁵⁷ JOHN MUIR, *MY FIRST SUMMER IN THE SIERRA* 211 (1911). “When we try to pick out anything by itself, we find it hitched to everything else in the universe.”

¹⁵⁸ See, Sax, *Unfinished Agenda*, *supra* note 148, at 2.

¹⁵⁹ 201 N.W.2d 761 (Wis. 1972) (discussed in RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* 121-23 (1985)).

¹⁶⁰ *Id.*

Professor Sax's argument is that interdependence requires stewardship.

Here is a case that traditional property law does not comfortably fit. To be sure, the Justs owned land, and certainly had an expectation of developing it. On the other hand, whatever developmental right the Justs would ordinarily have, there is certainly no authority to suggest that they had a right to damage a navigable river. . . .

The supposed strength of Epstein's physical invasion test, and of his reliance on traditional tort law standards as a measure, is its moral quality. In a world in which individuals have distinct and independent items of property, there is at least some claim to be left alone, both by others and by the state. But if interdependency is the dominant fact (your land is inextricable from the navigable waters that you do not own)—and that is the essence of the wetland, as revealed by modern biological knowledge—then it would seem that the traditional property approach, such as the physical invasion test, would deserve thoughtful reconsideration.¹⁶¹

Professor Epstein's rejoinder is that our discarding the traditional doctrine that ownership of land includes the right of development would make us vulnerable to self-seeking decision making.

. . . If the argument is that any environmental consideration can constrain development in the wetlands, then the same objections that Joe raises can be raised with respect to any and all property at any and all times so that the only issue is one of political will.

Now why do I passionately resist the idea that somehow or other as we know more about the interactions of various kinds of natural behavior and phenomena, we should feel free to 'redefine' the underlying property rights? The answer I think is very clear from what I've said before: somebody is going to have to do the redefining. If Joe is correct, then, in effect all development rights cease to be well specified. They may stay with the individual, or they may be blocked by the state, but there is no process which prevents the alternation back and forth from one side to the other. It then becomes the classic rent seeking dynamic driving you to a social minimum.¹⁶²

2. Common Law Environmentalism

The common law long has held that interference with quiet enjoyment of a neighbor's land is actionable as a nuisance, even without physical trespass.¹⁶³ More generally, a person cannot use his land to harm another.¹⁶⁴ Through common law concepts of private and public nuisance, much environmentally destructive activity could be precluded.¹⁶⁵ The common law served as a "kind of zoning" by encouraging polluters to settle away from populated areas, and later providing incentive for pollution control technology.¹⁶⁶ However, "its requirement that plaintiffs demonstrate individualized proof of causal injury was a significant obstacle to its ability to respond to the multiple-source, multiple-pollutant problems that we encounter far more typically today."¹⁶⁷

3. The Lack of Standards Protecting Against Takings

Aside from instances where government deprives a landowner of all economic use of the parcel,¹⁶⁸ undertakes a permanent physical invasion,¹⁶⁹ or exacts an interest as a condition for granting a development permit,¹⁷⁰ there is no objective standard for determining when the owner is entitled to just

¹⁶¹ Joseph L. Sax, *Takings*, 53 U. CHI. L. REV. 279, 289-91 (1986).

¹⁶² Richard Epstein, Bruce Ackerman, Frank Michelman, *et. al.*, *Proceedings of the Conference on Takings of Property and the Constitution*, 41 U. MIAMI L. REV. 49, 54-55 (1986).

¹⁶³ *Aldred's Case*, 77 Eng. Rep. 816 (1611).

¹⁶⁴ *Tenant v. Goldwin*, 92 Eng. Rep. 222, 224 (1702) (stating the principle that "every man must so use his own as not to damnify another").

¹⁶⁵ *See, e.g.*, Roger Meiners & Bruce Yandle, *Common Law and the Conceit of Modern Environmental Policy*, 7 GEO. MASON L. REV. 923 (1999); Jason J. Czarnecki & Mark L. Thomsen, *Advancing the Rebirth of Environmental Common Law*, 34 B.C. ENVTL. AFF. L. REV. 1 (2007).

¹⁶⁶ Robert V. Percival, *Environmental Law in the Twenty-First Century*, 25 VA. ENVTL. L.J. 1, 5 (2007).

¹⁶⁷ Percival, *supra* note 166.

¹⁶⁸ *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992).

¹⁶⁹ *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982).

¹⁷⁰ *Nollan v. Cal. Coastal Comm'n*, 483 U.S. 825 (1987); *Dolan v. City of Tigard*, 512 U.S. 374 (1994). *See infra* Part III.A.

compensation under the Takings Clause.¹⁷¹ The Supreme Court’s general test for such takings is the ad hoc, multi-factor determination set forth in *Penn Central Transportation Co. v. City of New York*,¹⁷² and affirmed in *Palazzolo v. Rhode Island*,¹⁷³ and also in the Court’s subsequent summary of takings law in *Tahoe-Sierra Preservation Council v. Tahoe Regional Planning Agency*.¹⁷⁴

Although eschewing an objective test, *Penn Central* noted three factors “that have particular significance,” the “economic impact of the regulation on the claimant,” the “extent to which the regulation has interfered with distinct investment-backed expectations,” and the “character of the governmental action.”¹⁷⁵ The Court has declined to examine the extent to which other tests should be included in the balance,¹⁷⁶ how the three enumerated tests might be weighted, or how many tests the claimant has to satisfy, and by what standard.¹⁷⁷ The Supreme Court’s *Penn Central* line of cases might be an instance, as Professor Thomas Merrill provocatively put it, where “a ‘totality of the circumstances’ analysis masks intellectual bankruptcy.”¹⁷⁸

The jurisprudence of Justice Kennedy is reflective of the all-facts-and-circumstances approach, as evidenced by his concurring only in the judgment in *Lucas v. South Carolina Coastal Council*,¹⁷⁹ his asserted willingness to impose heightened scrutiny of condemnation for redevelopment where this is evidence of systematic abuse in *Kelo v. City of New London*,¹⁸⁰ and his swing opinion about the scope of the Clean Water Act in *Rapanos v. United States*.¹⁸¹ In any event, Justice Kennedy has an “‘astounding record’ for being in the majority in environmental cases.”¹⁸²

B. *Environmental Law Might Subordinate Property Rights*

In considering the future of environmental and natural resources law, it is no surprise that environmental supporters might treat property rights as incidental to the enterprise. Indeed, government agencies with environmental missions are prone to discuss property rights, if at all, only in the context of the potential for inverse condemnation litigation, and honor property rights only to the extent necessary to avoid having to pay just compensation for their appropriation.¹⁸³

Environmental issues are particularly amenable to incidental treatment of property rights, since conventional understandings of property often emphasize its attribute that permits an owner to exclude others.¹⁸⁴ This gives short shrift to alienability, another important attribute of “property.”¹⁸⁵ For present

¹⁷¹ U.S. CONST. amend. V (“nor shall private property be taken for public use, without just compensation”).

¹⁷² 438 U.S. 104 (1978).

¹⁷³ 533 U.S. 606, 636 (2001) (O’Connor, J., concurring) (declaring “[o]ur polestar instead remains the principles set forth in *Penn Central* itself and our other cases that govern partial regulatory takings.”).

¹⁷⁴ 535 U.S. 302, 335-36 (2002) (quoting “polestar” language approvingly).

¹⁷⁵ *Penn Central*, 483 U.S. at 124.

¹⁷⁶ Compare *Kavanau v. Santa Monica Rent Control Bd.*, 941 P.2d 851, 860 (Cal. 1997) (enumerating ten regulatory takings factors in addition to the three posited in *Penn Central*, and adding that “instead of applying these factors mechanically, checking them off as it proceeds, a court should apply them as appropriate to the facts of the case it is considering”).

¹⁷⁷ See, e.g., *CCA Assocs. v. United States*, 667 F.3d 1239 (Fed. Cir. 2011), cert. denied, 129 S.Ct. 1313 (Feb. 23, 2012) (raising issues stated in text).

¹⁷⁸ Thomas W. Merrill, *The Economics of Public Use*, 72 CORNELL L. REV. 61, 93 (1986).

¹⁷⁹ 505 U.S. 1003 (1992).

¹⁸⁰ 545 U.S. 469 (2005) (upholding takings of sound residences for retransfer for private economic revitalization as a permissible public use).

¹⁸¹ 547 U.S. 715, 758 (2006) (Kennedy, J., concurring in the judgment).

¹⁸² See Michael C. Blumm & Sherry L. Bosse, *Justice Kennedy and the Environment: Property, States’ Rights, and A Persistent Search for Nexus*, 82 WASH. L. REV. 667, 673 (2007) (analyzing Justice Kennedy’s environmental record) (quoting Richard J. Lazarus, *Restoring What’s Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. REV. 703, 714 (2000) (noting that Kennedy was in the majority in 56 of 57 cases decided between 1988 and 2000)).

¹⁸³ One example is the term “takings override,” used by the California Coastal Commission to describe the (in its view, very limited) situations in which its mission of environmental preservation must yield to property rights. See Steven J. Eagle, *The Parcel and Then Some: Unity of Ownership and the Parcel as a Whole* 36 VT. L. REV. 549, 594 (2012) (describing efforts of the Commission to treat in unitary fashion separate parcels with no demonstrated legal overlap of ownership but with some neighborly coordination in uses).

¹⁸⁴ See, e.g., Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 734 (1999) (asserting that “the right to exclude others is the irreducible core attribute of property.”)

¹⁸⁵ See, e.g. *Andrus v. Allard*, 444 U.S. 51 (1979) (upholding prohibitions on the sale of legally owned eagle feathers as facilitating prosecutions for illegal possession).

purposes, however, the overwhelming aspect of “property” that often is neglected in environmental law is the attribute of use.

From a conceptual perspective, “[t]he basis of a property entitlement is in the use of something, which provides a substantive baseline for defining the limits of the legally enforced right to exclude.”¹⁸⁶ Another way of putting it is that “property consists of a conceptual right instituted to secure a normative interest in determining exclusively the use of an external asset. Normatively, the core of property consists of use of an external asset.”¹⁸⁷ From a practical perspective, the environment is not affected by who has nominal legal title to land, or who has the power to exclude others from the land. What counts is not the occupant’s title, but rather the occupant’s actions.

The Supreme Court has held that the complete deprivation of a landowner’s economically viable use requires just compensation.¹⁸⁸ However, it would make little sense for government to acquire land through eminent domain when it could achieve the same result either by articulating a modicum of environmental justification,¹⁸⁹ or by permitting the owner to retain a modicum of benefit.¹⁹⁰ But the sweep of aspirational statutes like the Endangered Species Act can be great,¹⁹¹ so that incidental environmental effects count, as well as intended ones.¹⁹²

Restrictions on property based on projected nuisance-like uses have profound consequences. “In the context of modern zoning, the critical decision is not whether the operation of a particular factory or apartment house happens on the facts of the case to constitute a nuisance. It is whether the structure may be built at all.”¹⁹³

1. Government Regulation for Environmental Purposes

American state and local regulation of land uses had its genesis in prophylactic measures that would preclude the creation of private and public nuisances. The U.S. Supreme Court gave its imprimatur to comprehensive zoning in *Village of Euclid v. Ambler Realty Co.*,¹⁹⁴ which noted that land use regulation was justified by the increasing complexity of urban life. In restating that “[t]he police power has its foundation in that maxim of all well-ordered society which requires everyone to use his own property so as not to injure the equal enjoyment of others having equal rights of property.”¹⁹⁵ *Euclid* brought to the fore the extent to which governmental power should be used to achieve ends not traditionally associated with public or private nuisance.

Urban revitalization and the elimination of “blight”¹⁹⁶ have been justifications for the wholesale condemnation of land and subsequent retransfer for private redevelopment, a device approved by the Su-

¹⁸⁶ Adam Mossoff, *What Is Property? Putting the Pieces Back Together*, 45 ARIZ. L. REV. 371, 423 (2003)

¹⁸⁷ Eric R. Claeys, *Exclusion and Exclusivity in Gridlock*, 53 ARIZ. L. REV. 9, 19 (2011).

¹⁸⁸ *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992). See Part QQ, *supra*.

¹⁸⁹ See *Lucas*, 505 U.S. at 1025 n.12. “Since such a justification can be formulated in practically every case, this amounts to a test of whether the legislature has a stupid staff.” *Id.*

¹⁹⁰ See *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 (2005) (emphasizing that *Lucas* applies only to “regulations that completely deprive an owner of “all economically beneficial us[e]”). *Lingle* shortly thereafter stated that “[i]n the *Lucas* context, of course, the complete elimination of a property’s value is the determinative factor.” *Id.* at 539 (emphasis added). It is not clear if the latter statement is a rhetorical variation or represents a change in the Court’s view.

¹⁹¹ See, e.g., Brian E. Gray, *The Endangered Species Act: Reform or Refutation*, 13 HASTINGS W.-N.W. J. ENVTL. L. & POL’Y 1, 1 (2007) (observing that the ESA’s “overarching philosophy . . . was to protect and to repropagate endangered and threatened species no matter how dire their current existence and with only passing acknowledgement of the reliance interests of those whose past activities and future plans placed those species in peril”).

¹⁹² See, e.g., *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687 (1995) (interpreting the Endangered Species Act to forbid uses of land incidentally interfering with the habitat of a protected species).

¹⁹³ Richard A. Epstein, *The Social Consequences of Common Law Rules*, 95 HARV. L. REV. 1717, 1733 (1982) (citing *Euclid*, 272 U.S. 365 (1926)).

¹⁹⁴ 272 U.S. 365 (1926).

¹⁹⁵ *Slaughter-House Cases*, 83 U.S. 36, 62 (1872).

¹⁹⁶ See Wendell E. Pritchett, *The “Public Menace” of Blight: Urban Renewal and the Private Uses of Eminent Domain*, 21 YALE L. & POL’Y REV. 1 (2003) (explaining how urban “blight,” a very expansive term, often is equated to a public menace and used as a metaphor for disease in order to facilitate the public or private takeover of potentially desirable land).

preme Court in *Kelo*.¹⁹⁷ This author has criticized courts for not closely examining the facts of plausibly abusive condemnations in subsequent takings cases, as *Kelo* had promised.¹⁹⁸ *Kelo* involved efforts aimed at revitalizing rundown cities. However, environmental goals require—or are used as justification for—a coordinated reimagining of land uses well beyond anything found in blight or revitalization cases. Correspondingly, the potential for misguided or abusive arrogation of property rights is much greater.¹⁹⁹

In a sketch of the development of environmental law,²⁰⁰ Professor Robert Percival described a seminal decade: “In a remarkable burst of legislative activity during the 1970s, Congress enacted legislation creating the federal regulatory infrastructure that protects the environment today.”²⁰¹ He noted that these statutes greatly expanded federal agency regulatory responsibilities, provided for citizen suits “to force agencies to carry out their ambitious responsibilities,”²⁰² and that Congress also required detailed impact statements where actions might significantly affect the environment with the intent of making environmental awareness an integral part of every agency’s mission.²⁰³

States and localities also have shown an increasing proclivity to regulate the uses of land for environmental purposes. Early statewide legislation in Vermont,²⁰⁴ Florida,²⁰⁵ and Oregon²⁰⁶ was designed to preserve natural resources and amenities. The impetus for environmental regulation, at the national and local levels, is based on the inability of traditional nuisance law, with its “requirement that plaintiffs demonstrate individualized proof of causal injury . . . to respond to the multiple-source, multiple-pollutant problems that we encounter far more typically today.”²⁰⁷

Modern environmental law has sharpened our awareness of the rich sources of the common law of nuisance as well as its limitations. It largely has inverted Justice Scalia’s invocation of “background principles of the State’s law of property and nuisance” in *Lucas*,²⁰⁸ from constituting the unusual exception to owners’ rights of development, to serving as a focus for environmentalists’ litigation to prevent development.²⁰⁹ The relationship of protected property rights and environmental imperatives remains fluid.

2. The Precautionary Principle Meets Property Rights

The everyday maxim “better safe than sorry” is instantiated in the precautionary principle. “Avoid steps that will create a risk of harm. Until safety is established, be cautious; do not require unambiguous evidence.”²¹⁰ There is a vast and long-recognized difference between risks that are quantifiable and those that are not.²¹¹ In *The Black Swan*,²¹² Nassim Nicholas Taleb argued that we inherently underestimate the risk of high-impact, low-probability events in our daily lives.

¹⁹⁷ See *Kelo v. City of New London*, 545 U.S. 469 (2005) (holding condemnation for revitalization to ameliorate local economic distress not violative of the Public Use Clause).

¹⁹⁸ Steven J. Eagle, *Public Use in the Dirigiste Tradition: Private and Public Benefit in an Era of Agglomeration*, 38 FORDHAM URB. L.J. 1023 (2011).

¹⁹⁹ See *infra* Part 0 III.B. for discussion.

²⁰⁰ Percival, *supra* note 166 at 6-8.

²⁰¹ Percival, *supra* note 166 at 6.

²⁰² Percival, *supra* note 166 at 6.

²⁰³ Percival, *supra* note 166 at 6-7.

²⁰⁴ Vermont State Land Use and Development Act of 1970 (Act 250), 1969 Vt. Laws 250 (codified as amended at VT. STAT. ANN. tit. 10, §§ 6001-6108 (1993 & Supp. 1993)).

²⁰⁵ Florida Environmental Land and Water Management Act of 1972, 1972 Fla. Laws ch. 317 (codified as amended at FLA. STAT. ch. 380 (1993)).

²⁰⁶ Oregon State Land Use Act of 1973, 1973 Or. Laws 80 (codified as amended at OR. REV. STAT. § 197 (1993)).

²⁰⁷ Percival, *supra* note 166, at 5-6.

²⁰⁸ *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1029 (1992).

²⁰⁹ 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); Christine A. Klein, *The New Nuisance: An Antidote to Wetland Loss, Sprawl, and Global Warming*, 48 B.C. L. REV. 1155 (2007).

²¹⁰ Cass R. Sunstein, *Beyond the Precautionary Principle*, 151 U. PA. L. REV. 1003, 1003-04 (2003).

²¹¹ See, e.g., FRANK KNIGHT, RISK, UNCERTAINTY AND PROFIT (1921) (distinguishing “uncertainty” (unknown perils) from “risk” (quantifiable perils)). In a more popular formulation, former Secretary of Defense Donald Rumsfeld distinguished between “known unknowns” and “unknown unknowns.” See Philip Stephens, *The Unwitting Wisdom of Rumsfeld’s Unknowns*, FIN. TIMES, Dec. 12, 2003, at 19 (quoted in Michelle E. Boardman, *Known Unknowns: The Illusion of Terrorism Insurance*, 93 GEO. L.J. 783, 783 (2005)).

In a recent article,²¹³ Professor Daniel Farber noted that the precautionary principle is “controversial,” and pointed to three criticisms. First, it is “increasingly frustrating that there is no convergence either as to what [it] means, or as to what regions of action (environment, public health) it is supposed to apply.”²¹⁴ Second, applying the principle itself creates risks, because “risks are on all sides of the situation.”²¹⁵ Finally, Farber writes that “[Cass] Sunstein has argued that when the precautionary principle ‘seems to offer guidance, it is often because of the operation of probability neglect,’ meaning the cognitive incapacity of individuals to attend to the relevant risks.”²¹⁶

Professor Sunstein challenged the precautionary principle in a subsequent article,²¹⁷ “not because it leads in bad directions, but because, read for all that it is worth, it leads in no direction at all. The principle threatens to be paralyzing, forbidding regulation, inaction, and every step in between.”²¹⁸ While the precautionary principle is primarily an international law concept, it has found its way into United States domestic law.²¹⁹

According to Professor Sunstein, both President Reagan and President Obama “embraced” cost-benefit analysis and shared a belief that it might vindicate the taking of “aggressive regulatory steps.”²²⁰

Like other good things, precaution might be carried too far. To use a U.S. Supreme Court inverse condemnation analogy, the Court warned that regulatory takings claims based on development permit applications for “grandiose” projects would not ripen for federal judicial review until the developers proffered “less ambitious” plans.²²¹ In a balance of rights of individual property owners and state and local environmental initiatives, grandiosity might mark exaggerated notions of ecological danger. Similarly, political leaders who are environmental decision makers might be prone to grandiosity, as perhaps was the case with the proclamation that California global warming statutes should be those befitting a “nation state.”²²²

3. Restricting Construction Makes Housing Expensive

While stringent limitations on residential development are prompted by many environmental purposes, there is a tradeoff. After examining a nationwide index of directly measured land values by metropolitan areas, Professors David Albouy and Gabriel Ehrlich concluded that “[c]onstruction prices and geographic and regulatory constraints are shown to increase the cost of housing relative to land. On average, approximately one-third of housing costs are due to land, with an increasing share in higher-value areas, implying an elasticity of substitution between land and other inputs of about one-half.”²²³ Furthermore, “[t]he increase in housing costs associated with greater regulation appears to outweigh any benefits from improved quality-of-life.”²²⁴

The authors also examined disaggregated measures of regulation and geography, and found that “approval delays, supply restrictions, local political pressure, and state court involvement predict the lowest productivity levels, although our estimates are imprecise.”²²⁵ Professors Albouy and Ehrlich cited

²¹² TALEB, *supra* note 59.

²¹³ Daniel A. Farber, *Uncertainty*, 99 GEO. L.J. 901 (2011).

²¹⁴ Farber, *supra* note 213, at 917 (quoting Christopher D. Stone, *Is There a Precautionary Principle?*, 31 ENVTL. L. REP. 10790, 10791 (2001)).

²¹⁵ Farber, *supra* note 213, at 918 (quoting Cass Sunstein, *Probability Neglect: Emotions, Worst Cases, and the Law*, 112 YALE L.J. 61, 93 (2002)).

²¹⁶ Farber, *supra* note 213, at 919 (quoting Sunstein, *supra* note 215).

²¹⁷ Sunstein, *supra* note 210.

²¹⁸ Sunstein, *supra* note 210, at 1004.

²¹⁹ *See generally*, Kannan, *supra* note 154.

²²⁰ Cass A. Sunstein, *Climate Change: Lessons From Ronald Reagan*, N.Y. TIMES, NOV. 10, 2012, AT TK.

²²¹ *MacDonald, Sommer & Frates v. Yolo County*, 477 U.S. 340, 353 n.9 (1986) (the “[r]ejection of exceedingly grandiose development plans does not logically imply that less ambitious plans will receive similarly unfavorable reviews.”).

²²² *See supra* note 106 and accompanying text.

²²³ David Albouy & Gabriel Ehrlich, *Metropolitan Land Values and Housing Productivity*, NBER Working Paper No. w18110 *2 (May 2012) (abstract). Available at: <http://ssrn.com/abstract=2066406>

²²⁴ Albouy & Ehrlich, *supra* note 223, at *2.

²²⁵ Albouy & Ehrlich, *supra* note 223, at *2.

work by Professors Edward Glaeser and Joseph Gyourko demonstrating that housing and inferred land values differ most in heavily regulated environments,²²⁶ and by Glaeser, Gyourko, and Raven Saks that “the price of units in Manhattan multi-story buildings exceeds the marginal cost of producing them, attributing the difference to regulation. They find the cost of this regulatory tax is larger than the externality benefits they consider, mainly from preserving views.”²²⁷

Writing for a more general audience, Professor Glaeser stated that the basis for sustained regional growth is the personal satisfaction of residents and potential migrants.²²⁸ Census data from 2010 indicate that population is not moving to high-income areas, or to areas with high amenity values. Instead, Glaeser states, they are moving to areas where housing is cheap because building is abundant.²²⁹

A related element is that localities select revitalization projects, and their developers, through less than transparent processes subject to favoritism and abuse.²³⁰

4. The Sweeping Scope of Potential Regulation

An example of the sheer breadth of environmental laws is the New York Environmental Conservation Law,²³¹ which sets forth its purpose

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.²³²

Courts have interpreted the statute as covering such disparate topics as the visual impact of a proposed project,²³³ and, in *Chinese Staff and Workers Association v. City of New York*,²³⁴ “whether the introduction of luxury housing into the Chinatown community would accelerate the displacement of local low-income residents and businesses or alter the character of the community.”²³⁵

These decisions support the view that New York’s State Environmental Quality Review Act (“SEQRA”) mandates review of “virtually all discretionary acts taken by State agencies and local governments in New York.”²³⁶ These discretionary acts include not only those undertaken by state agencies or otherwise with state funds, but also agency approvals of private projects.²³⁷ The New York Court of Appeals noted in *Chinese Staff* that the “potential acceleration of the displacement of local residents and businesses is a secondary long-term effect on population patterns, community goals, and neighborhood character such that [SEQRA] requires these impacts on the environment to be considered in an environmental analysis.”²³⁸

Looking back at SEQRA in operation, Professor Stewart Sterk observed:

Although New York courts, in dealing with SEQRA litigation, have generally acted sensibly, the social cost of SEQRA has been enormous. My conclusion is that the environmental impact statement requirement should

²²⁶ Albouy & Ehrlich, *supra* note 223, at *3 (discussing Edward L. Glaeser & Joseph Gyourko, *The Impact of Building Restrictions on Housing Affordability*, 9 FED. RES. BK. N.Y. ECON. POL’Y REV. 21-29 (2003)).

²²⁷ Albouy & Ehrlich, *supra* note 223, at *3 (discussing Edward L. Glaeser, Joseph Gyourko & Raven Saks, *Why is Manhattan so Expensive? Regulation and the Rise in Housing Prices*, 48 J. L. & ECON 331, 369 (2005)).

²²⁸ Edward L. Glaeser, *What Democrats Might Learn From the Census*, N.Y. Times Economix Blog (Jan. 11, 2011, 6:00 AM), <http://economix.blogs.nytimes.com/2011/01/11/what-democrats-might-learn-from-the-census/> (referring to data from the 2010 Census, and noting higher wages, quality of life, and “affordable housing, which typically comes from abundant supply” as the principal factors).

²²⁹ Glaeser, *supra* note 228.

²³⁰ See *infra* Part III.C. for discussion.

²³¹ N.Y. ENVTL. CONSERV. LAW art. 8 (McKinney 2012).

²³² *Id.* at § 8-0101. Purpose.

²³³ *Lucas v. Planning Bd. of Town of LaGrange*, 7 F.Supp. 2d 310 (S.D.N.Y. 1998).

²³⁴ 502 N.E.2d 176 (N.Y. 1986).

²³⁵ *Id.* at 178.

²³⁶ John F. Shea, *Environmental Law and Regulation in New York*, 9 FORDHAM ENVTL. L. REV. 223, 226 (1997).

²³⁷ Shea, *supra* note 236.

²³⁸ *Id.* at 180-81.

be abandoned for ordinary zoning questions, perhaps to be replaced by a tax on development that would be used to fund a more substantive environmental conservation effort. Especially in New York, where voters recently rejected an environmental bond issue, this change might prove a far more effective way to combat threats to the environment.²³⁹

III. MANDATING A SMARTER FUTURE

Broadly speaking, attempts to shape land use patterns so as to enhance environmental goals could take one of two forms. The first method is requiring landowners to internalize additional burdens resulting from their chosen lifestyles, such as through the use of carbon taxes and fees for extra costs of public infrastructure, such as additional road and utility costs for low-density neighborhoods. The second is a command-and-control approach that requires owners to adhere to proscribed land use templates. This Part illustrates that advocates of “sustainable” development trend towards the latter approach, which might result in substantial diminution in private property rights.

A. *Smart Growth and Suburban “Sprawl”*

Seizing the rhetorical high ground, opponents of low-density suburban growth have invoked the image of sloth in adopting the label “sprawl” to describe it. “Sprawl has been defined as ‘low-density development on the edges of cities and towns that is poorly planned, land-consumptive, automobile-dependent [and] designed without regard to its surroundings.’”²⁴⁰

Leading opponents have summarized its detriments:

Sprawl has engendered six major crises for America's major metropolitan regions. These crises are: (1) central city and first- and secondring suburban decline; (2) environmental degradation through loss of wetlands, sensitive lands, and air and water quality degradation; (3) massive gasoline energy overutilization; (4) fiscal insolvency, infrastructure deficiencies, and taxpayer revolts; (5) devastating agricultural land conversion; and (6) housing inaffordability.²⁴¹

The problem is not growth *per se*, but dysfunctional growth. The solution is not no growth, but smart growth achieved by directing development back to central cities and other areas that yield sustainable communities. Tax incentives, brownfield redevelopment, elimination of sprawl-enhancing subsidies, urban growth boundaries, transferable development rights, and many other initiatives comprise the smart growth agenda.²⁴²

On the other hand, detractors see “sprawl” as a “clever and effective euphemism” to denigrate suburbanization, the affirmative choice of many millions of Americans.²⁴³ As alternatives to rigid regulation, cities and suburbs could permit developers of large private new communities to subdivide them in ways that might attract new residents. Low-density development might reasonably be charged impact fees to force them to internalize the costs of additional roads, utilities, and other infrastructure. Likewise, carbon taxes could offset contributions to climate change. However, smart growth might result in the prohibition of low-density development, or in the imposition of convoluted penalties in the form of regulatory barriers upon it.²⁴⁴

²³⁹ Stewart E. Sterk, *Environmental Review in the Land Use Process: New York's Experience with SEQRA*, 13 CARDOZO L. REV. 2041, 2042 (1992).

²⁴⁰ Lincoln Institute of Public Policy, *Alternatives to Sprawl* 4 (quoting Richard Moe) (1995).

²⁴¹ Robert H. Freilich & Bruce G. Peshoff, *The Social Costs of Sprawl*, 29 URB. LAW. 183, 184 (1997).

²⁴² Timothy J. Dowling, *Reflections on Urban Sprawl, Smart Growth, and the Fifth Amendment*, 148 U. PA. L. REV. 873, 874-75 (2000).

²⁴³ Clint Bolick, *Subverting the American Dream: Government Dictated “Smart Growth” is Unwise and Unconstitutional*, 148 U. PA. L. REV. 859, 859 (2000).

²⁴⁴ See, e.g., Nichols, *supra* note 120 at 188-89 (stating that there are “no penalties” for regions not meeting California Sustainable Communities Strategy and Climate Protection Act goals, but rather that developers who comply get “incentives” in the form of “relief from certain environmental review requirements”).

The aspect of climate change resulting in rising sea levels has led to intensifying demand that development patterns be reshaped. “No matter how stringent, no matter how well enforced, no matter how costly, building codes cannot eliminate disaster risk.”²⁴⁵ Furthermore, “[w]hile Smart Growth has great potential for making our communities more livable, more cost effective, and more environmentally sound, ‘Smart Growth in dumb places’—those that are particularly disaster prone—is the antithesis of true sustainability.”²⁴⁶

Professor Peter Byrne recently has gathered evidence of anticipated sea level increases internationally and along the coasts of the United States.²⁴⁷ “[s]ea-level rise will require many new initiatives in land use regulation to adapt to unprecedented climate conditions. Such government actions will prompt regulatory and other takings claims, and also will be shaped by apprehension of such claims.”²⁴⁸

Along a “hotspot” along the U.S. East Coast, the increase might be “dramatically higher.”²⁴⁹ “New York City estimates that with rapid ice melting, it could face sea-level rise of more than seven meters.”²⁵⁰ Professor Byrne educates:

The now inevitable rise in sea levels poses new and difficult challenges to property rights and land-use regulation. Inundation and storm surges will physically destroy private and public property at great loss. But perhaps more fundamentally, the threats of such losses and the predictable efforts to contain them will call for new approaches to land-use regulation and strain traditional understandings of property rights in land. Neither the common law nor traditional notions of zoning contain legal resources adequate to cope with the economic, environmental, and human risks that sea-level rise will generate. New forms of regulation and shifts in the content of common law rules will generate novel claims of regulatory takings, confronting courts with puzzling questions of fundamental rights under unprecedented climatic conditions.²⁵¹

The extensive flooding and loss of life in the Northeast resulting from the Hurricane Sandy, in October 2012, exacerbate these concerns and pose new questions about U.S. Government policies that subsidize the repeated rebuilding of homes, businesses, and infrastructure in flood-prone areas.²⁵² Of course, some bristle at such a reexamination. As the president of Tulane University retorted: “Since when did our country develop a standard that we abandon places prone to repeat disasters?”²⁵³

Undoubtedly, there will be changes in regulations, and litigation on whether individuals have a property right in rebuilding, and in their expectations of continued government flood insurance.

More fundamentally, how should the cost of protecting landowners from increased environmental hazards be shared? If there is to be a policy of retreat from fragile and dangerous areas, should that give rise to valid takings claims?

1. Transferrable Development Rights and Their Infirmities

²⁴⁵ Lisa Grow Sun, *Smart Growth in Dumb Places: Sustainability, Disaster, and the Future of the American City*, *101___ BYU L. REV. ____ (forthcoming, 20TK) (available at <http://ssrn.com/abstract=1918386>).

²⁴⁶ Sun, *supra* note 245, at *103.

²⁴⁷ J. Peter Byrne, *The Cathedral Engulfed: Sea-Level Rise, Property Rights, and Time*, 73 LA. L. REV. 69, 73-76 (2012) (noting aggregate data suggesting a world-wide increase of between 0.59 and almost 2 meters; along the U.S. Pacific and Gulf Coasts of about 1 to 1.4 meters).

²⁴⁸ J. Peter Byrne, *The Cathedral Engulfed: Sea-Level Rise, Property Rights, and Time*, 73 LA. L. REV. 69 (2012).

²⁴⁹ Byrne, *supra* note 247, at 75.

²⁵⁰ Byrne, *supra* note 247, at 75 (citing N.Y.C. Panel on Climate Change, *Climate Risk Information* 53 (2009), available at http://www.nyc.gov/html/om/pdf/2009/NPCC_CRI.pdf).

²⁵¹ Byrne, *supra* note 247, at 69.

²⁵² See, e.g., Justin Gillis & Felicity Barringer, *As Coasts Regild and U.S. Pays, Repeatedly, the Critics Ask Why*, N.Y. TIMES Nov. 18, 2012 at **TK**; Ginia Bellafante, *Paying to Rebuild, and Rebuild Again*, N.Y. TIMES Nov. 16, 2012 at **TK**; Christopher Rhoads & Leslie Scism, *The Future Question for Storm Victims: Can the Past Be Rebuilt?*, WALL ST. J., Nov. 16, 2012 at **TK**; Orrin H. Pilkey, *We Need to Retreat From the Beach*, N.Y. TIMES, Nov. 14, 2012 at **TK**.

²⁵³ Scott Cowen, Letter to the Editors, N.Y. TIMES, (Nov. 23, 2012) at **TK** (“In every case, community feeling and the attachment to home has trumped scientific facts and urban planning.”).

Transferable Development Rights (“TDRs”) permit the recipient to develop a parcel more intensively than regulations otherwise would permit, and are provided as a *quid pro quo* for stringent development restrictions or prohibitions applied on the recipient’s other land.²⁵⁴ While an early New York Court of Appeals decision seemed skeptical about the legality of TDRs,²⁵⁵ the device won favor in the U.S. Supreme Court’s *Penn Central* decision.²⁵⁶ Justice Brennan concluded that TDRs granted to the railroad constituted “mitigation” of the impact of the City’s regulation, as opposed to compensation for a taking.²⁵⁷

Subsequently, in *Suitum v. Tahoe Regional Planning Agency*,²⁵⁸ a regulation left the owner with no economically viable use of her land. She was awarded TDRs, which she asserted did not constitute a “use” under *Lucas*.²⁵⁹ The Court ignored the issue and simply reversed the Ninth Circuit’s determination that the value of the TDRs was unknown, so that her claim was unripe.²⁶⁰ Professor Richard Lazarus, who argued for TRPA, later wrote that relevancy of the value of the TDRs was “far more significant than the ripeness ‘finality’ issue because of its portent for the reach of *Lucas* and the use of techniques such as TDRs.”²⁶¹

Since *Penn Central*, TDRs have been used as a tool for government agencies to protect environmentally valuable property by restricting its development and by awarding owners rights that could be sold to developers of less environmentally sensitive land.²⁶² The growth of TDRs has led Professor Vicki Been and John Infranca to suggest²⁶³ that they no longer should be understood “just as a creative mechanism to soften the effect of rigid zoning restrictions, but should be recognized as well as a tool land use decision makers can use in place of, or in tandem with, upzonings, bonuses, and other devices for increasing density.”²⁶⁴

Another effect of TDRs is to impose costs on developers, assertedly to “help internalize externalities associated with land development.”²⁶⁵ Perhaps more aggressively, possession of TDRs has been advocated “as a basis for standing to challenging agency implementation of other environmental protection legislation.”²⁶⁶

Conventional thinking casts TDRs as a benign tool that helps localities protect resources while providing owners with offsetting benefits. However, such analyses ignore the interests of third parties, the owners of land in the receiving area, where TDRs may be deployed. It seems clear that if more intense uses should be permitted under the police power in the receiving zone, that should inure to the benefit of landowners there and should not be set aside for those who were awarded TDR “currency” by dint of stringent restrictions on their land in sending zones. The effect, as this author has noted elsewhere, is that “government confiscates development rights through the use of overly-stringent zoning. The rights are then repackaged and transferred to others.”²⁶⁷ In effect, development potential that is permissible under

²⁵⁴ See, e.g., Julian Conrad Juergensmeyer, James C. Nicholas & Brian D. Leebrick, *Transferable Development Rights and Alternatives After Suitum*, 30 URB. L. 441, 441 n.1 (“A TDR program is a growth management tool in which the development potential from sensitive lands is transferred to nonsensitive lands through private market transactions.”).

²⁵⁵ Fred F. French Investing Co., Inc. v. City of New York, 350 N.E.2d 381 (N.Y. 1976).

²⁵⁶ Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104 (1978).

²⁵⁷ *Id.* at 137.

²⁵⁸ 520 U.S. 725 (1997).

²⁵⁹ *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992).

²⁶⁰ *Suitum*, 520 U.S. at 733.

²⁶¹ Richard J. Lazarus, *The Measure of A Justice: Justice Scalia and the Faltering of the Property Rights Movement Within the Supreme Court*, 57 HASTINGS L.J. 759, 814 (2006).

²⁶² See, e.g., Gregory M. Parkhurst & Jason F. Shogren, *Evaluating Incentive Mechanisms for Conserving Habitat*, 43 NAT. RESOURCES J. 1093, 1110 (2003).

²⁶³ Vicki Been & John Infranca, *Transferable Development Rights Programs as “Post” Zoning*, ___ BROOK. L. REV. ___ (forthcoming 2013), available at <http://ssrn.com/abstract=2144808>.

²⁶⁴ Been & Infranca, *supra* note 263, at *1 (abstract).

²⁶⁵ Shi-Ling Hsu, *A Two-Dimensional Framework for Analyzing Property Rights Regimes*, 36 U.C. DAVIS L. REV. 813, 880 (2003). “Because a developed parcel imposes environmental costs that an undeveloped parcel does not, the requirement of obtaining sufficient TDRs effectively imposes a cost at the margins on development, a cost that is not realized if the right to develop comes fully attached to land ownership.” *Id.*

²⁶⁶ Danieli Evans, *Concrete Private Interest in Regulatory Enforcement: Tradable Environmental Resource Rights As A Basis for Standing*, 29 YALE J. REG. 201, 237 (2012).

²⁶⁷ Steven J. Eagle, *Environmental Amenities, Private Property, and Public Policy*, 44 NAT. RESOURCES J. 425, 444 (2004).

the police power is arrogated by the government without compensation, and transferred to others in amelioration of their potential takings claims.

If the amount of development in the receiving zone must be limited to only a few larger structures, the analysis is unchanged. TDRs should be awarded not to third parties, but to landowners in the receiving zone. They could sell those rights to developers, who would have to acquire a specified number of them to be permitted to designate a parcel for higher density use.²⁶⁸

This “rob Peter to pay Paul” infirmity with TDRs, together with other problems such as uncertainty in their possible market value, makes their expansion a threat to property rights, even to help achieve laudable environmental goals.

2. Generic Police Power Ordinances

Another substantial problem with the use of augmented land use regulation for environmental reasons is the subordination of specific zoning procedures to a nebulous view of the police power.

In *New Jersey Shore Builders Association v. Township of Jackson*,²⁶⁹ developers challenged a local ordinance requiring property owners to replace most trees that they remove or, if that is not feasible, to make a payment into a fund dedicated to the planting of trees and shrubs on public property.²⁷⁰ The builders’ expert asserted that “the ordinance does not promote a property forest management plan; the ordinance is inconsistent, overly vague, and imprecise; and the ordinance unfairly distinguishes between residential lots and commercial lots, which does not further its stated purpose.”²⁷¹ The township’s expert stated that the ordinance was modeled after a “no net loss” policy designed for tree removal from state-owned land, and that it was intended to further “the reforestation or reestablishment of the tree canopy with[in the] Township as a whole and not in any one particular area.”²⁷²

The trial judge found the Township’s argument that the ordinance would help maintain the biomass within its borders “tenuous at best,” and that utilization of the fund to plant trees on public property only, did not “bear a real and substantial relationship to the purposes of the Ordinance.”²⁷³

The New Jersey Supreme Court rejected the trial court’s application of the state’s Municipal Land Use Law (“MLUL”).

Although it touches on the use of land, the ordinance is not a planning or zoning initiative that necessarily implicates the MLUL. Indeed, there are numerous ordinances, for example, health codes, environmental regulations, building codes, and laws regulating the operation of particular businesses, that touch on the use of land, but are not within the planning and zoning concerns of the MLUL. Those ordinances are enacted pursuant to the general police power and apply to everyone. That is the nature of the tree removal ordinance at issue here: it is a generic environmental regulation, and not a planning or zoning initiative.²⁷⁴

The state supreme court added that the ordinance was based on the police power, and passed muster under the rational basis standard. “The police power does not have its genesis in a written constitution. It is an essential element of the social compact, an attribute of sovereignty itself, possessed by the states before the adoption of the Federal Constitution.”²⁷⁵ In a subsequent case involving an election law challenge,²⁷⁶ the court quoted *Shore Builders* in declaiming the “plenary” powers of the state legislature to

²⁶⁸ See *Barancik v. County of Marin*, 872 F.2d 834 (9th Cir. 1989).

²⁶⁹ 970 A.2d 992 (N.J. 2009).

²⁷⁰ *Id.* at 995.

²⁷¹ *Id.* at 997.

²⁷² *Id.* at 997.

²⁷³ *Id.* at 1000.

²⁷⁴ *Id.* at 1002.

²⁷⁵ *New Jersey Shore Builders Ass’n v. Township of Jackson*, 970 A.2d 992, 1001 (N.J. 2009) (quoting *Roselle v. Wright*, 122 A.2d 506, 510 (N.J. 1956)).

²⁷⁶ *In re Contest of November 8, 2011 Gen. Election of Off. of New Jersey Gen. Assembly*, 40 A.3d 684, 701 (N.J. 2012) (challenging one-year durational residency requirement for candidate for state general assemblies).

promote the “public health, safety, welfare, and morals.”²⁷⁷ It also referred to the power as “an essential element of the social compact.”²⁷⁸

In *Shore Builders*, the court held that dedicating land for the provision of biomass is not a land use issue, but rather a police power issue. This is not an outlier position, since the New Jersey Supreme Court has made similar sweeping declarations about zoning for affordable housing,²⁷⁹ and the presumed servitude on all private property for the free-expression rights of others.²⁸⁰ The ruling does, however, point to a tendency subordinate other interests in the face of invoked environmental needs.

B. Land Development Exactions

1. The Increasing Use of Development Exactions

Exactions on development are fees, dedications of land, or other obligations that are imposed as conditions for government approval of real estate development applications.²⁸¹ At first, exactions of property related to the requirement that developers construct roads, schools, or similar facilities within subdivisions to serve their residents.²⁸² Over time, “in lieu” fees were accepted as substitutes, which facilitated developer contributions to off-site improvements, such as feeder roads, sewers, or larger schools serving several new subdivisions.²⁸³ The process “combined the local government’s regulatory powers with its duty to provide public services. Termed ‘regulation for revenue’ by modern observers, this methodology blended land use regulation with revenue-enhancing or cost-shifting objectives to establish a local governmental practice known as imposing “development exactions.”²⁸⁴

Development exactions are not insubstantial. A 2006 study by Professor Jennifer Evans-Cowley showed that the average impact fee for a single family home the previous year was \$7,669, with fees ranging the \$446 road impact fee in DuPage County, Illinois, to the \$41,108 fee for roads, water, sewer, drainage, parks, libraries, fire, police, general government, and schools, in Gilroy, California.²⁸⁵ Exactions for the provision of community public goods raise substantial issues of intergenerational fairness, since those who owned their homes prior to the fee imposition were subsidized by the real estate taxes paid by local residents who came before them. As noted in Professor Robert Ellickson’s classic study,²⁸⁶ existing homeowners in homogenous suburbs can use their majoritarian power so that “the political process is stacked against those who benefit from new housing construction.”²⁸⁷

2. The Supreme Court’s Exactions Jurisprudence

In *Lingle v. Chevron U.S.A., Inc.*,²⁸⁸ the Supreme Court recapitulated its regulatory takings doctrine and the primacy of *Penn Central*.²⁸⁹ However, it singled out for separate treatment “the special context of land use exactions.”²⁹⁰

²⁷⁷ *Id.* at 170 (quoting *Shore Builders*, 970 A.2d at 1001).

²⁷⁸ *Id.* (quoting *Roselle v. Wright*, 122 A.2d 506, 510 (N.J. 1956)).

²⁷⁹ See *Southern Burlington County NAACP v. Township of Mount Laurel*, 456 A.2d 390 (N.J. 1983) (Mount Laurel II).

²⁸⁰ See *New Jersey Coalition Against War in the Middle East v. J.M.B. Realty Corp.*, 650 A.2d 757 (N.J. 1994).

²⁸¹ See generally, Ronald H. Rosenberg, *The Changing Culture of American Land Use Regulation: Paying for Growth With Impact Fees*, 59 SMU L. REV. 177, 183-204 (2006) (discussing origins and growth of development regulation and exactions).

²⁸² See, e.g., R. Marlin Smith, *From Subdivision Improvement Requirements to Community Benefit Assessments and Linkage Payments: A Brief History of Land Development Exactions*, 50 L. & CONTEMP. PROBS. 5 (Winter 1987).

²⁸³ See Rosenberg, *supra* note 281, at 197-204.

²⁸⁴ Rosenberg, *supra* note 281, at 192 (citing generally ALAN A. ALTSHULER & JOSÉ A. GÓMEZ-IBÁÑEZ, *REGULATION FOR REVENUE: THE POLITICAL ECONOMY OF LAND USE EXACTIONS* (1993)).

²⁸⁵ Jennifer Evans-Cowley, *Development Exactions: Process and Planning Issues 2* (Lincoln Inst. of Land Policy, Working Paper WP06JEC1, 2006), available at www.lincolinst.edu/pubs/dl/1177_Evans%20Cowley%20Final.pdf.

²⁸⁶ Robert C. Ellickson, *Suburban Growth Controls: An Economic and Legal Analysis*, 86 YALE L.J. 385 (1977).

²⁸⁷ Ellickson, *supra* note 286, at 407.

²⁸⁸ 544 U.S. 528 (2005).

²⁸⁹ *Id.* at 538 (citing *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104 (1978) and *Palazzolo v. Rhode Island*, 533 U.S. 606, 636 (2001) (O’Connor, J., concurring) (declaring *Penn Central* the Court’s regulatory takings “polestar”).

As the Court explained in *Dolan*, these cases involve a special application of the “doctrine of ‘unconstitutional conditions,’” which provides that “the government may not require a person to give up a constitutional right—here the right to receive just compensation when property is taken for a public use—in exchange for a discretionary benefit conferred by the government where the benefit has little or no relationship to the property.”²⁹¹

The Supreme Court held, in *Nollan v. California Coastal Commission*,²⁹² that there must be an “essential nexus” between an exaction as a condition of development approval and advancement of police powers conferred on the agency.²⁹³ In *Dolan v. City of Tigard*,²⁹⁴ it explained that an exaction must be justified by an “individualized determination” that there is a “rough proportionality” that “the required dedication is related both in nature and extent to the impact of the proposed development.”²⁹⁵

Professor Marc Poirier wrote that “essential nexus” and “rough proportionality” are “hardly beacons of clarity,”²⁹⁶ and Professor Timothy Mulvaney has amplified Poirier’s observation with a list of possible meanings of those statements.²⁹⁷

Although subsequent cases imply that *Nollan-Dolan* exactions must be of interests in real property,²⁹⁸ the Supreme Court never has stated that explicitly, and other courts have split on the issue.²⁹⁹ Since *Dolan* was decided in 2004, the Supreme Court has declined to explain whether exaction takings might be found in instances when development permits are denied on the basis of developers’ refusal to consent to exactions, and whether the concept of exactions applies to required proffers of cash, personal property, or services, in addition to interests in land. In October 2012, however, the Court granted review in a case presenting those issues, *Koontz v. St. Johns River Water Management District*.³⁰⁰

To the extent that *Koontz* might broaden exactions within the ambit of *Nollan-Dolan* beyond dedications of land to which the developer agrees, it is apt to have a very substantial impact on the land use planning process. “Zoning for dollars” has long been the name of the game,³⁰¹ and cities still regard development exactions as “where we print the money.”³⁰²

²⁹⁰ *Id.* at 538.

²⁹¹ *Id.* at 547 (quoting *Dolan v. City of Tigard*, 512 U.S. 374, 385 (1994)).

²⁹² 483 U.S. 825 (1987).

²⁹³ *Id.* at 837.

²⁹⁴ 512 U.S. 374 (1994).

²⁹⁵ *Id.* at 391.

²⁹⁶ Marc R. Poirier, *The Virtue of Vagueness in Takings Doctrine*, 24 CARDOZO L. REV. 93, 107 n.55 (2002).

²⁹⁷ Timothy M. Mulvaney, *Exactions for the Future*, 64 BAYLOR L. REV. 511, 519 n.36 (2012).

There are at least five values that could be relevant: (1) the public cost of those harms attributable to the proposed development; (2) the cost of the burden borne by the applicant in reducing those public costs; (3) the expected reduction in those public costs resulting from the permit conditions; (4) the market value of the “property” acquired through the permit condition; and (5) the financial benefits the applicant will realize from the permit.

Id.

²⁹⁸ See *City of Monterey v. Del Monte Dunes at Monterey, Ltd.*, 526 U.S. 687 (1999) “[W]e have not extended the rough-proportionality test of *Dolan* beyond ... land-use decisions It was not designed to address, and is not readily applicable to, the much different questions arising where, as here, the landowner’s challenge is based not on excessive exactions but on denial of development.” *Id.* at 702-03.

²⁹⁹ See, e.g., *Bonnie Briar Syndicate, Inc. v. Town of Mamaroneck*, 721 N.E.2d 971 (N.Y. 1999) (*Dolan* limited to real property interests); *Ehrlich v. City of Culver City*, 911 P.2d 429, 444 (Cal. 1996) (*Dolan* applicable to cash exactions).

³⁰⁰ *St. Johns River Water Management District v. Koontz*, 77 So.3d 1220 (Fla. 2011), cert. granted sub nom *Koontz v. St. Johns River Water Management District*, ___ S.Ct. ___, 2012 WL 1966013 (Oct. 5, 2012) (No. 11-1447). The questions presented are:

1. Whether the government can be held liable for a taking when it refuses to issue a land-use permit on the sole basis that the permit applicant did not accede to a permit condition that, if applied, would violate the essential nexus and rough proportionality tests set out in *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987), and *Dolan v. City of Tigard*, 512 U.S. 374 (1994); and 2. Whether the nexus and proportionality tests set out in *Nollan* and *Dolan* apply to a land-use exaction that takes the form of a government demand that a permit applicant dedicate money, services, labor, or any other type of personal property to a public use.

³⁰¹ See Jerold S. Kayden, *Zoning For Dollars: New Rules for an Old Game? Comments on the Municipal Art Society and Nollan Cases*, 39 WASH. U. J. URB. & CONTEMP. L. 3 (1991) (“[C]ities grant private real estate developers the legal right to disregard zoning restrictions in return for their voluntary agreement to provide urban design features such as plazas, atriums, and parks, and social facilities and services such as affordable housing, day care centers, and job training.”).

³⁰² See, Aaron J. Yowell, Note, *That’s Where We Print the Money: Trading Increased Density for Public Amenities*, 15 N.Y.U. ENVTL. L.J. 493 (2007).

3. Exactions for the Ecological Future

The vague definition of development exactions, together with their pervasive use in traditional infrastructure funding, lead to the issue of how development exactions might be employed for dealing with environmental issues, notably climate change.

“Contingent exactions,” a concept recently suggested in Professor Mulvaney’s *Exactions for the Future*,³⁰³ would facilitate the “reasonable implementation of exactions aimed at anticipated, future harms while reducing some takings liability concerns.”³⁰⁴ “From the developer’s perspective,” Professor Mulvaney adds, “any uncertainty regarding land assembly would be eliminated,” with current use of the land being “impaired” only by the “common law doctrine of waste.”³⁰⁵

Furthermore, the developer would confer an interest in the “relevant segment of land that gives the state possession of that land only if and when specified triggering events occur.”³⁰⁶ Only then “would the developer be charged with removing any structures or otherwise preparing the land for the state’s possession.”³⁰⁷

There are two possible downsides to contingent exactions that Professor Mulvaney noted. First, court decisions as to whether owners of possessory interests commit common law waste against remainder owners tends to defer to possessors where their interests will be of long future duration. Therefore, the potential that the contingency triggering the state’s remainder coming into possession might be delayed for a long period would permit the present interest holder to “spoil the property.”³⁰⁸

The second downside, “[a]rguably more disconcerting” than the first, is the possibility that the state will fail to enforce its rights.³⁰⁹ By the time the triggering event occurs, the advantage of receiving the development permit might have “faded into the past” in the owner’s mind. The owner might, therefore, feel a “new” uncompensated loss, and the government, out of concern regarding the constituent’s “immediate economic plight,” might willingly “subordinate its position as the future interest holder.”³¹⁰

4. Contingent Exactions are Unworkable

Professor Mulvaney stated that his intent was to suggest a broad approach to exactions in the face of uncertainty and to highlight its benefits, while leaving the details for future scholarship.³¹¹ Thus, the comments here are intended to explore its implications. The central problem with the “contingent exaction” is that its implementation would be to eviscerate owners’ use rights, if indeed potential owners would be able to obtain title at all.

One problem concerns the relation of the land that would be subject to a contingent easement and the rest of the owner’s parcel. Extrapolating from *Nollan*, where the exaction was of an easement of way along the shore behind a house,³¹² and from *Dolan*, where the easement was along a creek behind petitioners’ hardware store.³¹³ Professor Mulvaney wrote that “[a]ny current use of that strip would only come with the risk that he may need to abandon that use upon the triggering events.”³¹⁴

However, given the multiplicity of future concerns that might cause a locality to demand a contingent exaction, and the physical contours and other characteristics of land belonging to the owner and

³⁰³ Mulvaney, *supra* note 297.

³⁰⁴ Mulvaney, *supra* note 297, at 556.

³⁰⁵ Mulvaney, *supra* note 297, at 559.

³⁰⁶ Mulvaney, *supra* note 297, at 556.

³⁰⁷ Mulvaney, *supra* note 297, at 559.

³⁰⁸ Mulvaney, *supra* note 297, at 563-64.

³⁰⁹ Mulvaney, *supra* note 297, at 565.

³¹⁰ Mulvaney, *supra* note 297, at 565-66.

³¹¹ Mulvaney, *supra* note 297, at 556.

³¹² *Nollan v. Cal. Coastal. Comm’n*, 483 U.S. 825 (1987).

³¹³ *Dolan v. City of Tigard*, 512 U.S. 374 (1994).

³¹⁴ Mulvaney, *supra* note 297, at 559.

others in the vicinity, it might well be that the contingent exaction would involve land bearing a different relation to the parcel than a strip along its far edge. For instance, the “strip” might go through the center of a parcel used for a shopping center or office building. Neither the owner, nor potential mortgagees or long-term lessees, would willingly assume the risks entailed in erecting, financing, and using such a structure to begin with. It is for this reason that the American Land Title Association (“ALTA”) offers a policy endorsement that indemnifies the holder from losses occasioned by the failure of parcels that are separately deeded, but unified in use, to have contiguous boundaries.³¹⁵ In eminent domain actions where the government has taken an easement, just compensation for the “severance damages” to the rest of an owner’s parcel often is substantial.³¹⁶

In short, the possibility that intervening events, statutes, or court interpretations might trigger contingent environmental rights makes the land subject to such rights largely undevelopable. If might be, of course, that this was the original intent. In such an instance, however, a conservation easement or similar servitude would suffice.

C. *Green Redevelopment and Crony Capitalism*

1. The Nature of Crony Capitalism

Extensive government involvement in land development often is problematic. As this author has discussed elsewhere,³¹⁷ government partnerships with private developers can lead to “crony capitalism.” As Professor John Coffee put it,

This is the dark side of concentrated ownership; put simply, the separation of cash-flow rights from voting rights can serve as a means by which those controlling the public sector can extend their control over the private sector. At a minimum, the prospect of crony capitalism—that is, closely interlocked political and economic leaderships, each reciprocally assisting the other—ensures that concentrated owners will need to become deeply involved in government in order to protect their positions from existing rivals, new entrants, and political sycophants.³¹⁸

Urban renewal has been an archetypical situation in which crony capitalism occurs.³¹⁹ Public officials want to utilize the expertise of urban redevelopers since the specialized information that they acquire in their work is itself valuable property. They also value discretion and loyalty, since public officials loath becoming embarrassed.³²⁰ Redevelopers, in turn, need government approvals and value the inside track to construct projects that they identify as needed.³²¹ Thus, developers contribute to campaigns and work in tandem with officials with whom they have formed a relationship.³²² In some foreign nations, problems of illegality and corruption are significantly more pronounced.³²³ Nevertheless, the relationship of crony ca-

³¹⁵ See also, e.g., Tonya Mason, *New Commercial transactions Endorsements*, Investors Title Co. (undated) (discussing ALTA forms adopted since October 2003). “[T]he ALTA 19 endorsement provides insurance against loss or damage the insured may sustain due to any gaps, strips or gores separating any of the contiguous boundary lines as described in the ALTA 19 endorsement. The ALTA 19 endorsement may be used with either a Loan Policy or an Owner’s Policy for commercial or residential transactions.” *Id.*

³¹⁶ See generally, 4A NICHOLS ON EMINENT DOMAIN § 14.02 (2012). See also, e.g., *Rogers v United States*, 96 Fed. Cl. 472 (2011).

³¹⁷ Eagle, *supra* note 198.

³¹⁸ John C. Coffee, Jr., *The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and Control*, 111 YALE L.J. 1, 72 (2001).

³¹⁹ See David J. Barron, *Keith and the Good City*, 45 U. CAL. DAVIS L. REV. 1945, 1946 (2012). “On one standard account, cities were not democratic agents during urban renewal. Instead, they were the staging ground for a peculiarly stark kind of crony capitalism. Powerful interests captured city hall and remade the urban environment for their own gain, even as they touted their desire to serve the public interest.” *Id.*

³²⁰ Eagle, *supra* note 198, at 1078-79.

³²¹ See Eagle, *supra* note 198, at 1080-81.

³²² See Eagle, *supra* note 198, at 1080-81.

³²³ See Benjamin J. Richardson, *Is East Asia Industrializing Too Quickly? Environmental Regulation in Its Special Economic Zones*, 22 UCLA P. BASIN L.J. 150, 183-84 (2004) (noting that, in Malaysia and Indonesia, authoritarian governance has “engendered destructive crony capitalism,” and that environmental governance remains weak as “there are few formal legal mechanisms by which government-developer alliances can be challenged by citizens.”).

pitalism and development, including expansive green development, is a significant problem in the United States.³²⁴

2. Local Redevelopment Agencies

Developments in California over the past century illustrate disputes among property owners, local governments, and state government regarding the extent and direction of command over resources.³²⁵ According to Professor George Lefcoe, “even successful redevelopment efforts were often implemented with a jaw-dropping lack of financial transparency, accountability, and oversight” of redevelopment agencies.³²⁶ He added that California redevelopment agencies “were best understood as ‘secret governments’ that piled on billions in debt and handed out subsidies to favored developers without much scrutiny or accountability.”³²⁷

More generally, “redevelopment agencies will need clear standards to prevent untoward discretion and excessive private benefits.”³²⁸

3. Secondary Rent Seeking

Economic rents are payments for goods in fixed supply, like undeveloped land. Thus, owners of land could receive a stream of leasehold income or substantial proceeds on sale, none of which affects the amount of the good in question. Since the right to receive such rents is valuable, individuals will exercise ingenuity or pay to control them. Economists refer to this as “rent seeking.”³²⁹

“Secondary rent seeking” refers to rents sought by private actors as a consequence of the initial rent seeking activity. In other words, the secondary rent seeker’s gain is dependent on primary rent seeking, and thus has an incentive to encourage it. An important example is urban revitalization involving the power of eminent domain. Redevelopers lobby for government condemnation of parcels in areas already or subsequently deemed “blighted,” although also having high potential for upscale development. After condemnation, numerous small parcels might be cleared of structures, assembled into superparcels, and transferred to favored developers for lucrative development. “Cases involving delegation of eminent domain to one or a few private parties, or involving condemnation followed by retransfer of the property to one or a few private parties, present the primary situations where such secondary rent seeking is likely to occur.”³³⁰

The interests created by rent seeking often are not mere expectancies, but rather they become a form of property, dubbed by economists “regulatory property.”³³¹ As with other forms of property, holders fight tenaciously to retain their entitlements.³³² Two aspects of such regulatory property, as enhanced

³²⁴ See, e.g., Timothy A. Canova, *Banking and Financial Reform at the Crossroads of the Neoliberal Contagion*, 14 AM. U. INT’L L. REV. 1571 (1999) (reporting on American crony capitalism, conflicts of interest, and lack of transparency).

³²⁵ See generally, George Lefcoe, *Redevelopment in California: Its Abrupt Termination and A Texas-Inspired Proposal for A Fresh Start*, ___ URB. LAW. ___ (forthcoming, 2013), available at <http://ssrn.com/abstract=2072560>.

³²⁶ Lefcoe, *supra* note 325, at *7.

³²⁷ Lefcoe, *supra* note 325, at *8 (quoting Ben Boychuk and Pia Lopez, *Head to Head: What Should Be the Future of Redevelopment in California?*, SACRAMENTO BEE, Jan. 11, 2012, <http://www.sacbee.com/2012/01/11/4178469/whatsould-be-the-future-of-eedevelopment.html#storylink=cpy>).

³²⁸ Amy Lavine, *From Slum Clearance to Economic Development: A Retrospective of Redevelopment Policies in New York State*, 4 ALB. GOV’T L. REV. 212, 269 (2011).

³²⁹ See Gordon Tullock, *The Welfare Costs of Tariffs, Monopolies, and Theft*, 5 W. ECON. J. 224 (1967), reprinted in TOWARD A THEORY OF THE RENT-SEEKING SOCIETY 39 (James M. Buchanan et al. eds., 1980). The specific term “rent seeking” was coined by Anne Krueger. Anne O. Krueger, *The Political Economy of the Rent-Seeking Society*, 64 AM. ECON. REV. 291 (1974), reprinted in *id.*

³³⁰ See Merrill, *supra* note 178, at 87-88.

³³¹ See Bruce Yandle and Andrew P. Morriss, *The Technologies Of Property Rights: Choice Among Alternative Solutions To Tragedies Of The Commons*, 28 Ecology L Q 123 (2001) (coining term). The fact that pieces of tin stamped as New York City taxi medallions are worth hundreds of thousands of dollars is a good illustration. *Id.* at 144, n 52.

³³² Recall Justice Holmes’s letter to William James, noting that the adverse possessor “shape[s] his roots to his surroundings, and when the roots have grown to a certain size, cannot be displaced without cutting at his life.” MAX LERNER, *THE MIND AND FAITH OF JUSTICE HOLMES*, 417 (1953), quoted in JOHN E. CRIBBET, *PRINCIPLES OF THE LAW OF PROPERTY* 301 (1975).

by secondary rent seeking, are the growth of LEED green building certification,³³³ and, more generally, land use regulation as a facilitator of crony capitalism.³³⁴

4. Green Building Certification and Secondary Rent Seeking

The U.S. Green Building Council (“USGBC”) is a private organization that certifies green building through its LEED system. “LEED provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.”³³⁵ Notably, business interests make up 89% of USGBC voting members.³³⁶ Currently, “[m]ore than 200 federal, state and local government agencies now require in hope of conserving energy and minimizing environmental damage.”³³⁷ Professor John Wargo stated “You’ve got the building industry playing a strong role in setting these standards that are then being adopted as law. I don’t think many people understand that.”³³⁸

The building industry’s influence over LEED, while raising some concerns, also has propelled LEED’s dramatic growth across the U.S. and into 139 countries. LEED has won wide acceptance among people who plan, design and construct buildings as a way to win environmental approval and boost profit. There are 13,500 LEED-certified commercial buildings in the U.S., and another 30,000 have applied for LEED approval.³³⁹ Among other incentives, in some states obtaining LEED certification might carry tax advantages.³⁴⁰

Additional interested parties may also result in lobbying and rent-seeking that has negative consequences for society in terms of efficiency and fairness. In the LEED example, the construction company possibly has another interest: in increasing demand for construction projects generally. This does not distinguish tradable tax credits from other types of government intervention, but the stronger political constituency described here means that a tradable tax credit may become fertile ground for rent-seeking because it will be well-protected by a variety of interests. Recall that this paper assumes that government policymakers can identify activities that create positive externalities but that will not occur without government intervention. Lobbying and rent-seeking may alter this assumption, or at least alter the ability of policymakers to follow through on this assumption. To the extent that strong political coalitions can influence undesirable policy outcomes, the tradable tax credit mechanism may carry inherent risks that are less acute with other forms of tax credit.³⁴¹

Those connected with USGBC, or who otherwise have special expertise in LEED, have a special incentive to urge that LEED certification be required for development projects.³⁴² In addition, the use of

³³³ See *infra* Part III.C.3.

³³⁴ See *infra* Part III.C.4.

³³⁵ USGBC web site <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1988&gclid=COXDmsXrobMCFQsf4AodPgMApg>. “LEED certification provides independent, third-party verification that a building, home or community was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.” *Id.*

³³⁶ Thomas Frank, “*Green*” *Growth Fuels and Entire Industry*, USA TODAY, Oct. 25, 2012 at **TK**.

³³⁷ Frank, *supra* note 336.

³³⁸ Frank, *supra* note 336 (quoting John P. Wargo).

³³⁹ Frank, *supra* note 336.

³⁴⁰ See Wallace, *supra* note 341, at 249 n.96 (2011) (noting that various government units have incentivized LEED certification or similar building standards). “For example, New York State had a Green Building Tax Credit, a semi-transferable credit for buildings that meet certain environmental requirements. See Public Policy Search, U.S. Green Building Council, <http://www.usgbc.org/PublicPolicy/SearchPublicPolicies.aspx?PageID=1776> (accessed by searching for “tax credits” under “Incentive”) . . . Other government units have enacted various incentives for LEED certification as well, primarily in the form of requiring that the governments themselves build or use LEED certified buildings. Public Policies Adopting or Referencing LEED, U.S. Green Building Council, <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852>.” *Id.*

³⁴¹ Clinton G. Wallace, Note, *The Case for Tradable Tax Credits*, 8 N.Y.U. J. L. & BUS. 227, 279 (2011).

³⁴² Frank, *supra* note 336 (asserting, e.g., that “Maryland LEED expert David Pratt became president of the building council’s state chapter in 2006 and was named to three government advisory groups, which helped persuade Maryland, Baltimore and Howard County, Md., to require LEED certification for new public buildings. The new laws boosted Pratt’s consulting group and his new business selling LEED software — and made Maryland one of the most popular states for LEED.”).

LEED standards delegates municipal police power regulation into a proprietary system and locks the municipality into that system.³⁴³

The operation of LEED is a good illustration of a group of knowledgeable and acquainted businesspeople and professionals who work together in devising, applying, and profiting from industry standards, which are incorporated into government programs, and which becomes a vehicle for private gain.³⁴⁴

CONCLUSION

This Article has focused on the need for a more sustainable environment, consistent with the protection of private property rights. This best can be achieved through a broad sharing of environmental burdens together with mechanisms, such as a carbon tax, that permit individuals and landowning entities to make necessary adjustments in their activities and land use in ways least costly to their overall purposes and enterprise. Environmentalism is not incompatible with strong property rights. Both, together, can help develop a more prosperous, stable, and sustainable world.³⁴⁵

³⁴³ See Douglas S. Reiser, *Construction Goes "Green": Adapting to Green Construction Standards and the Laws Behind Them*, ASPATORE 1, 4, 2011 WL 6740835 (2011). "While the LEED mandate might sound like a step in the right direction, many in the legal arena cringed when public agencies began to dabble in LEED mandates from private construction. Detractors worried that public agencies were relying too much on private, third party review, and demanding an exceptional building standard of normal commercial building." *Id.*

³⁴⁴ See, e.g., Canova, *supra* note 324, at 1583 (generally noting collaboration among professionals and officials).

³⁴⁵ See Kalen, *supra* note 70, at 114 (citing TED NORDHAUS & MICHAEL SHELLENBERGER, *BREAK THROUGH: FROM THE DEATH OF ENVIRONMENTALISM TO THE POLITICS OF POSSIBILITY* (2007) (discussing the need for a rebirth of "environmentalism" and renewed political strategy).