Environmental Property Rights: What They Are and How They Can Protect the Environment

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In the United States, “property rights advocates” typically oppose environmental regulation. Yet, property law actually has great potential to support environmental protection. I will argue that property law concepts provide a valuable set of legal tools to protect the environment. These environmental property rights are either rights to prevent environmental degradation (such as conservation easements) or the creation of 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 (2010) (Arizona Legal Studies Discussion Paper No. 10-19). It should not be assumed that environmental property rights are always appropriate responses to specific environmental problems, and even when they are, the proper design of environmental property rights requires careful attention.

2) It is not surprising that recognition of these property rights may have constitutional significance. Constitutional law is often predicated on non-con-
At a fundamental level, environmental property rights allow courts to acknowledge connections and dimensions of value that are otherwise less visible to the legal system. When environmental property rights empower individuals or legislatures to prevent environmental degradation, they bring into concrete legal form the inchoate connections that exist between all of us and the environment. When other environmental property rights convert an environmental improvement in one location into a marketable asset, they may help courts “see” that part of the value of property is its ability to produce environmental services (which are indirectly compensated when the environmental property right is sold). A cap on pollution helps courts see that pollution is a collective problem involving the management of an important resource, not simply a restraint on individual polluters who are misbehaving.

In this way, intangible environmental values are translated into property interests, making it easier for judges to recognize their reality. This recognition, in turn, can change the outcome of some constitutional issues. Thus, environmental property rights can change the framing of constitutional cases and thereby impact outcomes.3)

In the first part of this talk, I will survey environmental property rights in the United States. Next, I consider whether it is really appropriate to call these “property” interests. Finally, the U.S. Constitution prohibits tak-

ing of private property without just compensation; I will discuss how environmental property rights could affect determinations of whether land or water rights have been taken unconstitutionally.

To determine whether property has been taken without just compensation, we must know: (1) what property interests the owner originally had and (2) what the owner is left with. Environmental property rights that are held by third parties can subtract from the owner’s original property rights. Environmental property rights that are granted to the property owner can actually add to the set of property rights enjoyed by the owner. This second category of environmental rights, which augment the value of a property, undercut any claim that property has been taken without compensation. The remainder of this paper describes environmental property rights and then explains these constitutional arguments.

I. Types of Environmental Property Rights

An environmental property right can be defined as an enforceable interest deriving from an environmental asset such as air quality or an undisturbed forest. Environmental property rights are diverse and varied. Some environmental property rights are marketable; others are not. Some environmental property rights involve the power to prevent a third-party from impairing the environment. Others are created when an owner gives up the right to exploit an environmental asset; the owner can then transfer that right to the owner of some other property.

American law recognizes a surprising number of environmental property rights. A listing includes at least ten types of environmental property rights:
1. The Public Trust. Perhaps the environmental property right with the deepest historical roots in U.S./English law is the public trust doctrine, which limits the rights of public and private owners of certain lands. Historically, the doctrine developed to ensure public access 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. In some states, this right has been extended to parklands. For instance, if a property owner owns a beach and wants to expand his land further into the water, the public trust doctrine allows a citizen to sue to stop this action.

The leading case concerning this doctrine is *Illinois Central Railroad Co. v. Illinois*, in which the U.S. Supreme 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.”

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5) 146 U.S. 387 (1892).
Marks v. Whitney 7) illustrates the modern evolution of the public trust doctrine from Illinois Central’s emphasis on the right to commercial exploitation to the Court’s recognition that the public trust encompasses 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 rights to use water, so that the city of 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. Conservation Easements and Conservation Trusts. In American law, an easement is typically the right to use another person’s land, for example, by putting a power line or water pipe across the land. Conservation easements are used to prevent development of land. Conservation easements convey the right of the owner’s right to develop land to a third party. These easements are created by a conveyance from the owner of the land in question,9) usually voluntarily but sometimes under legal

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. Env. L. Rev. 5, 88-90 (2010).


9) 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
compulsion or governmental pressure. By 2005, over six million acres in the United States were subject to conservation easements. Violation of the easement can lead to vigorous remedies from the court. A related concept is the conservation trust fund, in which an endowment is created to support joint public-private conservation activities, often in developing countries.

3. Rolling easements. Climate change will cause 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. As the shoreline moves, the public’s rights move inward and the land owner’s rights retreat. Texas and North Carolina already recognize such easements. The moving seashore may eventually require existing buildings to be removed. With rolling easements in place, new easements will not have to be repeatedly nego-


11 Ann Harris Smith, Conservation Easement Violated: What Next? A Discussion of Remedies, 20 Fordham Env. L. Rev. 597, 597 (2010). An overview of controversies about conservation easements can be found in id. at 602-603

12 Id. at 611-621.


tiated and purchased as sea levels rise. Instead, owners of property near the sea shore will receive a small payment today in exchange for the rolling easements.

4. 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 hold-outs by local regulators;\textsuperscript{16} contracts between neighboring landowners, which also bind subsequent purchasers of the land;\textsuperscript{17} or other legal tools.\textsuperscript{18}

5. Tradable Permits. These are allowances which give the holder the right to emit a certain amount of pollution. Tradable permits exist only in the context of a legislatively created cap-and-trade scheme, which creates a market for the tradable permits. The permits have value because emissions are subject to an overall cap. Permits allow a firm that reduces its emissions to profit by selling the portion of its allowance that it does not use.\textsuperscript{19} 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 ten years.

\textsuperscript{16} Sara C. Bronin, Solar Rights, 89 BU L.Rev. 1217, 122-1231 (2009).
\textsuperscript{17} Id. at 1231-1239.
\textsuperscript{18} Id. at 2339-2357.
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. In modern American 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. In the U.S. tradable permits have been used successfully to reduce sulfur dioxide emissions, and they are a leading part of proposals for reducing carbon dioxide emissions.

6. Carbon offsets. Greenhouse gas offsets, also commonly called carbon offsets, allow an emitter to meet the requirements of a cap-and-trade scheme by purchasing a carbon reduction from a third-party who is outside the trading system. These offsets could take the form of reduced emissions from sources that are not included in the cap-and-trade scheme within the United States. They could also be reductions from countries outside the domestic cap-and-trade, 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, using agricultural techniques that enhance sequestration, or possibly artificial carbon capture.20)

7. Wetland mitigation credits. The inverse of pollution credits, mitigation credits create a “bank” of environmental resources. The bank pays the owner of land for restoring wetlands, and then holds the wetlands.

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When a developer wants to fill wetlands somewhere else, the developer has to pay the bank to for a corresponding amount of wetlands. In essence, mitigation credits require that a property owner that wants to destroy an environmental resource on their property will have to pay for the protection of that resource on someone else’s property.

The policy of the U.S. federal governments is to avoid any “net loss” of wetlands. Through legislation and regulation, the government requires that if a wetland is lost in one place then additional wetlands must be created. 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.21) 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.22)

8. Air Pollution Offsets. The equivalent of wetlands mitigation for air pollution is called an offset. Under the Clean Air Act, in certain areas, the operation of new stationary sources of pollution is permitted only if the overall level of air pollution is reduced. This is possible because a pollution reduction in a polluted area can be used to “offset” a new pol-

22) Fred Bosselman, Swamp Swaps: The Second Nature of Wetlands, 39 Env. L. 577, 579-580 (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 583-584.
lution source. Specifically, the law requires permits for the construction and operation of "new or modified major stationary sources" in certain polluted 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 ... so as to represent ... reasonable progress." Thus total emissions of each pollutant must be reduced even though a new source has been added. 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.

9. Transferable Development Rights (TDRs). TDRs exist in the context of zoning laws that limit a real estate developers ability to build however they choose. TDRs allow a real estate developer to transfer unused air space or density from one site to another. 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.”23) 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.24) These TDRs are now well-accepted aspects of land use plans by cities.

10. In-Stream Flow Rights. In the Western United States, water rights are normally the right to use water from a stream. Protecting fish and other life in the stream requires not using some of the water for other purposes. Water law is beginning to recognize the right to keep water in

23) Id. at 916-917.
the stream rather than using it for irrigation or drinking. In-stream flow rights entitle the owner of the right to limit use by owners of other water rights. Several Western states now recognize in-stream rights by statute within their water laws, or allow conversion of water rights to public in-stream rights. In another promising approach to preserving water bodies, “water trusts” are now being used to protect in-stream flow, allowing the government or the trusts themselves to acquire water rights.

II. Are “Environmental Property Rights” Actually a Form of Property?

Some people may wonder whether it is accurate to attach the “property” label to these various mechanisms for environmental protection. An environmental property right provides enforceable legal rights to control the use of some tangible resource, which seems to satisfy the ordinary meaning of the term “property.” Conservation easements, rolling easements, and conservation trusts are merely a twist on a well-established legal property interests, at least in U.S. law, and the public trust doctrine is a property rule that precedes the American Constitution. Classifying


these environmental property rights as types of property interests seems obvious.

Other environmental property rights are less closely tied to traditional property law. Whether they are “property” for legal purposes depends on the specific legal purpose. Although there does not yet seem to be direct legal precedent, a wetland mitigation credit or a tradable pollution permit would presumably be considered part of a decedent’s property that would pass by will or intestate succession like any other asset. The same would probably true in other state law contexts.

Environmental property rights are also clearly “property” in terms of triggering the procedural protections of the United States Constitution’s Due Process Clause. The Due Process Clause guarantees that “No person . . . shall be . . . deprived of life, liberty, or property, without due process of law.” The test for property in that setting is the existence of a “legitimate claim of entitlement.” The test is clearly satisfied by environmental property rights. A firm that acquires an environmental property right in compliance with applicable rules and regulations clearly has a legitimate claim of entitlement. For example, it is seems clear that the government could not terminate a tradable permit or invalidate a wetland mitigation credit without notice and an opportunity to be heard.

What about the Takings Clause of the U.S. Constitution? This clause guarantees that “nor shall private property be taken for public use, without just compensation.” The Korean Constitution contains a similar provision in Article 23 (2), which requires that “expropriation, use or restriction of private property for public necessity and compensation therefore shall be governed by law. Provided, that in such a case, just compensation shall be paid.” In this case, the question is whether the govern-

ment can “take” environmental property rights without compensation? Here, the picture is more complicated. Some environmental property rights, like conservation easements, are so close to traditional property rights that they are presumptively protected by the takings clause. It is less clear whether some of the more innovative environmental property rights are protected by the takings clause. The government that creates a legal interest such as a license can often terminate that interest without triggering the takings clause. Some environmental property rights, like tradable permits, may have clauses explicitly authorizing some degree of government modification or termination.

On the other hand, seizure of an environmental property right by a governmental entity different from the one that created the interest might be considered a taking. For example, even if the federal government has the right to terminate tradable permits created under the Clean Air Act, a state government seizing those permits from private owners for resale might have to pay compensation. Since no direct precedent currently exists on any of these issues, however, the status of specific environmental property rights as property requiring just compensation under the takings clause remains an open issue.

In short, whether an environmental property right is considered “property” for legal purposes depends on the specific legal context. The same interest might be considered property for purposes of the due process clause or laws governing transfer of property at death, but not considered property

30 See Nancy A. McLaughlin, Condemning Conservation Easements: Protecting the Public Interest and Investment in Conservation, 41 U.C. Davis. L. Rev. 1897 (2008).

31 Courts have not been receptive generally to claims of property rights arising out of government licenses, permits, or approvals. See, e.g., Palmyra Pacific Seafoods, L.L.C. v. United States, 561 F.3d 1361 (Fed. Cir. 2009) (no property right to fish in public waters).
for purposes of a taking claim if the government that created the interest changed its mind.

Putting aside legal technicalities, it seems natural to connect environmental property rights with the concept of property. For example, it would be very natural to say that a company “owns” wetlands mitigation credits or marketable pollution permits, or that the government “owns” the part of the beach that is reserved to the public under the public trust doctrine. Many environmental property rights can be bought and sold in markets, which makes them seem as much like property as government bonds or financial derivatives. This common sense aspect of environmental property rights is likely to help shape future judicial rulings as much as legal technicalities.

Now that we have surveyed the types of environmental property rights, we turn to an analysis of how environmental property rights might affect the question of whether land or water rights have been unconstitutionally restricted.

III. Environmental Property Rights and the Takings Issue

Under the U.S. Constitution, the government cannot take private property for public use without just compensation, similar to the Korean Constitution’s requirement that just compensation be paid for “expropriation, use or restriction of private property.” A taking may exist when the government has actually seized the land for its own, but it may also exist if the government has imposed harsh regulations on the land owner. The U.S. Supreme Court has not found it easy to determine when a regulation of
land use becomes a taking.

The Supreme Court currently employs three separate tests in regulatory takings cases. First, the Court finds a taking when the government mandates an on-going physical intrusion on private property, such as plane flight paths created by a municipal airport. 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. The second category, established in Lucas, 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, which requires a determination of whether the government regulation interferes with reasonable, investment-backed expectations for use of the property.

Takings doctrine can be a serious problem for preservation laws, such as those designed to prevent the destruction of wetlands or biodiversity. 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. The result is that these environmental regulations may

32) 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 Lazarus, Putting the Correct ‘Spin’ on Lucas, 45 Stan. L. Rev. 1411 (1993).

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require expensive compensation to landowners, and lawmakers may be less likely to implement them in the first place. Indeed, the U.S. Court of Appeals for the Federal Circuit has responded favorably to taking claims in a number of wetlands cases, granting compensation to owners of wetlands who have not been allowed to fill and develop them.\footnote{See, e.g., Palm Beach Isles Ass’n v. United States, 208 F.3d 1374 (Fed. Cir. 2000); Loveladies Harbor, Inc. v. United States, 28 F.3d 1171 (Fed. Cir. 1994).

\footnote{438 U.S. 104 (1978).

\footnote{438 U.S. at 137.

\footnote{Id.}}}

\textit{Penn Central Transportation Co. v. City of New York}\footnote{\textit{Penn Central Transportation Co. v. City of New York} (1978)} 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 Supreme Court’s first encounter with an environmental property right. In Penn Central, the owners of New York’s Grand Central Terminal were denied a permit to build an office building above the terminal because of New York’s landmark preservation law. The law limited the development of buildings designated a historic landmark, but created a transferable development right that could be used for other nearby development projects.

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 had been denied \textit{all} use of those pre-existing air rights.”\footnote{438 U.S. at 137.} 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.”\footnote{Id.} Thus, “while 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." 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” that could “render much of our regulatory takings jurisprudence a nullity.” 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 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.”

It is easy to imagine how other environmental property rights can be flexibly structured to prevent regulations from constituting a taking of private land. For instance, a grant of wetland mitigation credits could be considered to ameliorate the loss of development rights for a wetland. 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 weaken any taking claim.

Environmental property rights may also affect takings claims by defin-

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40) Id.
41) Id. at 750.
ing 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. For instance, in *Esplanade Properties, LLC v. City of Seattle*, a development company brought a takings claim challenge the state of Washington’s ban on construction in tidelands. The court rejected the claim, because the construction was inconsistent with the public trust. Since the proposed development was inconsistent with the public trust, the “plaintiff’s claimed property right never existed” and thus there was no taking. Similarly, once rolling easements are established, they would negate future takings claims as retreating shorelines trigger development limitations in new areas.

If a land owner’s interests are subject to an environmental property right held by the government or by a third-party, the owner’s reasonable expectations are limited accordingly. Nothing has been taken away from the owner, because he never had it in the first place. When a government action transmutes certain property rights into environmental property rights 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.

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44) 307 F.3d 978 (9th Cir. 2002).
45) Id. at 985.
Thus, when environmental property rights 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. Conclusion

We have seen that American law recognizes many kinds of environmental property rights. Unlike traditional property rights, these are not the right to share in profits or to use land for private purposes. Instead, they are rights to limit destruction of the environment or rights to profit from limitations on environmental harm. Although they may not be as familiar as traditional rights, many of these unconventional rights are economically valuable as well as useful in preserving the environment.

These new property rights change the boundaries of traditional boundary rights. For this reason, they can affect the determination of whether traditional property rights have been regulated to the point where compensation is required. Most legal systems recognize a difference between public law and private law. Environmental property rights cross that boundary. They are designed to further public purposes, and they may be created by environmental statutes. But they are also part of property law, a core part of private law. Thus, they require the attention of public law and private law experts.

These forms of property rights illustrate the need for creative thinking in environmental law. We cannot be content with traditional categories and ways of thinking. Instead, to meet the challenges of protecting the environment in the Twenty-First Century, we must be willing to use new ideas and to ignore traditional distinctions between areas of law. Hopefully, the
example of environmental property rights will encourage the development of other new ideas and changes in old ways of thinking about law.
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Board of Regents v. Roth, 408 U.S. 564, 577 (1972)


이 글은 환경규제에 대하여 헌법적 방어벽을 치기보다는, 모종의 재산권들이 현재 대법원이 세운 원칙에 의해 형성되어진 헌법적 장애의 극복을 사실상 용이하게 할 수 있음을 논하고자 하는 것이다.

이러한 환경재산권(EPRs)에는 (보전지역권과 같이) 환경에 대한 훼손을 막는 권리나 또는 (거래가능한 오염허가와 같이) 환경을 훼손할 수 있는 제한적 권리들이 있다.

여러 유용한 점들 가운데서도, 이들 재산권들은 원고적격, 공용수용과 연방의 통상권한영역에 있어 헌법이 더욱 친환경적 방향으로 나아가게 하는 전인차적 도움을 줄 수 있을 것이다.

주제어 : 환경재산권, 배출상한의 설정과 거래, 거래가능한 허가, 공공신탁원칙, 보전신탁

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