Owning Up to the Environment

by Daniel A. Farber

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It may seem paradoxical to suggest that property law can shape constitutional doctrine, let alone that it can do so in a pro-environmental direction. As every law student learns, constitutional law trumps "ordinary" law such as property law. Yet, constitutional doctrines have to operate on facts—and those facts may be legal ("Has the government invaded the plaintiff's property rights?") as well as physical. Changing the legal facts can change the constitutional result. If we cannot directly persuade the U.S. Supreme Court to make the constitutional machinery more "environment friendly," we might be able to achieve similar results by changing the raw materials that are fed into the machine. Or, to use another metaphor, we may be able to change the legal landscape in which constitutional doctrine operates.

"Property rights advocates" typically oppose environmental regulation. Yet, property law actually has great potential to support environmental protection.[1] This Article will argue that, rather than being a constitutional bulwark against environmental regulation, certain kinds of property rights can actually ease constitutional barriers created by current Supreme Court doctrine. These environmental property rights (EPRs) are either rights to prevent environmental degradation (such as conservation easements) or limited rights to impair the environment (such as tradable pollution permits). Among other possible benefits, these property rights may help nudge constitutional law in a more environmentally friendly direction.[2]

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1. As Carol Rose has observed, the "very public infrastructure that created a felt need for environmental protection in the first place is now being called upon to satisfy that need, particularly in the form of new property regimes." Carol M. Rose, *Big Roads, Big Rights: Varieties of Public Infrastructure and Their Impact on Environmental Resources*, 50 Ariz. L. Rev. 409, 442 (2008). She astutely added: "[W]e scarcely have any choice except to meet this call by a robust public infrastructure of newly modeled rights." *Id.* Rose has also pointed out, however, that environmental property regimes are not unproblematic. *See* Carol M. Rose, *Liberty, Property, Environmentalism* (Ariz. Legal Studies, Discussion Paper No. 10-19, 2010), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1624933. It should not be assumed that environmental property rights (EPRs) are always appropriate responses to specific environmental problems, and even when they are, the proper design of EPRs requires careful attention.
2. It is not surprising that recognition of these property rights may have constitutional significance. Constitutional law is often predicated on nonconstitutional laws that define property interests. For instance, in procedural due process cases, state law typically determines the existence and contours of the person's entitlement. Only then does federal law determine whether that entitlement qualifies as a property interest sufficient to trigger due process, and if so, whether due process has been provided. *See* Bd. of Regents v. Roth, 408 U.S. 564, 577 (1972).
3. *Cf.* Richard H. Thaler & Cass R. Sunstein, Nudge: Improving Decisions About Health, Wealth, and Happiness (2008) (arguing that reframing decisions can improve outcomes in a variety of contexts).

At a fundamental level, EPRs change constitutional outcomes because they allow courts to see connections and dimensions of value that are otherwise less accessible to the legal system. When EPRs empower individuals to prevent environmental degradation, they bring into concrete legal form the inchoate connections that exist between all of us and the environment. When other EPRs convert an environmental improvement in one location into a marketable asset, they help courts "see" that part of the value of property is its ability to produce environmental services (which are indirectly compensated when the EPR is sold). A cap on pollution helps courts see that pollution is a collective problem involving the management of an important resource, not simply restraint on individual polluters.

In this way, intangible environmental values are reified as property interests, making it harder for judges to avoid recognizing their reality. This recognition, in turn, can change the outcome of some constitutional issues. Thus, EPRs can change the framing of constitutional cases and thereby impact outcomes.[3]

As a prelude to the analysis, Part I surveys environmental property rights. The remainder of the Article explores how EPRs could affect outcomes in key areas of constitutional doctrine: Article III standing, takings law, and the scope of the federal commerce power.

With respect to each of these three constitutional issues, the basic logic is quite simple:

- *Standing.* A key element of standing is "injury-in-fact." Injuries can harm property interests as well as personal ones. Thus, possession of an EPR can provide a basis for standing, with the loss of value to the EPR registering the injury-in-fact.
- *Takings.* To determine whether property has been taken without just compensation, we must first know what property interests the owner originally had and what the owner is left with. EPRs that are held by third parties can subtract from the first category; EPRs that are granted the property owner can add to the second

category. These effects can undermine any claim that the owner's property has been taken.

- *Congressional power*. EPRs can connect otherwise nonfederal activities with federally regulated ones. EPRs can also trade in interstate commerce. Because of these effects, the U.S. Congress may be able to influence activities that are otherwise outside the commerce power.

The remainder of this Article is devoted to explaining EPRs and then to fleshing out these constitutional arguments.

I. The EPR Menagerie

This Article focuses on the constitutional implications of a particular aspect of property law: property rights that are connected with environmental preservation. It behooves us to begin with an exploration of those rights.

An EPR can be defined as an enforceable interest deriving from an environmental asset such as air quality or an undisturbed forest. EPRs are diverse and varied. Most EPRs are derived from statute rather than the common law, and many are of recent vintage. Some EPRs are marketable; others are not. Perhaps more notably, some EPRs involve the power to prevent a third party from impairing the environment; others are created when an owner foregoes the right to exploit an environmental asset; the owner can then transfer that right to the owner of some other property. But these are two sides of the same coin: there is no difference between capping private water rights at 50% of a river or holding that the other 50% is reserved for stream flow. Essentially, a cap on impairment marks out the permitted range of privately controlled use of a resource, while the public owns (and reserves from use) the remainder.

There are a surprising number of environmental property rights. A listing would include at least 10 types of EPRs:

1. *The Public Trust.* Perhaps the EPR with the deepest historical roots is the public trust doctrine, which limits the rights of public and private owners of certain lands (particularly those under or adjacent to waterways). The public trust doctrine empowers members of the public to sue to prevent interference with their right to access, use, or enjoy water bodies (and, in some states, parklands).[4] The leading case concerning this doctrine is *Illinois Central Railroad Co. v. Illinois*,[5] in which the Court described the public trust as "a title held in trust for the people of the state, that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein, freed from the obstruction or interference of private parties."[6]

Marks v. Whitney[7] illustrates the modern evolution of the public trust doctrine from *lllinois Central*'s emphasis on exploitation and commercial use to encompass ecological values. In *Marks*, the California Supreme Court held that the public trust doctrine includes preservation of coastal areas as "ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area." Later, in *National Audubon Society v. Superior Court of Alpine County*,[8] the same court held that the public trust doctrine limited "prior appropriation" rights over use of water, so that Los Angeles was not automatically entitled to the full use of its water rights where the result would be to completely dry up a lake.

2. *Tradable Permits*. These are pollution allowances, in a cap-and-trade scheme, which allow a firm that reduces its emissions to profit by selling its allowance.[9] These allowances can be sold to other present or prospective dischargers, or to non-dischargers entering the market for speculative or environmentalist purposes. Most trading systems limit the duration of permits to some specified time, such as five or 10 years. The initial permit holders can be chosen in several ways. Permits can be allocated among existing polluters (free or for a price), or among broader groups of applicants by auction or lottery. Once the pollution permits have been allocated initially, they are transferable, and sale prices function as free-market equivalents of pollution taxes. The permits have value because emissions are subject to an overall cap. In modern pollution statutes, the public can resort to a citizen suit if a private firm invades the quantity of resources reserved to the public, much as if the "over-the-cap" resource was subject to the public trust.

4. *See* Gerald Torres, *Who Owns the Sky?*, 19 Pace Envtl. L. Rev. 515, 528-30 (2002). The seminal article on the public trust doctrine is Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471 (1970). For an exploration of the nuanced variations of the public trust between various states, and the adaptability of the public trust to new issues, see Robin Kundis Craig, *Adapting to Climate Change: The Potential Role of State Common-Law Public Trust Doctrines*, 34 Vt. L. Rev. 781 (2010). The public trust doctrine has both critics and staunch defenders. For an overview of the debate, see Hope M. Babcock, *The Public Trust Doctrine: What a Tall Tale They Tell*, 61 S.C. L. Rev. 393 (2009). For citations to critics such as James Huffman, see *id.* at 393 n.1. Huffman argues that "a generation of scholars and several generations of judges have misunderstood or misrepresented the history" of the public trust doctrine. James L. Huffman, *Speaking of Inconvenient Truths—A History of the Public Trust Doctrine*, 18 Duke Envtl. L. & Pol'y F. 1, 8 (2007).

5. 146 U.S. 387 (1892).

6. *Id.* at 452. Forests apparently were also subject to public access rights for hunting in early American law. *See* Eric T. Freyfogle, *Property and Liberty*, 34 Harv. Envtl. L. Rev. 75, 88-90 (2010).

7. 491 P.2d 374 (Cal. 1971). For later commentary on the case, see Michael C. Blumm & Thea Schwartz, *Mono Lake and the Evolving Public Trust in Western Water*, 37 Ariz. L. Rev. 701 (1995).

8. 658 P.2d 709, 13 ELR 20272 (Cal. 1983).

9. For conceptual overviews, see Robert W. Hahn & Gordon L. Hester, *Marketable Permits: Lessons for Theory and Practice*, 16 Ecology L.Q. 361 (1989); Torres, *supra* note 4, at 560-68. A related concept is the use of transferable fishing quotas to help maintain sustainable fish stocks. *See* David Dana, *Overcoming the Political Tragedy of the Commons: Lessons Learned From the Reauthorization of the Magnuson Act*, 24 Ecology L.Q. 833 (1997); Kristen M. Fletcher, *When Economics and Conservation Clash: Challenges to Economic Analyses in Fisheries Management*, 31 ELR 11168 (Oct. 2001).

3. *Wetland Mitigation Credits*. Mitigation credits allow the owner of a wetland to profit from restoring that wetland or creating an artificial wetland by either developing wetland elsewhere or "banking" the credit for use by another developer.[10] In turn, that other developer buys the credit in order to offset wetlands destruction in another project. Mitigation banking has long been in use, but was reinforced by new regulations in 2008 making it a preferred method of off-site mitigation.[11]

4. *Air Pollution Offsets*. The equivalent of wetlands mitigation for air pollution is called an offset. Under the Clean Air Act (CAA),[12] a pollution reduction in a nonattainment area can be used to "offset" a new pollution source. Specifically, CAA §173 requires permits for the construction and operation of "new or modified major stationary sources" in nonattainment areas. Permits are issued only if "total allowable emissions" from existing sources and new non-major sources are "sufficiently less than total emissions from existing sources allowed under the applicable implementation plan" when the permit is sought, "so as to represent . . . reasonable progress." Thus *total* emissions of each pollutant must be reduced even though a new source has been added. Under the 1990 Amendments, the amount of the reduction varies with the severity of the area's nonattainment problem. Offsets are like tradable pollution permits but can be used only for limited purposes and can be created only by permanent pollution reductions from other sources.

5. *Transferable Development Rights* (TDRs). TDRs allow a real estate developer to transfer unused air space or density from one site to another.[13] Offsets resemble TDRs, but there is a significant difference. In an offset system, the legal system pressures buyers into the market as the price of development, whereas for the TDR, the law merely creates a supply of EPRs to benefit owners whose development has been restricted.

TDRs are "marketable, quantifiable units of development potential," which "represent the difference between the maximum development permissible for the original parcel and a lesser amount of development permissible under restrictions specific to the parcel."[14] For instance, if a building is subject to a lower height restriction than surrounding properties, the owner might be able to add the "unused" airspace to make a building on nearby land taller than would otherwise be allowed.[15] While it is conceivable that the issuance of TDRs could lead to a perception that development restrictions other than the TDR are defective, they should be implemented in a way that communicates a different message: that the owner's development plans are simply mislocated geographically and need to be redirected to where harmful effects are lessened.

6. *Conservation Easements and Conservation Trusts.* Conservation easements entitle the owner of the easement to prevent development on land owned by another. With the support of state laws specifically authorizing such transactions, these easements are created by a conveyance from the owner of the land in question,[16] usually voluntarily but sometimes under legal compulsion or governmental pressure.[17] By 2005, over six million acres in the United States were subject to conservation easements.[18] Violation of the easement can lead to vigorous remedies from the court.[19] A related concept is the conservation trust fund, in which an endowment is created to support joint public-private activities, often in developing countries.[20] Again, it is important that the transactions be framed in terms of voluntary acts to promote the public interest, rather than as recognition that imposing developments involuntarily would be illegitimate.

7. *In-Stream Flow Rights*. In-stream flow rights entitle the owner to limit use by owners of other water rights. The legal regime protecting stream flows includes the Endangered Species Act (ESA),[21] portions of the Clean Water Act (CWA),[22] riparian rights in eastern states, reserved water rights of federal or tribal lands, and the public trust doctrine in some western states.[23] Several western states now recognize in-stream rights by statute within their prior appropriation schemes or allow conversion of appropriative rights to public in-stream rights.[24] In addition, like the conservation easements discussed above, "water trusts" are now used to

10. *See* J.B. Ruhl & R. Juge Gregg, *Integrating Ecosystem Services Into Environmental Law: A Case Study of Wetlands Mitigation Banking*, 20 Stan. Envtl. L.J. 365 (2001).
11. Fred Bosselman, *Swamp Swaps: The "Second Nature" of Wetlands*, 39 Envtl. L. 577, 579-80 (2009). Use of banking is preferred because it "encourages development of wetland mitigation banks in order to produce larger wetlands systems that will perform more functions more reliably, and because a mitigation bank can sell shares to developers before they destroy other wetlands, thereby reducing the time lag between destruction of a wetland and its replacement." *Id.* at 583-84.
12. 42 U.S.C. §§7401-7671q (2007), ELR Stat. CAA §§101-618.
13. Sara C. Bronin, *Modern Lights*, 80 U. Colo. L. Rev. 881 (2009).
14. *Id.* at 916-17.
15. *See* Dwight H. Merriam, *Reengineering Regulation to Avoid Takings*, 33 Urb. Law. 1, 29-32 (2001).
16. For background on conservation easements, see Nancy A. McLaughlin, *Conservation Easements: Perpetuity and Beyond*, 34 Ecology L.Q. 673 (2007). As illustrated by conservation easements, "[g]enerally speaking, the trend has been toward recognition of a wider variety of servitudes and abandonment of some of the more convoluted common law doctrinal requirements." Molly Shaffer Van Houweling, *The New Servitudes*, 96 Geo. L.J. 885, 888 (2008).
17. *See* Jessica Owley Lippmann, *The Emergence of Exacted Conservation Easements*, 84 Neb. L. Rev. 1043 (2006).
18. Ann Harris Smith, *Conservation Easement Violated: What Next? A Discussion of Remedies*, 20 Fordham Envtl. L. Rev. 597, 598 (2010) (citing Rob Aldrich & James Wyerman, Land Trust Alliance, 2005 National Land Trust Census Report 5 (2005)). For an overview of controversies about conservation easements, see *id.* at 602-03.
19. *Id.* at 611-21. A similar mechanism is provided by proprietary controls, a set of "institutional controls" used by environmental agencies to protect the integrity of a remedy by obtaining deed restrictions that restrict future land uses. In return for the restriction on land use, a lesser degree of cleanup is mandated. *See* U.S. EPA, Superfund Policy, http://ww.epa.gov/superfundpolicy/ic/index.htm.
20. *See* Marianne Guerin-McManus, *Conservation Trust Funds*, 20 UCLA J. Envtl. L. & Pol'y 1 (2001/2002).
21. 16 U.S.C. §§1531-1544 (2007), ELR Stat. ESA §§2-18. *See* Holly Doremus, *Water, Population Growth, and Endangered Species in the West*, 72 U. Colo. L. Rev. 361, 380-82 (2001).
22. 33 U.S.C. §§1251-1387 (2007), ELR Stat. FWPCA §§101-607.
23. *See* Robin Kundis Craig, *Climate Change, Regulatory Fragmentation, and Water Triage*, 79 U. Colo. L. Rev. 825, 833-52 (2008); A. Dan Tarlock, *Ecosystem Services in the Klamath Basin: Battlefield Casualties or the Future?*, 22 J. Land Use & Envtl. L. 207, 230-38 (2007).
24. *See* Adam Schempp, *Western Water in the 21st Century: Policies and Programs That Stretch Supplies in a Prior Appropriation World*, 40 ELR 10394 (Apr. 2010).

protect in-stream flow,[25] and rights acquisition by these trusts and by government offers a promising approach to preserving water bodies.[26]

8. *Carbon Offsets.* Greenhouse gas (GHG) offsets, also commonly called carbon offsets, allow an emitter to meet the requirements of a cap-and-trade scheme by purchasing a carbon reduction by a third party who is outside the trading system. These offsets could take the form of reduced emissions in the United States or perhaps elsewhere, such as the substitution of a natural gas electricity generator for a coal-fired generator in China. Alternatively, they could involve the creation of additional carbon sinks, such as planting trees.[27] They differ from the CAA offsets discussed earlier because those offsets come from one regulated source and are used by another. In contrast, GHG offsets come from GHG sources or sinks that are not otherwise subject to regulatory requirements because they are in unregulated sectors or are outside the regulating jurisdiction.

9. *Rolling Easements*. Climate change will result in higher sea levels and increased coastal erosion, resulting in the landward movement of beaches. Rolling easements are one response—essentially, the public trust's coverage moves inward along with the beach.[28] North Carolina and Texas already recognize such easements, but their adoption has been proposed for other coastal areas as well.[29]

10. *Solar Rights*. Rights of access to sunshine are increasingly important due to the growth of solar power. These rights can take the form of express easements (often specifically authorized by state legislation), which in at least one state can be imposed on holdouts by local regulators[30]; express covenants between neighboring landowners, which run with the land and bind subsequent purchasers[31]; and public allocation schemes such as solar permits based on prior appropriation, zoning restrictions, and public nuisance laws.[32]

Most readers will be familiar with some or all of these EPRs, but considering them in tandem highlights their growing significance. Now that we have surveyed the universe of EPRs, we turn to an analysis of how EPRs might affect application of Article III standing doctrine, the Takings Clause, and the Commerce Clause.

II. EPRs and Standing

The first constitutional domain we consider is standing doctrine. Put simply, standing involves a three-part test: a plaintiff must demonstrate the existence of an "injury-in-fact" that is "legally cognizable," "fairly traceable" to the defendant, and capable of being "redressed" by the court.[33] Each of the terms in quotation marks has proved remarkably tricky in practice, to the dismay of judges, litigants, and law students. The case law in the area has long been renowned for its inconsistency,[34] and cases have sometimes seemed oblivious to environmental concerns.[35]

The most important recent standing case—indeed, probably the most significant environmental law ruling in the Court's history—was *Massachusetts v. EPA*.[36] In *Massachusetts*, states, local governments, and environmental organizations petitioned for review of the U.S. Environmental Protection Agency's (EPA's) denial of their petition, which had asked EPA to begin a rulemaking to regulate GHG emissions from motor vehicles under the CAA.[37] A key issue was the plaintiffs' standing. Justice John Paul Stevens, writing for a 5-4 majority, held that the plaintiffs did have standing.

Before turning to the conventional tripartite test for standing, Justice Stevens made some preliminary points. He rejected the assertion that injuries are disqualified from serving as a basis for standing merely because they are very widespread.[38] Also, because some of the plaintiffs were state governments, he suggested that their standing claim should be treated with particular generosity.[39]

Justice Stevens then turned to the tripartite standing test. As to injury-in-fact, he observed that "[t]he harms associated with climate change are serious and well recognized."[40] In particular, he noted that sea-level rise could destroy a "significant fraction of coastal property."[41] As to causation, EPA contended that the *particular* government action that the plaintiffs sought would not by itself have a significant impact on climate change. The Court rejected this "erroneous assumption that a small incremental step, because it is incremental, can never be attacked in a federal judicial forum."[42] Finally, the Court was untroubled by the remedial issues. "While it may be true that regulating motor-vehicle emissions will not by itself *reverse* global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to *slow* or *reduce* it."[43]

25. *See* Mary Ann King, *Getting Our Feet Wet: An Introduction to Water Trusts*, 28 Harv. Envtl. L. Rev. 495 (2004).
26. *See* Barton H. Thompson Jr., *Markets for Nature*, 25 Wm. & Mary Envtl. L. & Pol'y Rev. 261 (2000).
27. *See* Nathan Richardson, *International Greenhouse Gas Offsets Under the Clean Air Act* (Res. for the Future, Discussion Paper No. 10-24, 2010), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1586037.
28. Meg Caldwell & Craig Holt Segall, *No Day at the Beach: Sea Level Rise, Ecosystem Loss, and Public Access Along the California Coast*, 34 Ecology L.Q. 533, 566-76 (2007).
29. *See* Concerned Citizens of Brunswick Co. Taxpayers Ass'n v. North Carolina, 404 S.E.2d 677 (N.C. 1991); Arrington v. Texas General Land Office, 38 S.W.3d 764 (Tex. App. 2001); Feinman v. Texas, 717 S.W.2d 106 (Tex. App. 1986).
30. Sara C. Bronin, *Solar Rights*, 89 B.U. L. Rev. 1217, 1226-31 (2009).
31. *Id.* at 1231-39.
32. *Id.* at 1239-57.
33. *See, e.g.,* Lujan v. Defenders of Wildlife, 504 U.S. 555, 560, 22 ELR 20913 (1992); Gene R. Nichol Jr., *Rethinking Standing*, 72 Cal. L. Rev. 68, 71-73 (1984).
34. *See* Nichol, *supra* note 33, at 68, 71 (also remarking that the "law of standing is dominated by slogans and litanies").
35. *See* Richard J. Lazarus, *Restoring What's Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. Rev. 703, 749-52 (2000).
36. 127 S. Ct. 1438, 37 ELR 20075 (2007).
37. *Id.* at 1449-51.
38. *Id.* at 1453.
39. *Id.* at 1454-55.
40. *Id.* at 1455.
41. *Id.* at 1456.
42. *Id.* at 1457.
43. *Id.* at 1488.

Since *Massachusetts*, several lower courts have had occasion to consider standing in climate litigation. Some judges have applied climate standing generously,[44] while the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit restricted *Massachusetts* to its "unique facts."[45] It remains to be seen how climate standing will fare in future Supreme Court cases. It is not hard to imagine that Justice Anthony Kennedy (the swing voter) might be less sympathetic to standing in a case involving a much smaller increment in GHGs, especially if a state government is not the plaintiff. In the meantime, the Court has continued its wobbling course on standing more generally, with a restrictive opinion by Justice Antonin Scalia in *Summers v. Earth Island Institute*.[46]

Impairment or decreased value of a property interest is an obvious "injury-in-fact." By changing the portfolio of property interests, EPRs may provide the basis for new claims of injury, which in turn could support Article III standing in borderline cases. Without trying to exhaust the possibilities, we can readily identify four potential avenues for using EPRs to support standing.

First, EPRs might be helpful in establishing standing in climate cases involving less dramatic regulatory issues than *Massachusetts*, which involved whether the federal government had any power to regulate GHGs. For example, suppose that a federal regulatory scheme provides for the use of carbon offsets. A regulation making carbon offsets more available might be objectionable to environmentalists because offsets can be difficult to monitor and can result in giving credit for carbon reductions that would have happened anyway. Yet, it might be difficult to prove that an expansion in offsets would cause increased atmospheric GHGs, let alone that any particular plaintiff would suffer harm from climate impacts resulting from those increased emissions. In contrast, a plaintiff who already owns banked offset credits or one who owns emissions allowances could probably show that the market value of these EPRs is decreased when offsets become more plentiful or cheaper. It is basic economics that increased supply lowers prices. Such a plaintiff could claim standing to challenge the liberalized offset system, whereas it might be hard to establish standing based on the climate effects of the government policy.

Second, the public trust doctrine might also function as a basis for standing—in climate cases and otherwise—on the theory that each individual is the holder of a personal share of the public trust. Under state law, individuals have the power to enforce the trust. This standing is sometimes linked with taxpayer status, at least in a tentative way, a theory of standing that would not carry over to federal court.[47] Other courts speak of standing as granted to all members of the public, not limited to taxpayers.[48] This approach suggests that members of the public may be in the position of cotenants or business partners, each of whom has a property interest in the assets held in common. By articulating that state citizens hold a property interest of this kind, a state court might open the door to federal court standing based on infringement of this state-law property interest. Alternatively, and perhaps more promisingly, the public trust could be considered a delegation under state law to citizens to represent the state's interests, invoking the special solicitude toward states discussed in *Massachusetts.*

Third, conservation trusts can also provide a basis for private standing. The U.S Court of Appeals for the Second Circuit found standing in conservation trusts to bring a public nuisance action against carbon emitters based on damage to property interests. The trusts alleged injury to their property interests because climate change will "diminish or destroy the particular ecological and aesthetic values that caused [them] to acquire, and cause them to maintain, the properties they hold in trust" and would "interfer[e] with their efforts to preserve ecologically significant and sensitive land for scientific and educational purposes, and for human use and enjoyment."[49] They also alleged that sea-level rise caused by global warming would "permanently inundate . . . property that Plaintiffs own or on which they hold conservation easements" and would salinize marshes on their properties, destroying fish and migratory bird habitats.[50]

Fourth, the federal government could make deliberate use of property conveyances to create standing. For instance, it might transfer a conservation easement over certain federal lands to a nonprofit in order to ensure that an outside monitor would have standing to sue over future violations of laws protecting those lands.

Although this list is not exhaustive, it does suggest that legislatures could take steps to broaden standing by expanding the use of EPRs, and that environmental plaintiffs can

44. *See* Connecticut v. Am. Elec. Power Co., 582 F.3d 309, 332, 344, 39 ELR 20215 (2d Cir. 2009) (extending standing both to state governments and to private land trusts); Comer v. Murphy Oil USA, 585 F.3d 855, 39 ELR 20237 (5th Cir. 2009) (extending standing to private parties in nuisance case), *vacated*, 607 F.3d 1049, 1055, 40 ELR 20147 (5th Cir. 2010) (en banc) (vacating without any substitute holding because the U.S. Court of Appeals for the Fifth Circuit granted rehearing en banc but then was unable to assemble a quorum).
45. Ctr. for Biological Diversity v. U.S. Dep't of Interior, 563 F.3d 466, 475-77, 39 ELR 20091 (D.C. Cir. 2009).
46. 129 S. Ct. 1142, 39 ELR 20047 (2009). *Summers* involved a suit by an organization challenging the U.S. Forest Service's procedures for conducting salvage timber sales. After holding inadequate an affidavit about the likelihood that the procedures would affect one particular member of the organization, Justice Scalia found it irrelevant that it was statistically almost certain that some member of the organization would visit the site of some salvage timber sale.
47. *See* Paepcke v. Pub. Bldg. Comm'n of Chicago, 263 N.E.2d 11, 18, 1 ELR 20172 (1970) ("If the 'public trust' doctrine is to have any meaning or vitality at all, the members of the public, at least taxpayers who are the beneficiaries of that trust, must have the right and standing to enforce it."); Lord v. City of Wilmington, 332 A.2d 414 (Del. Ch. 1975).
48. In a leading case upholding such standing, the California Supreme Court observed that:

> Members of the public have been permitted to bring an action to enforce a public right to use a beach access route; to bring an action to quiet title to private and public easements in a public beach; and to bring an action to restrain improper filling of a bay and secure a general declaration of the rights of the people to the waterways and wildlife areas of the bay. Members of the public have been allowed to defend a quiet title action by asserting the right to use a public right of way through private property. They have been allowed to assert the public trust easement for hunting, fishing and navigation in privately owned tidelands as a defense in an action to enjoin such use, and to navigate on shallow navigable waters in small boats.

Marks v. Whitney, 491 P.2d 374, 381, 2 ELR 20049 (Cal. 1971) (citations omitted).
49. 582 F.3d at 319.
50. *Id.* at 342.

exploit existing EPRs in order to gain standing. Endowing individuals or organizations with environmental property rights gives them concrete interests in controversies relating to the relevant environmental resources. They have an incentive to litigate fully in defense of those rights, and are likely to be appropriate representatives of the public interest because of their expertise and motivation to defend not only their specific property interests but the larger goals that led them to acquire the EPRs in the first place.

As property law evolves, standing law will evolve along with it. As we will see in the next section, the same is true of takings law.

III. EPRs and Environmental Takings Issues

It is important to note that the Court currently employs three separate tests in regulatory takings cases. First, the Court finds a taking when the government mandates an ongoing physical intrusion on private property. This intrusion is a taking even if it does not cause any harm to the owner, either in economic terms or as an invasion of privacy.[51] The second category, established in *Lucas v. South Carolina Coastal Council*,[52] applies to so-called total takings, where the government has eliminated any possible economically beneficial use of the property. The third (default) category is governed by the *Penn Central* test,[53] which requires a determination of whether the government regulation interferes with reasonable, investment-backed expectations.

Takings doctrine can be a serious problem for preservation laws, such as those designed to prevent the destruction of wetlands or biodiversity.[54] Such regulations may prevent the development of all or part of an owner's land, or may require use of the land for the public to access waterways or other public areas. Thus, physical invasion or total takings claims are quite possible. Indeed, the Federal Circuit has responded favorably to takings claims in a number of wetlands cases.[55]

Penn Central Transportation Co. v. City of New York[56] provided the default test for takings, applicable in the absence of a physical intrusion or a total taking. The case is also significant, however, because it marks the Court's first encounter with an EPR. The Court pointed out that, to the extent the complaining party had been denied the right to build above a certain level, "it is not literally accurate to say that they have been denied *all* use of even those pre-existing air rights."[57] The ability "to use these rights has not been abrogated; they are made transferable to at least eight parcels in the vicinity," and "the rights afforded are valuable."[58] Thus, "[w]hile those rights may well not have constituted 'just compensation' if a 'taking' had occurred, the rights nevertheless undoubtedly mitigate whatever financial burdens the law has imposed on appellants," and, the Court added, "for that reason, [these TDRs] are to be taken into account in considering the impact of regulation."[59] Thus, the grant of TDRs weighs against finding that a development restriction "takes" private property.

The significance of *Penn Central*'s treatment of TDRs has not been lost on property rights advocates. Justice Scalia has called for overruling this aspect of *Penn Central* or limiting it to its facts (involving the owner of contiguous parcels). In his view, TDRs are "a clever, albeit transparent, device"[60] that could "render much of our regulatory takings jurisprudence a nullity."[61] Justice Scalia's critique of *Penn Central* seems misguided. TDRs cannot be considered merely a form of takings compensation, because their issuance does not depend on a prior finding that a taking has occurred. Indeed, landowners may receive TDRs even when it is clear that no takings liability exists. In any event, the Justice Scalia critique does not seem to have been successful. As a disgruntled commentator conceded, most courts today have "considered TDRs as an economic use existing with the land, thus mitigating the effects of regulation."[62]

Justice Scalia's distaste for TDRs may stem from a perception that the owner's right to develop a particular bit of air space is a separate interest in property, which has been wrested from the owner's hands and forcibly exchanged for the right to develop other air space. But the right to develop air space is really just part of the bundle of rights held by the owner, and it is necessarily a fuzzy right since the amount of allowable height is subject to change in the public interest depending on the circumstances. Thus, it is legitimate for the government to redefine the fuzzy edges of the owner's rights in a way that preserves value for the owner while better serving the public interest.

It is easy to imagine other EPRs playing similar roles. For instance, a grant of wetland mitigation credits could be considered to ameliorate the loss of development rights for a wetland, taking the case out of the *Lucas* total-takings category. Similarly, if the owner of forest lands is forbidden to harvest trees, any resulting carbon offsets (assuming they are available) would have economic value that weakens any taking claim.

51. Admittedly, this rule has received some justified criticism. *See* Andrea L. Peterson, *The False Dichotomy Between Physical and Regulatory Takings Analysis: A Critique of* Tahoe-Sierra*'s Distinction Between Physical and Regulatory Takings*, 34 Ecology L.Q. 381 (2007). A separate problem, not discussed as relevant here, is presented when the government grants permission to develop only if the owner agrees to allow public access or to transfer a property interest to the government.
52. 112 S. Ct. 2886, 23 ELR 20297 (1992). The Court recognized an important exception, allowing an activity to be completely banned when it constitutes a common-law nuisance. For discussion of this exception, see Richard J. Lazarus, *Putting the Correct "Spin" on* Lucas, 45 Stan. L. Rev. 1411 (1993).
53. The test derives from *Penn Central Transportation Co. v. New York*, 438 U.S. 104, 8 ELR 20528 (1978).
54. For a recent discussion, see John D. Echeverria & Julie Lurman, "*Perfectly Astounding" Public Rights: Wildlife Protection and the Takings Clause*, 16 Tul. Envtl. L.J. 331 (2003).
55. *See, e.g.,* Palm Beach Isles Assocs. v. United States, 208 F.3d 1374, 30 ELR 20481 (Fed. Cir. 2000); Loveladies Harbor, Inc. v. United States, 28 F.3d 1171, 24 ELR 21072 (Fed. Cir. 1994).
56. 438 U.S. 104, 8 ELR 20528 (1978).
57. *Id.* at 137.
58. *Id.*
59. *Id.*
60. Suitum v. Tahoe Reg'l Planning Agency, 520 U.S. 725, 748, 27 ELR 21064 (1997) (Scalia, J., concurring in part).
61. *Id.* at 750.
62. Andrew J. Miller, *Transferable Development Rights in the Constitutional Landscape: Has* Penn Central *Failed to Weather the Storm?*, 39 Nat. Resources J. 459, 492 (1999).

EPRs may also affect takings claims by defining the limits of the owner's property rights. In *Lucas*, the Court held that the state can defend against a regulatory taking claim by showing that the owner's title never included the right to engage in the forbidden activity in the first place. Courts have recognized that the public trust doctrine is one such carve-out from private ownership.[63] In *Wilson v. Massachusetts*,[64] the court rejected a taking claim for refusal of a dredge and fill permit to complete a marina. Similarly, in *Esplanade Properties, LLC v. City of Seattle*,[65] the court rejected a takings claim based on a ban on construction in tidelands because the construction would be inconsistent with the public trust. In the same vein, once rolling easements have been established in states where they do not now exist, they would negate future takings claims as retreating shorelines triggered development limitations in new areas.[66]

If a property owner's interests are subject to an EPR held by the government or by a third party, the owner's reasonable expectations are limited accordingly. Nothing has been taken away that the owner ever had in the first place. When a government action transmutes certain property rights into EPRs that can be exercised elsewhere or sold, it would be wrong to view the government's action as a simple deprivation of property rights, while ignoring that the owner's interests may have survived in a different guise. Thus, when EPRs enter into the process, either before or as part of the challenged regulatory action, they mute the deprivation suffered by the owners, attenuating the claim of constitutional harm.

IV. EPRs and the Limits of Federal Regulatory Power

Finally, we turn to the connection between EPRs and federal power. *United States v. Lopez*[67] established three categories of federal regulatory power under the Commerce Clause: (1) Congress may regulate the use of the "channels" of interstate commerce, either by eliminating obstructions or banning certain users (such as sellers of illicit drugs); (2) Congress can regulate the instrumentalities of interstate commerce and protect them from threats, whether those threats are local or interstate; and (3) Congress can regulate commercial activities having substantial effects on interstate commerce. The *Lopez* Court struck down the law before it (a ban on possessing guns near schools) because it fell outside these three categories. Five years later, the same majority ruled in *United States v. Morrison*[68] that Congress lacked the power to legislate against violence to women.

There are several areas in which these decisions could threaten federal environmental regulation. For instance, the ESA regulates the "taking" of endangered species,[69] which includes some forms of habitat modification.[70] (Note that this use of the term "taking" is different from its use in discussing "takings" of private property, which can sometimes be confusing.) Whether a particular species has any actual effect on commerce may be debatable, and the activity in question may not be commercial.[71] The CWA, besides regulating water pollution, also restricts the filling of wetlands.[72] The Commerce Clause may not be broad enough to allow federal regulation of all wetlands.

Indeed, the Supreme Court has limited regulatory jurisdiction over wetlands for federalism reasons,[73] relying primarily on statutory grounds but with a strong suggestion that a contrary reading of the statute might render it unconstitutional. In particular, the Court rejected the government's claim that "isolated ponds, some only seasonal, wholly located within two Illinois counties, fall under [the statute's] definition of 'navigable waters' because they serve as habitat for migratory birds."[74] Unfortunately, the Court's discussion of the constitutional issues makes up in obscurity for what it lacks in length, but the decision highlights the potential constitutional limits of congressional regulatory power.[75]

EPRs might ameliorate these potential constitutional problems. For example, the federal government might allow banking of isolated wetlands (over which it does not have jurisdiction) to be used for mitigation by developers of other wetlands (over which it does have jurisdiction). Such use of isolated wetlands for mitigation would not exceed the commerce power, for the only actual regulation involves non-isolated wetlands over which the government does have jurisdiction. Yet, the effect would be to increase preservation of wetlands that Congress could not directly regulate.

Arguably, once EPRs are created, trade in the EPRs becomes a form of interstate commerce, justifying federal regulation because isolated wetlands are now directly involved in interstate transactions. This may seem like a form of bootstrapping, but in principle, the federal government's power over commerce should not depend on whether the market in question is "natural" or created by government intervention. The existence of such an interstate market might also be helpful in persuading the Court that a statutory provision was

63. *See* Michael C. Blumm & Lucus Ritchie, Lucas*'s Unlikely Legacy: The Rise of Background Principles as Categorical Takings Defenses*, 29 Harv. Envtl. L. Rev. 321 (2005).
64. 583 N.E.2d 894 (Mass. App. Ct. 1992), *aff'd*, 597 N.E.2d 43 (Mass. 1992). *See also* M&I Marshall & Ilsley Bank v. Town of Somers, 414 N.W.2d 824, 825 (Wis. 1987).
65. 307 F.3d 978, 33 ELR 20056 (9th Cir. 2002).
66. *See* Caldwell & Segall, *supra* note 28. Some compensation might be required when the easements are established, but it should be small since any actual impact on the owner will not take place until the shoreline moves. An extensive discussion of the taking issues can be found in James G. Titus, *Rising Seas, Coastal Erosion, and the Takings Clause: How to Save Wetlands and Beaches Without Hurting Property Owners*, 57 Md. L. Rev. 1279 (1998).
67. 514 U.S. 549 (1995).
68. 529 U.S. 598 (2000).
69. ESA §9 (codified at 16 U.S.C. §1538 (2007)).
70. *See* Babbitt v. Sweet Home Chapter of Comms. for a Great Oregon, 515 U.S. 687, 25 ELR 21194 (1995) (upholding regulation limiting habitat modifications affecting endangered species).
71. Thus far, the ESA has withstood such constitutional attacks. *See, e.g.,* Alabama-Tombigbee Rivers Coal. v. Kempthorne, 477 F.3d 1250, 37 ELR 20040 (11th Cir. 2007); Rancho Viejo, LLC v. Norton, 323 F.3d 1062, 33 ELR 20163 (D.C. Cir. 2003); Gibbs v. Babbitt, 214 F.3d 483, 30 ELR 20602 (4th Cir. 2000).
72. CWA §404 (codified at 33 U.S.C. §1344 (2007)).
73. Solid Waste Agency of N. Cook County (SWANCC) v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 31 ELR 20382 (2001).
74. *Id.* at 171-72.
75. *See id.*

part of a comprehensive regulation of interstate commerce that merely happens to have some intrastate applications.[76]

At present, the Court seems to have less interest in stringently enforcing federalism limitations on congressional power. EPRs may offer valuable backup, however, should it become necessary to defend the constitutionality of congressional power over environmental issues. A system of EPRs demonstrates economically the interdependence between the ecological services provided in different locations. Judges who might be reluctant to view ecological interdependence as a sufficient basis for federal regulation may find a market for EPRs a clearer indication that a problem is inherently regional or national rather than local or intrastate.

As we have seen, EPRs can help shape constitutional outcomes in a variety of legal settings. Admittedly, it is unlikely that EPRs will transform the constitutional regime governing environmental law. Their effect will be felt at the margins, making the environmental side of the case a little bit stronger than it would otherwise be. But in today's Supreme Court, most of the battles are fought at the margins rather than through dramatic doctrinal changes. In these small-scale battles for environmental protection, EPRs may shift the balance in favor of constitutionality.

EPRs also offer an avenue for actors outside the federal judiciary—Congress, state legislatures, and state courts—to shift the boundaries of what the federal courts will allow. Thus, creative use of EPRs provides an opening for positive change during an era in which the federal judiciary itself may be inhospitable to environmental claims.

76. *Gonzales v. Raich*, 545 U.S. 1 (2005), held that a federal ban of an illicit drug could be applied to a purely local transaction, because the ban was part of a comprehensive system of regulating a heavily interstate activity.