

UCLA

UCLA Journal of Environmental Law and Policy

Title

Private Takings of Endangered Species as Public Nuisance: *Lucas v. South Carolina Coastal Council* and the Endangered Species Act

Permalink

<https://escholarship.org/uc/item/7w39r2rj>

Journal

UCLA Journal of Environmental Law and Policy, 12(1)

Author

Murray, Paula C.

Publication Date

1993

DOI

10.5070/L5121018814

Copyright Information

Copyright 1993 by the author(s). All rights reserved unless otherwise indicated. Contact the author(s) for any necessary permissions. Learn more at <https://escholarship.org/terms>

Peer reviewed

Private Takings of Endangered Species as Public Nuisance: *Lucas v. South Carolina Coastal Council* and the Endangered Species Act

*Paula C. Murray**

TABLE OF CONTENTS

I.	INTRODUCTION	120
II.	TAKINGS JURISPRUDENCE	122
	A. Takings Jurisprudence Prior to <i>Lucas</i>	122
	1. Pure Regulatory Taking Analysis Post- <i>Penn Central</i>	125
	a. Economic Impact of the Regulation.....	125
	b. Interference with Investment-Backed Expectations	128
	c. Character of the Government Action ...	129
	2. <i>Nollan</i> and Takings Jurisprudence	131
	B. <i>Lucas</i> : The Supreme Court's Latest Word	133
III.	THE ENDANGERED SPECIES ACT AND TAKINGS JURISPRUDENCE	137
	A. The Endangered Species Act.....	137
	1. The Listing Process	138
	2. The Protection of Critical Habitat	139
	3. Prohibition Against "Taking" Species.....	141
	4. Section 10(a) Incidental Taking Authorization and Habitat Conservation Plans.....	142
	B. <i>Lucas</i> , Takings Jurisprudence and ESA Enforcement	145
	1. The Problem.....	145
	2. The Deprivation of All Economically Viable Use	148

* Associate Professor, Legal Environment of Business, Graduate School of Business, University of Texas.

3. Nuisance and Background Principles of Property	154
4. Scientific and Philosophical Approaches to the Protection of Endangered Species and Biodiversity	159
IV. CONCLUSION	164

I.

INTRODUCTION

Humanity is part of nature, a species that evolved among other species. The more closely we identify ourselves with the rest of life, the more quickly we will be able to discover the sources of human sensibility and acquire the knowledge on which an enduring ethic, a sense of preferred direction, can be built.¹

Trouble is brewing on this planet and in this country. More and more people are becoming aware of the necessity of protecting the environment and biodiversity. However, these crucial interests are careening toward a confrontation with the competing economic interests of landowners and developers. In theory, everyone favors the preservation of endangered species. No one wants to see the bald eagle, whooping crane, or California Condor driven to extinction by the acts of humankind. Nevertheless, when an individual's economic interest in real property is substantially diminished by the operation of environmental regulations, such as the Endangered Species Act (ESA),² the environmental crisis suddenly pales in comparison to the economic reality, at least in that person's eyes. In many instances the operation of the ESA will significantly affect the landowner's plans to develop her property. As she sees her economic investment and development plans sacrificed to protect a threatened or endangered species, she may look to the government for payment for her alleged loss by claiming a regulatory taking under the Fifth and Fourteenth Amendments. This Article examines the basis of this claim, and determines that such a claim is not warranted.

On June 29, 1992, the United States Supreme Court handed down its decision in *Lucas v. South Carolina Coastal Council*.³ The case was watched closely by both environmentalists and

1. EDWARD O. WILSON, *THE DIVERSITY OF LIFE* 348 (1992).

2. Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (1988) (codified as amended at 16 U.S.C. §§ 1531-1544 (1988)).

3. 112 S. Ct. 2886 (1992).

those interested in protecting private property rights. Although hailed by both sides as a victory,⁴ the *Lucas* opinion does little to clarify the takings doctrine.

At issue in the case was whether a South Carolina statute⁵ that generally precludes any construction on Lucas' beachfront property constituted a compensable taking under the Fifth Amendment.⁶ Although the holding in *Lucas* makes it easier for landowners to obtain compensation, it does so only if the governmental regulation completely eliminates the economic value of the property at issue.⁷ Landowners who were hoping the Court would make it easier to obtain compensation for a regulatory taking will find some help in *Lucas* to make that task easier, but they must still show that the property lacks any economic value.⁸ Even if the landowner is able to meet the burden of proving no economic value, compensation is not required if the regulatory agency can show that the common law of nuisance or background principles of the state's property law could be invoked to prevent the landowner's activity.⁹ However, environmentalists should not view *Lucas* as a clear victory. Although the ESA and other conservation statutes and regulations may trigger takings jurisprudence if the regulation substantially diminishes the value of the property, there is no guarantee that a court will equate protection of threatened or endangered species with prevention of a public nuisance.

This Article will focus on the law of takings as it applies to the ESA. The first part of the Article will review pre-*Lucas* takings

4. See Paul M. Barrett, *Supreme Court Supports Rights of Landowners*, WALL ST. J., June 30, 1992, at A3. Paul Kamenar of the Washington Legal Foundation called the decision a "bright jewel that advances property-rights principles"; whereas David Gardiner of the Sierra Club stated that the decision "rejects the real estate, oil and mining companies' attempt to harm their neighbors and reaffirms the Constitution's good-neighbor policy." *Id.*

5. In 1988 the South Carolina legislature enacted the Beachfront Management Act. S.C. CODE ANN. § 48-39-250 *et. seq.* (Law. Co-op. Supp. 1990). Under the Act, the newly created South Carolina Coastal Council "was directed to establish a 'baseline' connecting the landward-most 'point[s] of erosion . . . during the past forty years' in the region of the Isle of Palms that includes Lucas's lots." *Lucas*, 112 S. Ct. at 2889.

6. "[P]rivate property [shall not] be taken for public use without just compensation." U.S. CONST. amend. V.

7. "We think, in short, that there are good reasons for our frequently expressed belief that when the owner of real property has been called upon to sacrifice *all* economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking." *Lucas*, 112 S. Ct. at 2895.

8. *Id.*

9. *Id.* at 2900-02.

jurisprudence. The second part will focus on the *Lucas* decision and its effect on the law of takings. The third part will examine the ESA as impacted by takings jurisprudence and *Lucas*.

II.

TAKINGS JURISPRUDENCE

A. *Takings Jurisprudence Prior to Lucas*

Unfortunately the takings jurisprudence prior to *Lucas* (and arguably post-*Lucas*) is, at a minimum, confusing and, at most, incomprehensible. The problem stems from the fact that the Supreme Court has never developed a rigorous intellectual framework for takings decisions. Each takings decision does not necessarily build on the last. As the Court has admitted, these takings decisions are "essentially ad hoc, factual inquiries."¹⁰ Because the cases were decided on an ad hoc basis, courts and legal scholars have had a particularly difficult time in determining when a compensable taking is involved.

The clearest example of a taking is one in which the government, through the power of eminent domain, acquires title to real property.¹¹ The governmental entity, in the formal condemnation proceeding, must pay "just compensation" to the landowner. For many years this was the only type of "taking" envisioned by the courts.¹² Today, however, a taking can also involve government regulation that substantially interferes with the landowner's economic interest.¹³ These regulatory takings are most troublesome because under its police power the government has a limited right to regulate land use without payment of

10. *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

11. See generally JULIUS L. SACKMAN, *NICHOLS' THE LAW OF EMINENT DOMAIN* (3d rev. ed. 1985).

12. The founding fathers probably did not envision a taking in any other manner than a physical one. See Joseph M. Cormack, *Legal Concepts in Cases of Eminent Domain*, 41 *YALE L.J.* 221, 225 (1931) ("[D]uring the early development of the law of this country a purely physical conception of the process of condemnation was amply sufficient."); see also *Lucas*, 112 S. Ct. at 2892 ("Prior to . . . [*Mahon*], it was generally thought that the Takings Clause reached only a 'direct appropriation' of property.").

13. *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922). A regulatory taking is a type of "inverse condemnation." A property owner brings an inverse condemnation cause of action for compensation for a taking when no formal condemnation proceeding has been instituted by the governmental entity. Inverse condemnation was first authorized in *United States v. Lee*, 106 U.S. 196 (1882), in which the Court held that sovereign immunity did not bar a suit against the United States to recover property (or compensation) taken for public use without formal condemnation proceedings.

compensation. Thus, the problem can be defined as Justice Holmes stated in *Pennsylvania Coal Co. v. Mahon*:¹⁴ “[W]hile property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.”¹⁵ Unfortunately, there is no absolute test as to what is “too far.” Thus, the entire body of regulatory taking law comes down to an attempt to determine when a regulation goes “too far” and becomes an invalid exercise of governmental police power.

Although usually cited first in the area of regulatory takings, *Mugler v. Kansas*¹⁶ was not a takings case. The Supreme Court had not yet “incorporated” the Takings Clause into the Fourteenth Amendment for application to the states. *Mugler* was a due process case, involving a statute effectuating a newly adopted article in the Kansas Constitution prohibiting the “manufacture and sale of intoxicating liquors.”¹⁷ The statute drove Mr. Mugler out of the brewing business, which until that time had been perfectly legal. The Court upheld the statute, stating:

A prohibition simply upon the use of property for purposes that are declared, by valid legislation, to be injurious to the health, morals, or safety of the community, cannot, in any just sense, be deemed a taking or an appropriation of property for the public benefit. Such legislation does not disturb the owner in the control or use of his property for lawful purposes, nor restrict his right to dispose of it, but is only a declaration by the State that its use by any one, for certain forbidden purposes, is prejudicial to the public interests.¹⁸

Although *Mugler* was clearly a due process case, it was a precursor to the regulatory takings cases that followed and continue today. Certainly, the regulation of private property by the ESA is an echo of the facts of *Mugler* — a governmental regulation of an action prejudicial to public interests which results in the loss of economic expectation to the landowner. Much of the confusion in the area of regulatory takings is based on the Court’s interchanging the Takings Doctrine with Due Process.¹⁹

Finally in 1922, in *Pennsylvania Coal Co. v. Mahon*,²⁰ the Supreme Court held that a government regulation could affect a

14. 260 U.S. 393 (1922).

15. *Id.* at 415.

16. 123 U.S. 623 (1887) (quoting KAN. CONST. art. 15, § 10 (amended 1948)).

17. *Id.* at 624 (quoting KAN. CONST. art. 15, § 10 (amended 1948)).

18. *Id.* at 668-69.

19. See *infra* notes 71-74 and accompanying text.

20. 260 U.S. 393 (1922).

landowner's rights so as to create a taking.²¹ Unfortunately, Justice Holmes' infamous "too far" language gave no guidance as to when a regulation went "too far" and became a taking.²² As the *Lucas* Court recognized: "In 70-odd years of . . . 'regulatory takings' jurisprudence [following *Mahon*], we have generally eschewed any "set formula" for determining how far is too far, preferring to 'engag[e] in . . . essentially ad hoc, factual inquiries.'"²³

Until the 1978 decision in *Penn Central Transportation Co. v. City of New York*,²⁴ takings jurisprudence was a muddle, with no real guidelines as to when governmental regulation went "too far" and became a taking. In *Penn Central*, the New York City Landmarks Preservation Commission refused to approve plans for construction of a fifty-story office building over Grand Central Terminal. The Court held that the refusal did not amount to a taking.²⁵ Justice Brennan identified several factors that were controlling in takings jurisprudence: (1) the economic impact of the regulation on the landowner; (2) the extent to which the regulation interferes with investment-backed expectations; and (3) the nature of the governmental action.²⁶

The Supreme Court further defined the nature of the governmental action factor in *Loretto v. Teleprompter Manhattan CATV Corp.*²⁷ The Court held that the Takings Clause was violated when a governmental regulation authorized an uncompensated

21. *Id.* at 415.

22. Justice Holmes stated:

We are in danger of forgetting that a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way of paying for the change. As we already have said, this is a question of degree — and therefore cannot be disposed of by general propositions.

Id. at 416; see generally RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN 63 (1985) (Holmes later regretted the "too far" language.).

23. *Lucas v. South Carolina Coastal Council*, 112 S. Ct. at 2893 (quoting *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978) (quoting *Goldblatt v. Hempstead*, 369 U.S. 590, 594 (1962) (alterations in original)).

24. 438 U.S. 104 (1978).

25. *Id.* at 138.

26. *Id.* at 124 ("A 'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government [citation omitted], than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good.").

27. 458 U.S. 419 (1982). In *Loretto* the Court found that a New York statute requiring landlords to allow cable companies to install cable facilities in the apartment buildings constituted a taking even though only approximately 1 1/2 cubic feet of the property were actually occupied. *Id.* at 438.

permanent physical occupation of the property.²⁸ Because a permanent physical occupation of the property is never a valid exercise of police power, there is no longer a need to balance the other factors set out in *Penn Central*.²⁹ Thus, after *Loretto*, takings jurisprudence was divided into three separate parts: (1) outright physical takings; (2) physical takings by regulation (allowing permanent physical use by third parties); and (3) pure regulatory takings (prohibiting or requiring specific uses of property).³⁰ The first two categories are clearly compensable, while the third continues to be mired in ad hoc analysis.

1. Pure Regulatory Taking Analysis Post-*Penn Central*

The court in *Penn Central* focused on three significant factors in evaluating regulatory takings:

The *economic impact* of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct *investment-backed expectations* are, of course, relevant considerations. So, too, is the *character of the governmental action*. A "taking" may more readily be found when the interference with property can be characterized as a physical invasion by government, than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good.³¹

Each of these factors will be discussed in relation to the post-*Penn Central* takings cases.

a. *The Economic Impact of the Regulation*

The Court in *Penn Central* noted that severe economic loss alone was not enough to automatically constitute a taking. The Court cited examples of governmental regulation that adversely affected the economic value of property. Zoning regulations were cited as the classic example of this type of regulation.³² The Court also cited *Miller v. Schoene*,³³ in which it upheld a state

28. *Id.* at 426.

29. *Id.* at 433-35.

30. R.S. Radford, *Regulatory Takings Law in the 1990's: The Death of Rent Control?*, 21 Sw. U. L. Rev. 1019, 1024 (1992).

31. *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978) (emphasis added) (citations omitted).

32. *Id.* at 125. The Court cites *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) (prohibition of industrial use), *Gorieb v. Fox*, 274 U.S. 603 (1927) (requirement that portions of parcels be left unbuilt), and *Welch v. Swasey*, 214 U.S. 91 (1909) (height restriction), as examples of permissible government regulation.

33. 276 U.S. 272 (1928).

statute requiring red cedar trees to be cut down in order to prevent production of a red cedar rust that was fatal to nearby apple trees. Yet, the Court did not compensate the owners for the trees or for the reduced market value of the whole property.³⁴ The Court in *Miller* found that the state was within "its constitutional powers by deciding upon the destruction of one class of property [without compensation] in order to save another which, in the judgment of the legislature, is of greater value to the public."³⁵

The Court in *Penn Central* emphasized that the property as a whole, and not individual parts, must be considered in determining economic impact. "'Taking' jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated."³⁶ The Court in 1979, in *Andrus v. Allard*,³⁷ further elaborated on this theme. The challenged regulation in *Andrus* was the Eagle Protection Act, which prohibited the sale of any object containing eagle feathers, even those legally obtained before the effective date of the Act. The Court found no taking, holding "the denial of one traditional property right does not always amount to a taking. At least where an owner possesses a full 'bundle' of property rights, the destruction of one 'strand' of the bundle is not a taking, because the aggregate must be viewed in its entirety."³⁸ Thus, even if the most valuable strand in the bundle of property rights is no longer viable, if some of the "bundle" remains — for example, the right to charge admission to see the feathers, or the right to donate or devise the feathers — then there is no taking.³⁹

The next application of the *Penn Central* economic impact criteria was *Agins v. City of Tiburon*⁴⁰ in which the Court upheld an open space zoning ordinance limiting the number of homes that could be built on the landowner's tract.⁴¹ Justice Powell, writing

34. *Id.* at 279.

35. *Id.*

36. *Penn Central*, 438 U.S. at 130.

37. 444 U.S. 51 (1979).

38. *Id.* at 65-66. Professor Epstein argues that *Andrus* involves not merely diminution in value but the loss of a property right that equates to a partial taking for which compensation is required. EPSTEIN, *supra* note 22, at 76.

39. *Andrus*, 444 U.S. at 66. *But see* *Hodel v. Irving*, 481 U.S. 704 (1987) (total abrogation of right to pass property by devise or descent held to be a taking).

40. 447 U.S. 255 (1980).

41. *Id.* at 259. The ordinance limited development on the five-acre tract to between one and five homes. The plaintiffs challenged the enactment of the statute as a taking; they had not applied for a development permit. *Id.* at 260.

for the Court, held that the application of the statute to a property

effects a taking if the ordinance does not substantially advance legitimate state interests, or denies an owner economically viable use of his land. The determination that governmental action constitutes a taking is, in essence, a determination that the public at large, rather than a single owner, must bear the burden of an exercise of state power in the public interest.⁴²

Thus, in order to be found to be a taking by its mere enactment, a statute must be shown to be either (1) an impermissible use of the government's police power⁴³ or (2) a denial of the owner's "economically viable use" of the property. The Court's language fails to clarify whether "economically viable use" means *all* economic use or only a substantial portion; however, it seems that the Court means *all* economic use.⁴⁴

Agins also illustrates that plaintiffs challenging a statute on its face will have to demonstrate the economic impact of the statute on the property. The plaintiff will have a much easier task demonstrating the economic impact if she can show that the statute "as applied" to her property causes severe economic hardship. In 1987 the Court in *Keystone Bituminous Coal Ass'n v. DeBenedictis*⁴⁵ found that the plaintiffs had an "uphill battle" making a facial attack on a statute that barred the mining of certain coal in order to avoid surface subsidence.⁴⁶ The Court found that there was an "important distinction between a claim that the mere enactment of a statute constitutes a taking and a claim that the particular impact of government action on a specific piece of property requires the payment of just compensation."⁴⁷ *Key-*

42. *Id.* at 260 (citations omitted).

43. This is very similar to the substantive due process standard. A regulation will be upheld unless found to be "clearly arbitrary and unreasonable, having no substantial relation to the public health, safety, morals or general welfare." *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 395 (1926). See generally Katherine E. Stone & Philip A. Seymour, *Regulating the Timing of Development: Takings Clause and Substantive Due Process Challenges to Growth Control Regulations*, 24 *LOY. L.A. L. REV.* 1205, 1224-29 (1991).

44. Unfortunately, even in *Lucas* the Court cites *Agins*, among other cases, for the proposition that categorical treatment is appropriate if the regulation denies the owner *all* economically beneficial use of the property, but then in a footnote comments on how difficult it is to distinguish between deprivation of all economic use and mere diminution of the property as a whole. *Lucas v. South Carolina Coastal Council*, 112 S. Ct. at 2894 n.7; see also *infra* notes 163-84 and accompanying text.

45. 480 U.S. 470 (1987).

46. *Id.* at 495-96.

47. *Id.* at 494.

stone Bituminous echoed the Court's holding in *Hodel v. Virginia Surface Mining & Reclamation Ass'n, Inc.*:⁴⁸ "The test to be applied in considering [a] facial challenge is fairly straightforward. A statute regulating the uses that can be made of property effects a taking if it 'denies an owner economically viable use of his land'"⁴⁹

Obviously, the next question is when, if ever, would the mere enactment of a statute deny the owner an economically viable use of her property? In *First English Evangelical Lutheran Church v. County of Los Angeles*,⁵⁰ the Court found that even if a taking were only temporary, a total denial of all use of a property "without payment of fair value for the use of the property during [the temporary taking] would be a constitutionally insufficient remedy."⁵¹ The Court accepted, for purposes of the decision, that the Los Angeles ordinance denied the Church all economic use of the property, but remanded the case to the California Court of Appeal to determine if, in fact, all use was denied.⁵² On remand the California Court of Appeal determined that there was no taking because the ordinance allowed some recreational or agricultural uses of the property.⁵³ Under the *First English* view, it is very difficult for a landowner to show that there is absolutely *no* use she can make of her property.

b. *Interference with Investment-Backed Expectations*

Precisely how this factor differs from the economic impact of the regulation is not clearly understood. In *Penn Central*, where the factor was first delineated, the Court found that the landmark ordinance did not "interfere with what must be regarded as *Penn Central's* primary expectation concerning the use of the parcel," a railroad terminal.⁵⁴ In *Keystone Bituminous* the Court held that the coal mining restrictions did not interfere with investment-backed expectations. The Court stated:

When the coal that must remain beneath the ground is viewed in the context of any reasonable unit of petitioners' coal mining oper-

48. 452 U.S. 264 (1981).

49. *Id.* at 295-96 (quoting *Agins*, 447 U.S. at 260).

50. 482 U.S. 304 (1987).

51. *Id.* at 322.

52. *Id.* at 313.

53. *First English Evangelical Lutheran Church v. County of Los Angeles*, 258 Cal. Rptr. 893, 901-05 (Cal. Ct. App. 1989) ("[during] this period . . . [the] property could be used for agricultural and recreational uses"), *cert. denied*, 493 U.S. 1056 (1990).

54. *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104, 136 (1978).

ations and financial-backed expectations, it is plain that petitioners have not come close to satisfying their burden of proving that they have been denied the economically viable use of that property. The record indicates that only about 75% of petitioners' underground coal can be profitably mined in any event, and there is no showing that petitioners' reasonable "investment-backed expectations" have been materially affected by the additional duty to retain the small percentage that [the regulation requires]. . . .⁵⁵

Therefore, the Court has made it clear that "investment-backed expectations" do not include loss of future profits or unreasonable expectations. As the Court has stated, "A 'reasonable investment-backed expectation' must be more than a 'unilateral expectation or an abstract need.'"⁵⁶ The Court also established that in areas of "extensive, ongoing regulation, there can seldom be a reasonable expectation that current rights will remain inviolate against future regulation. There are clearly few areas as subject to extensive ongoing regulation as land use."⁵⁷ In the area of endangered species regulation there has certainly been extensive and ongoing regulation. Is a landowner reasonable in her expectation that she can develop her land as allowed by previous regulation or should she expect that development may be partially or totally curtailed because of changing, more prohibitive environmental regulation? In today's extensive regulatory climate, the latter seems more reasonable than the former.

c. *Character of the Government Action*

The third criterion set forth in *Penn Central* involves examination of the character of the governmental action. Any time the governmental regulation results in a permanent, physical occupation of the property, a taking has more than likely occurred.⁵⁸ In the area of regulatory takings the Court in *Penn Central* recognized the difficulty of proving a taking "when interference [with the property] arises from some public program adjusting the ben-

55. *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 499 (1987).

56. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1005 (1984) (quoting *Webb's Fabulous Pharmacies, Inc. v. Beckworth*, 449 U.S. 155, 161 (1980)). *Monsanto* held that there was no reasonable investment-backed expectation that information submitted to the EPA would remain confidential. 467 U.S. at 1006-07.

57. *Stone & Seymour, Regulating the Timing of Development*, *supra* note 43, at 1223; see *Connolly v. Pension Benefit Guar. Corp.*, 475 U.S. 211, 226-27 (1985) (no reasonable investment-backed expectation that pension regulations would not be changed and additional liabilities imposed).

58. *Loretto*, 458 U.S. at 435 (if permanent physical occupation found then no need to examine economic impact or reasonable, investment-backed expectation criteria).

efits and burdens of economic life to promote the common good."⁵⁹

In *Keystone Bituminous* the Court found that the challenged regulation, the Subsidence Act, did not "merely involve a balancing of the private economic interests of coal companies against the private interests of the surface owners," but "that important public interests are served by enforcing a policy that is designed to minimize subsidence in certain areas."⁶⁰ The Court further found that the legislative purposes were "genuine, substantial, and legitimate,"⁶¹ noting that the action of the Pennsylvania legislature was an exercise of its police power to prohibit an activity akin to a public nuisance.⁶² This public nuisance discussion has generated interest in environmental circles⁶³ and is the source of much discussion in *Lucas*.⁶⁴

Agins adds another layer of confusion to an already confusing analysis. Departing from the *Penn Central* three-factor analysis, Justice Powell merely delineates two tiers of analysis. The governmental regulation, in order to withstand a takings challenge, must (1) substantially advance legitimate state interests, that is, it must be a permissible use of police power and (2) not deny the owner an economically viable use of the property.⁶⁵ The language used by the Court in *Penn Central* is similar, noting that a regulation may be a taking "if not reasonably necessary to the effectuation of a substantial public purpose."⁶⁶ Exactly what *Agins* added or changed to the regulatory taking analysis is unclear. Most commentators believed that the "substantially advance legitimate state interests" test must be satisfied *before* the three standards of *Penn Central* were addressed.⁶⁷ At this point

59. *Penn Central*, 438 U.S. at 124 (citations omitted).

60. *Keystone Bituminous*, 480 U.S. at 485.

61. *Id.* at 486. The Court attempts to follow the three criteria set forth in *Penn Central*, but also follows the *Agins* factors (substantial advancement of legitimate state interest and denial of economically viable use). *Id.* at 485.

62. *Id.* at 488; see *infra* notes 185-217 and accompanying text.

63. See, e.g., James E. Brookshire & Marc A. Smith, "Taking" a Closer Look, U. BALT. J. OF ENVTL. L. 1, 1-4 (1992) (the Court exhibits a deference for regulation of nuisance-like activity).

64. *Lucas*, 112 S. Ct. at 2897-2902 (South Carolina must identify principles of public nuisance law that prevent the use); see also *infra* notes 185-217 and accompanying text.

65. *Agins*, 447 U.S. at 260. For a discussion of the economic impact criteria of *Agins* see *supra* notes 40-44 and accompanying text.

66. *Penn Central*, 438 U.S. at 127.

67. See Craig A. Peterson, *Land Use Regulatory 'Takings' Revisited: The New Supreme Court Approaches*, 39 HASTINGS L.J. 335, 351 (1988); Radford, *supra* note

the Court should have clearly defined the standard for regulatory takings. Subsequently, the Court provided this definition in *Nollan v. California Coastal Commission*.⁶⁸

2. *Nollan* and Takings Jurisprudence

In *Nollan*, the plaintiffs applied to the California Coastal Commission for a permit to allow them to demolish a small bungalow on their beachfront property and replace it with a larger home. The Coastal Commission agreed to issue the permit on the condition that the Nollans convey an easement to the state allowing public access across a portion of their property.⁶⁹ The Nollans protested the condition as a regulatory taking without compensation under the Fifth Amendment.

In the opinion of the Court, Justice Scalia first noted that *Nollan* is not a physical takings case; had the Coastal Commission required the Nollans to give an easement for public access, there would clearly be a physical taking.⁷⁰ Thus, *Nollan* falls within regulatory takings jurisprudence. Justice Scalia cited *Agins*' two-tiered analysis, stating, "[W]e have long recognized that land-use regulation does not effect a taking if it 'substantially advance[s] legitimate state interests' and does not 'den[y] an owner economically viable use of his land.'" ⁷¹ The majority, in a footnote, makes a rather radical departure from prior takings scholarship. Until *Nollan* many scholars believed the "substantially advance legitimate state interests" test in *Agins* was equated with a substantive due process issue — the tests were virtually the same.⁷² Justice Scalia, in footnote three, stated:

Our opinions do not establish that these standards are the same as those applied to due process or equal protection claims. To the contrary, our verbal formulations in the takings field have generally been quite different. We have required that the regulation "substantially advance" the "legitimate state interest," sought to be

30, at 1025-26 ("This threshold test [the *Agins* criteria] must be resolved in the government's favor before turning to further analysis of the challenged regulation.").

68. 483 U.S. 825 (1987).

69. *Id.* at 827-28.

70. *Id.* at 831.

71. *Id.* at 834 (citing *Agins*, 447 U.S. at 260).

72. See, e.g., Norman Karlin, *Back to the Future: From Nollan to Lochner*, 17 Sw. U. L. Rev. 627, 630-32 (1988) (noting that the burden *Nollan* places on the government is virtually the same as substantive due process test); Stone & Seymour, *supra* note 43, at 1229-33 (due process considerations deeply imbedded in takings jurisprudence).

achieved, not that "the State 'could rationally have decided' that the measure adopted might achieve the State's objective."⁷³

Thus, the Court in *Nollan* declared that regulation must pass heightened judicial scrutiny. In the area of due process the standard of review of the state's police power is that the legislature might have thought that the regulation would achieve the state's goal.⁷⁴ The Court aptly notes that the standards for "legitimate state interest" have not been set, but the Court points to several regulations in other cases that have passed judicial muster: scenic zoning in *Agins*; landmark preservation in *Penn Central*; and residential zoning in *Euclid*.⁷⁵ The *Nollan* Court assumed, *arguendo*, that the Coastal Commission, under the police power, could develop regulations that further such public objects as to prevent beach congestion and protect the beach view.⁷⁶ The Court then determined whether the state action (the easement condition) actually advanced the public objective. As one commentator has stated, "The only real purpose . . . was to obtain a government easement without compensation under the guise of attempting to mitigate an effect of reduced visual and psychological access to the coast brought about by the plaintiff's building plans."⁷⁷ The dissenting opinion of Justices Brennan and Marshall focused on the strict scrutiny of the regulation, and found even under the new standard set out in *Nollan* that the nexus between the state action and public purpose was "substantial."⁷⁸

After *Nollan*, it is clear that the Court has turned the tide of takings jurisprudence. No longer will the state be able to casually assume that its regulation will be given judicial deference. Now the government must affirmatively prove that the regulation substantially advances a legitimate state purpose. Equally clear is that the Court will employ some level of heightened judicial scrutiny in evaluating the government's action, and that this scrutiny will take place before the *Penn Central* factors are applied. The most recent Supreme Court takings case, *Lucas v.*

73. *Nollan*, 483 U.S. at 834 n.3 (citations omitted).

74. *Williamson v. Lee Optical of Oklahoma, Inc.*, 348 U.S. 483, 487-88 (1955); see also *Day-Brite Lighting, Inc. v. Missouri*, 342 U.S. 421, 423 (1952) ("Our recent decisions make it plain that we do not sit as a super-legislature to weigh the wisdom of legislation. . .").

75. *Nollan*, 483 U.S. at 834-35.

76. *Id.* at 835.

77. Peterson, *supra* note 67, at 355.

78. *Nollan*, 483 U.S. at 849-50 (Brennan, J., dissenting).

South Carolina Coastal Council,⁷⁹ clearly illustrates that the Court will use the *Agins* two-tier test as the litmus test that must be passed before the *Penn Central* factors come into play.

B. Lucas: *The Court's Latest Word*

In 1986, David Lucas paid \$975,000 for two beachfront lots on the Isle of Palms in Charleston County, South Carolina, on which he intended to build expensive residential homes. In 1988 the South Carolina legislature enacted the Beachfront Management Act⁸⁰ which prohibited Lucas from erecting any permanent structures on his lots. Lucas filed suit contending that the Act's bar on construction was a taking of his property without just compensation under the Fifth and Fourteenth Amendments. Lucas did not contest the validity of the Act as an exercise of the police power of the state, but "contended that the Act's complete extinguishment of his property's value entitled him to compensation regardless of whether the legislature had acted in furtherance of legitimate police power objectives."⁸¹ The trial court found that the Act rendered Lucas' lots valueless and thus they had been taken by operation of the Act. The trial court ordered the State to pay Lucas \$1,232,387.50 as "just compensation."⁸²

The South Carolina Supreme Court reversed this decision.⁸³ The Court found that since Lucas did not make a direct attack on the validity of the statute, it was bound to accept the findings of the South Carolina legislature that new construction in the beachfront area would threaten a public resource. The Court found no compensation due when the regulation was designed to prevent serious public harm, no matter what the effect on the property's value.⁸⁴

The United States Supreme Court granted certiorari.⁸⁵ Justice Scalia delivered the opinion of the Court.⁸⁶ The Court initially identifies two specific areas of regulatory action that are compen-

79. 112 S. Ct. 2886 (1992).

80. S.C. CODE ANN. § 48-39-250 (Law. Co-op. Supp. 1990).

81. *Lucas*, 112 S. Ct. at 2890.

82. *Id.*

83. *Lucas v. South Carolina Coastal Council*, 404 S.E.2d 895 (S.C. 1991).

84. *Id.* at 898.

85. 112 S. Ct. 436 (1991).

86. He was joined by Chief Justice Rehnquist and Justices White, O'Connor and Thomas. Justice Kennedy filed a concurring opinion. Justices Blackmun and Stevens filed dissenting opinions. Justice Souter filed a separate statement. *Lucas*, 112 S. Ct. at 2888.

sable without engaging in the “ad hoc, factual inquiries” of *Penn Central*. The first area is physical taking, the second is where the regulation denies “all economically beneficial or productive use of the land.”⁸⁷ Clearly, the Court is applying the *Agins* two-tier analysis as the first step in determining whether state regulatory action violates the Fifth Amendment. If the regulation either does not substantially advance legitimate state interests or denies the owner all economically viable use of his land, then the Fifth Amendment has been violated and compensation is due.

The problem, of course, as Justice Scalia recognizes, is what precisely does “deprivation of all economically feasible use” mean? In footnote seven, Scalia gives an example that illustrates the magnitude of the problem:

Regrettably, the rhetorical force of our “deprivation of all economically feasible use” rule is greater than its precision, since the rule does not make clear the “property interest” against which the loss of value is to be measured. When, for example, a regulation requires a developer to leave 90% of a rural tract in its natural state, it is unclear whether we would analyze the situation as one in which the owner has been deprived of all economically beneficial use of the burdened portion of the tract, or as one in which the owner has suffered a mere diminution in value of the tract as a whole.⁸⁸

The only “clue” that Justice Scalia gives to this question is “how the owner’s reasonable expectations have been shaped by the State’s law of property, that is, whether and to what degree the State’s law has accorded legal recognition and protection to the particular interest in land with respect to which the takings claimant alleges a diminution in (or elimination of) value.”⁸⁹ The Court sidesteps this sticky problem in *Lucas* by noting that the property interest Lucas complained had been taken, a fee simple interest, is “an estate with a rich tradition of protection at common law,” and the trial court found that Lucas’ lots had no economic value.⁹⁰

The Court then turns to when, in the exercise of state police powers, a state may “take” property and not have to pay just compensation. The Court, in an elaborate analysis, finds that the South Carolina Supreme Court erred in holding that no compen-

87. *Id.* at 2893 (citing *Agins*, 447 U.S. at 260).

88. *Id.* at 2894 n.7.

89. *Id.*

90. *Id.*

sation was necessary when the regulation was designed to prevent a great public harm. The Court admits that in the past no compensation was due when the regulation was designed to prevent "harmful or noxious" uses, but this terminology was "simply the progenitor of our more contemporary statements that 'land-use regulation does not effect a taking if it "substantially advance[s] legitimate state interests"'"⁹¹ No longer can governmental entities merely rely on a carte blanche police power justification to avoid paying compensation. The Court puts the burden of proof squarely on the government to show that the regulation does "no more than duplicate the result that could have been achieved in the courts — by adjacent landowners . . . under the State's law of private nuisance, or by the State under its complementary power to abate nuisances that affect the public generally, or otherwise."⁹²

As in *Nollan*, the Court is clearly indicating that it will strictly scrutinize the exercise of police power. However, when a regulation prohibits *all* economically beneficial use of the land, the *Nollan* standard of "substantially advancing legitimate state interests"⁹³ is not the appropriate standard of review. The Court focuses on common law principles of public nuisance and/or property law that prevent the use that the landowner intends. The Court lists several factors that it considers important in a "total taking" inquiry: the degree of harm to public lands or resources, or neighboring private property; the social value of the proposed activity; and the ease with which the harm can be avoided by actions taken by the landowner and the government.⁹⁴ If, and only if, the use prohibited by regulation can be equated with a public nuisance, can the state avoid paying compensation for a total taking.

On its face, *Lucas* is a narrow decision, limited to regulations that deprive the landowner of "all economically valuable use"; however, therein lies the rub. When is property denied all economic use? As Justice Blackmun in his dissent points out, depri-

91. *Id.* at 2897 (quoting *Nollan*, 483 U.S. at 834, and *Agins*, 447 U.S. at 260).

92. *Id.* at 2900.

93. See *supra* notes 69-78 and accompanying text.

94. *Lucas*, 112 S. Ct. at 2901. The Court notes, "The fact that a particular use has long been engaged in by similarly situated owners ordinarily imports a lack of any common-law prohibition (though changed circumstances or new knowledge may make what was previously permissible no longer so)]. So also does the fact that other landowners, similarly situated, are permitted to continue the use denied to the claimant." *Id.* (citation omitted).

vation of all economic use cannot be objectively determined.⁹⁵ Even the majority admits that this determination will rely on how "property" is defined.⁹⁶ Clearly the Court has not clarified the law of takings, but created a new level of confusion as to what is property and when has all economically viable use been extinguished.

Equally troubling is the Court's use of the law of nuisance as an objective standard for determining when a total taking can be made without paying compensation. As Justice Blackmun points out, "Common-law public and private nuisance law is simply a determination whether a particular use causes harm There simply is no reason to believe that new interpretations of the hoary common law nuisance doctrine will be particularly 'objective' or 'value-free.'"⁹⁷

What is the post-*Lucas* status of the *Agins/Nollan* or the *Penn Central* tests? *Lucas* sets out two situations when compensation is always due: (1) physical occupation of the property; and (2) total deprivation of all economically viable use. *Lucas* also holds that even if all economic use of the property is prohibited, the state may still avoid paying compensation if the use prohibited rises to the level of a nuisance. In situations where there is not a total deprivation of economically viable use, there is no taking if the regulation substantially advances legitimate state interests and does not deny an owner economically viable use of his property (the *Agins/Nollan* tests). Again, what exactly is meant by economically viable use is unclear. After *Nollan* it appears that an owner can maintain an economical use of the property yet still be compensated for a taking if the nexus between the regulation and the public purpose is not "substantial." Exactly where the *Penn Central* criteria fit in post-*Lucas* and *Nollan* takings law is unclear. Perhaps even if the state regulation can pass the *Lucas* and *Nollan* tests, there is still an opportunity for the landowner to challenge the regulation on the *Penn Central* factors: the economic impact of the regulation; the interference with investment-backed expectations; and the character of the government action. However, although the *Penn Central* factors have not been expressly rejected by the Court, the likelihood of finding a compensable taking after the regulation makes it through the *Lucas/Nollan* mine field is remote.

95. *Id.* at 2908 (Blackmun, J., dissenting).

96. *Id.* at 2894 n.7.

97. *Id.* at 2914 (Blackmun, J., dissenting).

Despite the uncertainty of the status of takings law after *Lucas*, there is little doubt that challenges to government regulation as takings under the Fifth and Fourteenth Amendments will abate. As an attorney for the National Resources Defense Council stated:

Historically, claims that the right to property existed in the Constitution have been used to try and prevent a whole panoply of social reforms and health laws. What's different now is there is an emergence of a new interpretation of property rights law. It presents an extremely serious threat to much of the environmental reform legislation that has been enacted over the last 30 years.⁹⁸

As environmental regulation becomes more pervasive, more and more landowners will look to the takings clause for relief. The Endangered Species Act, as one of the most controversial environmental statutes, will be a primary target of landowners.⁹⁹

III.

THE ENDANGERED SPECIES ACT AND TAKINGS JURISPRUDENCE

A. *The Endangered Species Act*

The Endangered Species Act's primary purpose is to provide for the conservation and preservation of endangered species and the ecosystems on which they depend.¹⁰⁰ The ESA reflects Congress' concern that unchecked economic development threatens the very existence of various species of fish, wildlife, and plants.¹⁰¹ It was designed to check the alarming rate of extinctions brought about by development "untempered by adequate concern and conservation" of endangered and threatened species.¹⁰² The ESA contains two major provisions. Section seven requires federal agencies to insure that their activities will not jeopardize threatened or endangered species, and that their activities will not adversely modify the "critical habitat" of any en-

98. Keith Schneider, *Environment Laws Face a Stiff Test From Landowners*, N.Y. TIMES, Jan. 20, 1992, at A1, A8 (quoting Albert H. Meyerhoff).

99. "Congress never envisioned that the Endangered Species Act would be used by the preservationists to eliminate jobs and people's homes, and push people around the way it has." *Id.* at A1 (quoting Charles Cushman, Executive Director of the National Inholders Association).

100. Endangered Species Act of 1973, § 2(b), 16 U.S.C. § 1531(b) (1988) [hereinafter "ESA"].

101. ESA, § 2(a)(1), 16 U.S.C. § 1531(a)(1) (1988).

102. *Id.*

dangered or threatened species.¹⁰³ Section nine, the other major provision of the ESA, deals with the actions of any "person,"¹⁰⁴ prohibiting a broad spectrum of conduct, including the "tak[ing]" of an endangered or threatened species.¹⁰⁵

Courts recognize that this "pit bull" of environmental statutes is of primary importance to U.S. environmental policy and therefore have consistently enforced it for almost twenty years. Although no one questions the ESA's effectiveness in rescuing endangered species, many conservatives and landowner groups view the Act as "a cost-free, unchallengeable method that stops growth, development, and the use of natural resources in America."¹⁰⁶ The ESA is up for reauthorization in 1993, and there is no doubt that there will be a fierce battle between environmentalists and landowner groups over the rehaul.¹⁰⁷ Unless the ESA either is scrapped or is given a major pro-landowner overhaul, landowner groups will continue to use the takings issue under the Fifth and Fourteenth Amendments to deter extensive regulation without compensation.¹⁰⁸

1. The Listing Process

As enacted in 1973, the ESA covers fish, wildlife and plant species, but prior to 1973 only species on the brink of extinction were eligible for listing.¹⁰⁹ Congress recognized in 1973 that a species should not be on the brink of extinction in order to qualify for listing. Two classes of species listing were created: endangered (a species in danger of extinction) and threatened (a

103. *Id.* § 7(a)(2), 16 U.S.C. § 1536(a)(2); *see infra* notes 115-20 and accompanying text.

104. The "person" includes an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of any foreign government; any state, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States.

16 U.S.C. § 1532(13) (1988).

105. ESA, § 9, 16 U.S.C. § 1538 (1988); *see infra* notes 122-45 and accompanying text.

106. Robert J. Smith, *The Endangered Species Act: Saving Species or Stopping Growth?*, REGULATION: CATO REV. BUS. & GOV'T, Winter 1992, at 83, 84-85.

107. *See* Timothy Egan, *Strongest U.S. Environmental Law May Become Endangered Species*, N.Y. TIMES, May 25, 1992, at A1, A13.

108. In fact, some conservative commentators have surmised that the ESA takes precedence over the Takings Clause of the Fifth Amendment. *See* Smith, *supra* note 106, at 83.

109. Endangered Species Preservation Act of 1966, Pub. L. No. 89-669, § 1(c), 80 Stat. 926 (1966). Plant species were not eligible for listing under this Act.

species “likely to become an endangered species within the foreseeable future”).¹¹⁰ If one or more of the five following factors is satisfied, a species can be listed as endangered or threatened:

- (a) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (b) overutilization for commercial, recreational, scientific, or educational purposes;
- (c) disease or predation;
- (d) the inadequacy of existing regulatory mechanisms; or
- (e) other natural or manmade factors affecting its continued existence.¹¹¹

The Secretary¹¹² must decide to list an endangered or threatened species “solely on the basis of the best scientific and commercial” information available.¹¹³ The word “solely” was added in 1982 to clarify the intent of Congress. The House Conference Report makes it clear that Congress intended only scientific data to be used in the evaluation and listing process:

The principal purpose of [the 1982] amendments is to ensure that decisions in every phase of the process pertaining to the listing or delisting of species are based solely upon biological criteria and to prevent non-biological considerations from affecting such decisions.¹¹⁴

Thus, the ESA was clarified to emphasize that only scientific, and not economic, information can be used to determine the status of a species. Congress viewed the threat of continuing, unchecked species extinction to be of such importance that economic factors should not be weighed in the decision-making process.

2. The Protection of Critical Habitat

In addition to protecting endangered or threatened species through the listing process, the ESA also protects the “critical habitat” on which the endangered or threatened species de-

110. ESA, 16 U.S.C. § 1532(20) (1988).

111. *Id.* § 1533(a)(1)(A)-(E).

112. Section 4 of the ESA divides the responsibility of listed species between the Secretary of Interior (for terrestrial species) and the Secretary of Commerce (for marine species). The Secretary of Interior has designated the U.S. Fish and Wildlife Service (FWS) to act as his agent under the ESA, and the Secretary of Commerce has designated the National Marine Fisheries Service (NMFS) to act as his agent. *Id.* § 1533(a)(2).

113. 50 C.F.R. § 424.11(b) (1992) (emphasis added).

114. H.R. CONF. REP. NO. 835, 97th Cong., 2d Sess. 19 (1982), reprinted in 1982 U.S.C.A.N. 2860.

pende.¹¹⁵ Federal agencies are prohibited from conducting activities that would destroy or adversely affect the "critical habitat" of an endangered or threatened species.¹¹⁶ Critical habitat includes land containing any features that are essential to the conservation of the species, including food or water sources, shelter, and breeding and nesting or rearing sites.¹¹⁷ Prior to 1978, the Secretary could take only scientific evidence into account in designating critical habitat, but in 1978 Congress amended the ESA to require the Secretary to make critical habitat designations based not only on the best available scientific data, but also on the economic impact of such designation.¹¹⁸ Thus, the Secretary must weigh the economic impact of designating an area "critical habitat" against the benefit to the endangered or threatened species of the designation. Nevertheless, if the Secretary determines that failure to designate an area as "critical habitat" will result in the extinction of a species, then no economic factors may be used in the decision-making process.¹¹⁹

115. ESA, § 2(a)(1), 16 U.S.C. § 1531 (a)(1) (1988). "Critical habitat" is defined as

- (i) the specific areas within the geographical area occupied by the species, at the time it is listed . . . , on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and
- (ii) specific areas outside the geographic area occupied by the species at the time it is listed . . . , upon a determination by the Secretary that such areas are essential for the conservation of the species.

Id. at § 1532(5)(A).

116. ESA, § 7(a)(2), 16 U.S.C. § 1536(a)(2) (1988). The legislative mandate of § 7(a)(2) requires all federal agencies to

insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary . . . to be critical

Id. For a complete discussion of the obligation of federal agencies to avoid jeopardization of endangered or threatened species and their critical habitat, see generally James C. Kilbourne, *The Endangered Species Act Under the Microscope: A Closeup Look from a Litigator's Perspective*, 21 ENVTL. L. 499, 526-72 (1991).

117. 50 C.F.R. § 424.12(b) (1990) (Joint Endangered Species Regulations for listing and critical habitat).

118. ESA, § 2(b)(2), 16 U.S.C. § 1533(b)(2) (1988).

119. *Id.* The provision, as amended, dealing with critical habitat states:

The Secretary shall designate critical habitat . . . on the basis of the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

Further, the ESA requires the Secretary to include an evaluation of any activities which might adversely affect the habitat or, conversely, which might be negatively affected by the designation of "critical habitat."¹²⁰ Therefore, economic considerations may enter the decision to designate a "critical habitat," but not the decision to list a species as threatened or endangered.

3. Prohibition Against "Taking" Species

Section nine of the ESA expressly prohibits the "taking" of an endangered or threatened species¹²¹ by "any person."¹²² "Person" is defined broadly to include not only private individuals and entities, but also all federal, state, and local governmental entities.¹²³ "Taking" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect the endangered or threatened species.¹²⁴ Interestingly, the ESA does not prohibit all development in the critical habitat of an endangered or threatened species, but only development that may disrupt the behavioral patterns of the species and thus may be considered harassing or harming¹²⁵ activity prohibited under the Act as a "taking." A proposed construction or development project very easily could result in an illegal taking through an indirect, unintentional modification of habitat. The ESA provides for substantial criminal and civil penalties for prohibited takings.¹²⁶

Id.

120. *Id.* § 2(b)(8), 16 U.S.C. § 1533(b)(8).

121. *Id.* § 9(a)(1), 16 U.S.C. § 1538(a)(1).

122. ESA, 16 U.S.C. § 1532(13) (1988).

123. The term "person" means

an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of foreign government; any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States.

Id.

124. ESA, § 3(19), 16 U.S.C. § 1532(19) (1988).

125. Harm is defined by the U.S. Fish and Wildlife Service Regulations to mean an act or omission which actually injures or kills wildlife, including acts which annoy it to such an extent as to significantly disrupt essential behavioral patterns, which include, but are not limited to, breeding, feeding or sheltering; significant environmental modification or degradation which has such effects is included within the meaning of 'harm.'

50 C.F.R. § 17.3 (1992).

126. ESA, 16 U.S.C. § 1540 (1988) (civil penalties of up to \$12,000 per violation and criminal penalties of up to \$25,000 and one year in prison for each violation).

4. Section 10(a) Incidental Taking Authorization and Habitat Conservation Plans

A taking that "is incidental to, and not the purpose of the carrying out of an otherwise lawful activity" is not prohibited.¹²⁷ This exception is found in section 10(a) on incidental takings. Prior to 1982 when Congress amended the ESA, a private party or a state had no mechanism for determining if a proposed developmental activity was in violation of the Act or whether the individual or state could receive a permit to allow an incidental taking under the Act.¹²⁸ But the 1982 amendments allow a private party or state to consult with the Fish and Wildlife Service (FWS) to determine if otherwise lawful activity will result in an incidental taking of a listed species. Under section 10(a), the FWS may not issue an incidental taking permit unless it determines that the taking will not significantly reduce the chances of the species' survival and recovery.¹²⁹ However, obtaining an incidental taking permit under section 10(a) is very expensive and time consuming.¹³⁰ The private applicant must collect the biological data on the species potentially affected by the project, determine the scope of the "habitat conservation plan" (HCP) and make funds available to implement the conservation measures.¹³¹ The conservation plan must specify the following: 1) the impact of the taking; 2) steps to be taken to minimize the impact of the taking; 3) alternatives to the taking and why these alternatives are not acceptable; and 4) other measures that the Secretary may require. The FWS must provide for a public comment period and then accept or reject the plan.¹³² Before a section 10(a) permit can be issued, the Secretary must find that

- (1) the taking will be incidental;

127. *Id.* § 10(a), 16 U.S.C. § 1539(a)(1)(B). Section 7 of the ESA provides for incidental takings for federal actions; specifically it prohibits any federal agency for permitting, funding or carrying out any action that could jeopardize a threatened or endangered species. *Id.* § 1536(a)(2).

128. Endangered Species Act Amendments of 1982, Pub. L. No. 97-304, 96 Stat. 1411 (1982). As originally drafted in 1973, § 10(a) granted exceptions to the ESA for scientific purposes or to enhance the survival of listed species. Pub. L. 93-205, 87 Stat. 896 (1973).

129. 16 U.S.C. § 1539(a)(2)(B)(iv) (1988); 50 C.F.R. § 17.22(b)(2)(iv) (1989).

130. See generally Christopher H.M. Carter, Note, *A Dual Track for Incidental Takings: Reexamining Sections 7 and 10 of the Endangered Species Act*, 19 B.C. ENVTL. AFF. L. REV. 135, 161-65 (1991).

131. *Id.* at 162.

132. 16 U.S.C. § 1539(c) (1988).

- (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- (3) the applicant will ensure that adequate funding for the plan will be provided;
- (4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and
- (5) the measures, if any, required [by the Secretary in order to get the permit] . . . will be met.¹³³

The FWS estimates that the entire planning process of section 10(a) takes an average of two years.¹³⁴ This time lag and the expense of complying with the Act virtually prohibit many small landowners from developing their land. The first HCP authorized under the 1982 ESA amendments was the San Bruno Mountain HCP.¹³⁵ The San Bruno Mountain HCP was the result of a three-year negotiation between the landowners and developers, the environmental community, and local, state, and federal agencies in order to protect the Callippe Silverspot and Mission Blue butterflies.¹³⁶ Despite the fact that these diverse groups finally reached a consensus, there was no mechanism under the ESA at that time to authorize such a plan. Section 10(a) was amended to provide for that authorization. The legislative history of the amendments states that the purpose of 10(a) is to furnish "long-term commitments regarding the conservation of listed as well as unlisted species and long-term assurances that the terms of the plan will be adhered to and that further mitigation requirements will only be imposed in accordance with the terms of the plan."¹³⁷

Despite the well-intentioned motives behind section 10(a) and the development of HCPs, since 1982 only a handful of 10(a) permits have been granted.¹³⁸ Many more have been abandoned be-

133. *Id.* § 1539(a)(2)(B).

134. Carter, *supra* note 130, at 163.

135. Actually, as the legislative history of the amendments indicates, the San Bruno Mountain HCP was the model for the 1982 amendments and a standard for other HCPs. H.R. REP. NO. 835, 97th Cong., 2d Sess. 31 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2807, 2831.

136. *See generally*, Robert D. Thornton, *The Endangered Species Act: Searching for Consensus and Predictability: Habitat Conservation Planning Under the Endangered Species Act of 1973*, 21 ENVTL. L. 605, 622 (1991) (an overview of the San Bruno Mountain plan).

137. H.R. REP. NO. 835, 97th Cong., 2d Sess. 30 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2871.

138. The Coachella Valley HCP (near Palm Springs, California) was issued in 1986. The Delano Correctional Facility HCP (Delano, California) was issued in 1990. Thornton, *supra* note 136, at 626-29.

cause of the high costs of putting together a proposal, or because of an inability to reach a consensus among the diverse groups as to the form of the plan. In the past ten years the HCP concept has been met with increasing criticism from both the environmental and development communities. Any large scale HCP will take years of planning and studies. During this period development in the affected area, which can be quite large, is virtually halted. For example, in the hill country west of Austin, Texas, most development has stopped due to the emergency listing of the golden-cheeked warbler as endangered on May 4, 1990.¹³⁹ When the warbler was officially listed as an endangered species on December 27, 1990, the Secretary made no critical habitat designation for the golden-cheeked warbler because he could not determine the critical habitat.¹⁴⁰ Obviously this creates much uncertainty for landowners and has stymied all development in this area.¹⁴¹

It is unclear whether the HCP addresses the needs of just the currently listed species or also encompasses species that may be listed in the future. As one commentator noted, from both a development and environmental perspective:

HCPs work best where they can address the needs of all species that are likely to be listed as endangered or threatened within the identified planning area. Landowners are understandably reluctant to agree to significant land use restrictions to protect one species when the listing of a different species a year later will result in the imposition of new or different restrictions. This is especially the case with regard to very large development projects that may require a decade or more of planning before construction is commenced. Yet, it is in the interest of endangered species conservation to encourage large landowners to commit to long-term habitat protection.¹⁴²

The legislative history of section 10(a) indicates that Congress intended the conservation plans to address both listed and un-

139. 50 C.F.R. § 17.11 (1990).

140. *Id.*

141. See William T. Bray et al., *Environmental Permits: Land Use Regulation and Policy Implementation in Texas*, 23 ST. MARY'S L.J. 841, 856-57 (1992). Raw land prices in Austin fell dramatically in the late 1980s; the problem is determining what percentage of the drop was caused by the endangered species. Mike Todd, *Clash Between Public Good and Property Rights Is Nothing New*, AUSTIN AM.-STATESMAN, Mar. 1, 1992, at A1, A18.

142. Thornton, *supra* note 136, at 639-40.

listed species.¹⁴³ Unfortunately, no one can accurately predict which species may become threatened or endangered in the future.

A good example of the problem of single species conservation plans is the Stephens' Kangaroo Rat Interim HCP in Riverside County, California.¹⁴⁴ The cost of creating an HCP for the kangaroo rat will cost several hundred million dollars, yet there is no guarantee this HCP will protect other species that may become threatened or endangered. As one commentator noted, "There is very little enthusiasm in the development community for the expenditure of the enormous resources necessary to protect the remaining Stephens' kangaroo rats only to turn around and confront the same problem after the California gnatcatcher is listed."¹⁴⁵

Although the basic concept of the HCP is a good one, the process of developing the plan and securing section 10(a) approval from the FWS takes years and thousands, if not millions, of dollars. Also, there is no guarantee that the HCP will be approved. Because of the complete cessation of development caused by invocation of the ESA, sometimes for years, many landowners look to the takings clause for relief.

B. Lucas, *Takings Jurisprudence and ESA Enforcement*

1. The Problem

As enforcement of the ESA affects more and more private landowners and developers, outcry concerning the human and economic cost of enforcement has increased. One commentator notes:

The ESA's impact or potential impact on the construction of affordable housing and economic development in low-income communities is particularly troubling. A substantial number of development projects that benefit the poor will fall under the section 9 prohibitions on land use activity, as FWS and local officials increasingly recognize the large amount of development that adversely af-

143. "Although the conservation plan is keyed to the permit provisions of the Act which only apply to listed species, the Committee intends that conservation plans may address both listed and unlisted species." H.R. REP. No. 97-835, 97th Cong., 2d Sess. 30 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2860, 2871.

144. For a complete discussion of the Stephens' Kangaroo Rat HCP and its problems see Thornton, *supra* note 136, at 634-37.

145. *Id.* at 641.

fects the habitats of more than 500 endangered species in the United States.¹⁴⁶

One of the political hot potatoes of the 1992 Presidential campaign was the plight of the endangered northern spotted owl versus the logging industry in Washington and Oregon.¹⁴⁷ As enforcement of the ESA causes delays or actually halts construction projects or development and threatens the livelihood of thousands of individuals,¹⁴⁸ debate over the importance of economic and human factors in the listing of species will continue and grow even more heated.

Currently, the ESA clearly states that the threatened or endangered specification is to be based solely "on the basis of the best scientific and commercial data available,"¹⁴⁹ and economic or human impact is not to be considered.¹⁵⁰ However, there is growing sentiment that "the human cost of listing a species [in some cases] simply may be too high, and the world can make do with one less sub-species out of millions."¹⁵¹ At this time, there is no clear indication from the Clinton Administration whether it will recommend that the ESA be amended to provide for consideration of economic factors, but statements made during the campaign seem to indicate that President Clinton does not favor weakening the Act.¹⁵² Thus, with no foreseeable changes on the horizon, there is little doubt landowners and developers will chal-

146. Craig Anthony Arnold, *Conserving Habitats and Building Habitats: The Emerging Impact of the Endangered Species Act on Land Use Development*, 10 STAN. ENVTL. L.J. 1, 33 (1991).

147. See Michael Wines, *Bush, in Far West, Sides With Loggers*, N.Y. TIMES, Sept. 15, 1992, at A11 (Then-President Bush vowed to "put people ahead of owls."). See generally Elizabeth A. Foley, *The Tarnishing of an Environmental Jewel: The Endangered Species Act and the Northern Spotted Owl*, 8 J. LAND USE & ENVTL. L. 253 (1992).

148. The recent listing of two types of salmon living in the Snake River may have an impact on the operation of dams on the Snake and Columbia Rivers, and thus affect hydropower generation and farming throughout the Pacific Northwest. Potentially thousands of people could be affected. Virginia S. Albrecht & Thomas C. Jackson, *Battle Heats Up As Congress Begins Review of Endangered Species Act*, NAT'L. L.J., May 18, 1992, at S1, S2.

149. 16 U.S.C. § 1533(b)(1)(A) (1988).

150. See 50 C.F.R. § 424.11(c) (1990); see also *supra* notes 112-14 and accompanying text.

151. Albrecht & Jackson, *supra* note 148, at S3.

152. See Michel McQueen & Jeffrey H. Birnbaum, *Bush Promises to Give Economic Costs Greater Weight in Environmental Law*, WALL ST. J., Sept. 15, 1992, at A18.

lenge the effects of the Act as a taking under the Fifth and Fourteenth Amendments.¹⁵³

No one knows for certain whether the protection of endangered or threatened species through the operation of the ESA and the regulations it spawned will ever be considered a compensable taking under the Fifth and Fourteenth Amendments. There can be little doubt that Congress¹⁵⁴ and the courts consider the protection of endangered or threatened species of paramount importance. The Act itself recognizes that endangered or threatened species "are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people."¹⁵⁵ Two early cases demonstrate the power of the ESA to stop a development in its tracks. The Supreme Court upheld the ESA in 1978 in the most strident fashion in *Tennessee Valley Authority v. Hill*.¹⁵⁶ The Court held that, unless Congress declared otherwise, the construction and operation of the Tellico Dam on the Tennessee River had to be enjoined because it jeopardized an endangered species — the three-inch snail darter.¹⁵⁷ The Court was not swayed by the fact that \$78 million had already been spent on the dam. The Court stated, "[T]he plain intent of Congress . . . was to halt and reverse the trend toward species extinction, whatever the cost. This is reflected not only in the stated policies of the Act, but in literally every section of the statute."¹⁵⁸

At almost the same time, the whooping crane brought a stop to the operation of the Grayrocks Dam and Reservoir project in Wyoming in *Nebraska v. Rural Electrification Administration*.¹⁵⁹ The operation of the dam jeopardized the habitat of endangered whooping cranes downstream from the project. As a result of these two cases, Congress amended the ESA in 1978 to include an exemption process in order to balance the protection of endangered species and habitat against economic interests. This amendment established the Endangered Species Committee

153. See Smith, *supra* note 106, at 85-86 (federal government should pay landowners for endangered species habitat); Schneider, *supra* note 98, at A8.

154. See *supra* notes 112-14 and accompanying text.

155. 16 U.S.C. § 1531(a)(3) (1988).

156. 437 U.S. 153 (1978).

157. The snail darter was believed to require the Tennessee River's unique gravel substrate for its survival. The dam project was 80% complete when the suit was brought, three months after the listing of the snail darter as endangered. *Id.* at 162, 166.

158. *Id.* at 186.

159. 12 Env't Rep. Cas. (BNA) 1156 (D. Neb. Oct. 2, 1978).

(ESC), more commonly known as the "God Squad."¹⁶⁰ The function of the ESC is to evaluate whether a development project should be exempted from the ESA because it is of regional or national importance and because there are no reasonable alternatives to the project.¹⁶¹

Although this exception mechanism has been in place for over thirteen years, the "God Squad" has only waived the requirements of the ESA twice. In 1979 the Committee approved the Grayrocks Dam project after development of an artificial wetland for the whooping crane, and in 1992 it allowed logging on approximately 1700 acres of federally owned tracts that are habitat to the northern spotted owl.¹⁶² Clearly, this exemption process in the ESA is not available as a practical matter to individuals or private developers who find their plans for the use of their property halted by the operation of the Act. Thus, with no realistic hope of getting a "God Squad" exception, a landowner who finds a section 10(a) permit too expensive and time consuming to be of any real value may turn to the Takings Clause for compensation for the diminished value of her property.

2. The Deprivation of All Economically Viable Use

Following *Lucas*, a landowner alleging a Fifth Amendment taking because of the operation of the ESA must show that her property has been deprived of "all economically valuable use" by the regulation. In most instances the property will have an alternative economic use. For example, the farmer who wants to sell part of his property for a commercial purpose which is prohibited by the operation of the ESA will still have the right to farm the remaining property. However, one can envision a situation similar to the facts in *Lucas* where an owner of an unimproved lot located in a residential subdivision is prevented from building on the lot because the development will disturb the habitat of a

160. 16 U.S.C. § 1536(e)(1) (1988).

161. *See id.* § 1536(h)(1).

162. Keith Schneider, *Acting Grudgingly to Guard Owl, White House Backs New Logging*, N.Y. TIMES, Sept. 15, 1992, at A1, A8; *see also* Foley, *supra* note 147, at 272-73 (Committee's action indicates short-term economic factors outweigh species preservation). The Committee failed to grant an exemption for the Tellico Dam project, but Congress passed a specific exemption for that project. Energy and Water Development Appropriation Act of 1980, Pub. L. No. 96-69, 93 Stat. 3751, 3758 (codified at 16 U.S.C. § 1536(h) (1988)).

newly listed threatened or endangered species.¹⁶³ This situation may arguably deprive the landowner of all economically viable use of the land. Because the property is already in a residential subdivision, it is hard to envision another use. This scenario can easily be analogized to the facts of *Lucas*. In many instances, however, only a portion of the property is affected by the operation of the ESA, because only a portion will be designated habitat that must not be disturbed.

This scenario raises an interesting question that is not answered in *Lucas*: whether “deprivation of all economically viable use” refers to the loss of all economic use of the total acreage of the property or of only a portion of the property. Without a doubt, there will be many cases in which landowners can demonstrate that the ESA has rendered a significant portion of their property valueless. Traditional takings jurisprudence focuses on the diminution in value of the property as a whole.¹⁶⁴ In *Lucas*, Justice Scalia recognizes the problem, but does little to shed light on the solution. In footnote seven Scalia notes:

[T]he rule [deprivation of all economic loss] does not make clear the “property interest” against which the loss of value is to be measured. When, for example, a regulation requires a developer to leave 90% of a rural tract in its natural state, it is unclear whether we would analyze the situation as one in which the owner has been deprived of all economically beneficial use of the burdened portion of the tract, or as one in which the owner has suffered a mere diminution in value of the tract as a whole.¹⁶⁵

Clearly, how “parcel” is defined will have a tremendous effect on future takings cases, particularly those involved with environmental regulations. In fact, prior to the *Lucas* decision, this issue

163. This fact situation is exactly what has happened to many owners in the Austin, Texas, area because of the golden-cheeked warbler's and the black-capped vireo's (both endangered species) affinity for the cedar trees that grow throughout the hill country west of the city. The city and county are, in coalition with landowners, developers, environmentalists, and FWS, developing a § 10(a) habitat conservation plan. The plan, known as the Balcones Canyonlands Conservation Plan, calls for the setting aside of over 29,000 acres west of Austin as a nature preserve for Travis County endangered species. The plan would allow development outside of the preserve to continue by payment of development fees of \$600 per acre of development or \$3000 per acre of actual habitat taken. Zeke MacCormack, *Acres Awaiting: Williamson County Leaders Pushing for Changes in Endangered Species Act*, AUSTIN AM.-STATESMAN, June 21, 1992, at A1, A15.

164. See *Penn Central*, 438 U.S. at 124 (no taking where landmark regulation prevented building above landmark); *Pennsylvania Coal*, 260 U.S. at 413 (no taking where regulation limited amount of coal that could be mined).

165. *Lucas*, 112 S. Ct. at 2894 n.7.

was hotly debated in the Court of Claims in the context of denial of a dredge and fill permit — the so-called section 404 permit — under the Clean Water Act.¹⁶⁶ In *Florida Rock Industries, Inc. v. United States*,¹⁶⁷ the claims court held that the denial of a mining permit constituted a taking even though only ninety-eight acres out of 1560 were affected by the permit denial.¹⁶⁸ In a companion case, *Loveladies Harbor, Inc. v. United States*,¹⁶⁹ the claims court focused on 12.5 acres of a 250-acre tract, most of which was already in development, and held that denial of the section 404 permit on the 12.5 acres was a taking.¹⁷⁰ However, in another claims court case, *Ciampitti v. United States*,¹⁷¹ the court held that the entire forty-five acres, of which fourteen were considered wetlands, were to be considered in determining whether a taking had occurred, rather than just the wetland portion.¹⁷² The court stated:

In the case of a landowner who owns both wetlands and adjacent uplands, it would clearly be unrealistic to focus exclusively on the wetlands, and ignore whatever rights might remain in the uplands The effect of a taking can obviously be disguised if the property at issue is too broadly defined. Conversely, a taking can appear to emerge if the property is viewed too narrowly. The effort should be to identify the parcel as realistically and fairly as possible, given the entire factual and regulatory environment.¹⁷³

However, the *Lucas* case does nothing to resolve the parcel-as-a-whole controversy. Lower courts are left with virtually no guidance. As the court aptly notes in *Ciampitti*, the approach that must be utilized is one of realism and fairness; in other words, we are back to an ad hoc, case-by-case, factual determination of what is meant by no economic value in the “entire tract.”

With no clear guidance by the Supreme Court, lower courts will continue to use political and personal bias in deciding takings cases. These courts must continue to follow the pre-*Lucas* tak-

166. 33 U.S.C. §§ 1251-1387 (1988).

167. 21 Cl. Ct. 161 (1990).

168. *Id.* at 164. The court found that the mining operations would not pollute the Biscayne Aquifer in South Florida and, thus, were not a nuisance. *Id.* at 166-67.

169. 21 Cl. Ct. 153 (1990).

170. *Id.* at 160 n.9. The court states, “The drastic economic impact on plaintiffs’ property [the 12.5 acres], coupled with the court’s earlier determination of the lack of a countervailing substantial, legitimate state interest, forms the basis for a finding that there has been a taking.” *Id.* (citation omitted).

171. 22 Cl. Ct. 310 (1991).

172. *Id.* at 319.

173. *Id.* at 318-19.

ings jurisprudence in this area and look at the environmental regulation's effect on the entire tract owned by the landowner, not just its effect on certain portions. Nonetheless, the door is now open, most particularly in the environmental regulation area, for more and more landowners to challenge the regulation even if only a portion of the whole property is affected and the non-affected portion can be economically developed. If these cases are held by the lower courts to be takings, then the environmental policy of this country will be handicapped severely.

Even if a landowner can demonstrate that her entire property is affected by the operation of the ESA, the question still remains as to what is meant by lack of economic viability. Again, the majority in *Lucas* gives little, if any, guidance. Certainly David Lucas lost the highest and best use of his property, but did not lose the right to possess the property, exclude others from the property, alienate the property, and enjoy it in its natural state. As Justice Blackmun in his dissent in *Lucas* points out,

[P]etitioner can picnic, swim, camp in a tent, or live on the property in a movable trailer. State courts frequently have recognized that land has economic value where the only residual economic uses are recreation or camping. Petitioner also retains the right to alienate the land, which would have value for neighbors and for those prepared to enjoy proximity to the ocean without a house.¹⁷⁴

Clearly, the determination of what entails denial of "all economically beneficial or productive use of [the] land"¹⁷⁵ is of primary importance to landowners whose property's uses have been significantly affected by operation of the ESA. Justice Scalia gives a hint of how the Court may view this type of regulation:

On the other side of the balance, affirmatively supporting a compensation requirement, is the fact that regulations that leave the owner of land without economically beneficial or productive options for its use — typically, as here, by requiring land to be left substantially in its natural state — carry with them a heightened risk that private property is being pressed into some form of public service under the guise of mitigation of serious public harm.¹⁷⁶

While it is not altogether clear, Justice Scalia's statement seems to indicate that particularly when an environmental regulation,

174. *Lucas*, 112 S. Ct. at 2908 (citations omitted).

175. *Id.* at 2900.

176. *Id.* at 2894-95 (citing *Morris County Land Improvement Co. v. Parsippany-Troy Hills Township*, 193 A.2d 232 (N.J. 1963) (prohibition on filling marshland in order to create wildlife refuge)).

such as the ESA, requires that land be maintained in a natural state — meaning the landowner can no longer develop the land to its highest and best use — the no economic value standard has been met. Nevertheless, this is a fuzzy standard, and as one commentator has noted, “Reviewing courts will likely continue an ad hoc factual inquiry, balancing, as always, notions of injustice, fairness, and state police powers.”¹⁷⁷

In *Reahard v. Lee County*,¹⁷⁸ the Eleventh Circuit became one of the first lower courts to attempt to establish factors to be considered in evaluating whether a landowner has been denied all economic value by a regulation. *Reahard*, decided after *Lucas*, involved a forty-acre tract on which development was limited either to a single family dwelling or to recreational uses by the county comprehensive land use plan. The landowner wanted to develop the site as a subdivision. The district court held the adoption of the regulation to be a taking for which compensation was due.¹⁷⁹ The Eleventh Circuit held that the magistrate judge did not apply the correct legal standard for partial takings and failed to make adequate factual findings necessary for a proper takings analysis. The court notes two issues the factfinder must resolve in order to determine the question of denial of all economically viable use: (1) the economic impact of the regulation on the landowner; and (2) the extent the regulation interferes with the investment-backed expectation of the landowner.¹⁸⁰ The court then lists eight questions a proper takings analysis would address:

- (1) the history of the property — when was it purchased? How much land was purchased? Where was the land located? What was the nature of the title? What was the composition of the land and how was it initially used?;
- (2) the history of development — what was built on the property and by whom? How was it subdivided and to whom was it sold? What plats were filed? What roads were dedicated?;
- (3) the history of zoning and regulation — how and when was the land classified? How was use proscribed? What changes in classifications occurred?;
- (4) how did development change when title passed?;
- (5) what is the present nature and extent of the property?;
- (6) what were the reasonable expectations of

177. Barry I. Pershkov & Robert F. Housman, *In the Wake of Lucas v. South Carolina Coastal Council: A Critical Look at Six Questions Practitioners Should Be Asking*, 23 *Envtl. L. Rep. (Envtl. L. Inst.)* 10,008, 10,013 (1993).

178. 968 F.2d 1131 (11th Cir. 1992).

179. *Id.* at 1134.

180. *Id.* at 1136.

the landowner under state common law?; (7) what were the reasonable expectations of the neighboring landowners under state common law?; and (8) perhaps most importantly, what was the diminution in the investment-backed expectations of the landowner, if any, after passage of the regulation?¹⁸¹

These eight factors provide at least some guidance to lower courts in the determination of diminution of economic value; however, these factors are merely guideposts for the ad hoc factual inquiry that courts must engage in when attempting to ferret out the economic impact of a regulation.

Without a doubt the impact of the Endangered Species Act, as currently written, will result in the absolute prohibition of development of many tracts of unimproved property considered to be habitat of threatened or endangered species. The owners of such property will view *Lucas* as good news because, seemingly, the majority of the Court would consider that situation one in which the regulation virtually eliminated all economically beneficial uses of the property. The Court in *Lucas* clearly states that "when the owner of real property has been called upon to sacrifice *all* economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking."¹⁸² Nevertheless, landowner rejoicing may be premature.¹⁸³ According to the Court there is still a possibility that a landowner may suffer total diminution of economic value but not be compensated for a taking. If the regulation does "no more than duplicate the result that could be achieved in the courts — by adjacent landowners (or other uniquely affected persons) under the State's law of private nuisance, or by the State under its complementary power to abate nuisances that affect the public generally,"¹⁸⁴ then there is no taking and the landowner receives no compensation. The addition of a nuisance analysis to the already murky waters of takings jurisprudence is one more layer of uncertainty with which lower courts must grapple.

181. *Id.*

182. *Lucas*, 112 S. Ct. at 2895.

183. See Ted Gest & Lisa J. Moore, *The Tide Turns for Property Owners*, U.S. NEWS & WORLD REP., July 13, 1992, at 57 (compensation not automatic).

184. 112 S. Ct. at 2900; see also Jamee J. Patterson, *California Land Use Regulation Post Lucas: The History and Evolution of Nuisance and Public Property Laws Portend Little Impact in California*, 11 UCLA J. ENVTL. L. & POL'Y 175 (1993).

3. Nuisance and Background Principles of Property

The Court's invocation of nuisance and property law in *Lucas* was supposedly a step away from the harm/benefit analysis of earlier takings cases. As Justice Scalia points out "the distinction between 'harm-preventing' and 'benefit-conferring' regulation is often in the eye of the beholder."¹⁸⁵ The Court concludes that the South Carolina Supreme Court was too quick in accepting that the regulation was designed to prevent "harmful or noxious" uses of the property; "[h]armful or noxious use' analysis was . . . simply the progenitor of our more contemporary statements that 'land-use regulation does not effect a taking if it "substantially advance[s] legitimate state interests" . . .'"¹⁸⁶ The Court refuses to accept the opinion of the legislature as to the proper exercise of its police power. In the instance in which there is a total taking (no economic value remains), the mere recitation by the legislature that a regulation prevents a harmful or noxious use of the property will not be accepted at face value.¹⁸⁷

The justification for a total taking cannot be a newly enacted piece of legislation but must be based in the "background principles of the State's law of property and nuisance" already in place.¹⁸⁸ The Court gives two examples to clarify this unclear pronouncement: (1) the owner of a lake bed would not be compensated for denial of a permit to fill the bed if the effect of such operation would be to flood adjacent land; and (2) the owner of a nuclear facility would not be entitled to compensation if the facility was ordered closed because it was discovered to be situated on a earthquake fault.¹⁸⁹ But these examples are not particularly helpful because there appears to be alternative uses that can be made of the property, so there is no total loss of economic value.¹⁹⁰ Nevertheless, the Court does give some guidance as to the types of information to be analyzed in the nuisance/property

185. *Lucas*, 112 S. Ct. at 2897.

186. *Id.* (citations omitted).

187. *Id.* at 2899 ("'A fortiori' the legislature's recitation of a noxious-use justification cannot be the basis for departing from our categorical rule that total regulatory takings must be compensated. If it were, departure would virtually always be allowed.")

188. *Id.* at 2900.

189. *Id.*

190. The Court, in fact, recognizes that there are alternative uses for the property in both examples. As the Court states, "Such regulatory action may well have the effect of eliminating the land's only economically productive use, but it does not proscribe a productive use that was previously permissible under relevant property and nuisance principles." *Id.* at 2900-01. How this statement fits into the no eco-

law inquiry. Courts should determine: (1) the degree of harm to public land and/or resources; (2) the harm to adjacent private property caused by the proposed use; (3) the social value of the activities and suitability of the activities to the locale; and (4) the ease with which the harm could be avoided through actions of the landowner and the government or other landowners.¹⁹¹ Thus, the Court has moved the level of takings analysis to a higher plane when a landowner attempts to establish that her property has been deprived of all economic value. The standard that the regulation must “‘substantially advance’ the ‘legitimate state interest’”¹⁹² is no longer the proper standard of analysis in that situation. The Court indicates in *Lucas* that the legislature, as in the case of South Carolina, can too easily manipulate this standard by a determination at the time of enactment that the regulation “substantially advances legitimate state interests.”¹⁹³ As the Court rather sarcastically points out in footnote twelve, “Since such a [harm-preventing] justification can be formulated in practically every case, this amounts to a test of whether the legislature has a stupid staff. We think the Takings Clause requires courts to do more than insist upon artful harm-preventing characterizations.”¹⁹⁴

Therefore, given that there may be many instances in which the operation of the ESA will affect an entire parcel of real property and arguably reduce its economic value to zero, it remains unclear whether the killing or harassing of an endangered species violates background principles of state property law or constitutes a nuisance. Again one must look to sources other than *Lucas* for any clue about the answer to this question. The *Lucas* Court does not clarify what is meant by “background principles” of state property law. Seemingly, this terminology does not mean much beyond traditional nuisance jurisprudence.¹⁹⁵ Even the list of factors to be considered in this analysis is couched in

conomic value discussion is not clear, but it certainly indicates the lack of precision in the application of the terminology.

191. *Id.* at 2901.

192. *Nollan*, 483 U.S. at 834 n.3 (citations omitted).

193. As the Court in *Lucas* states: “Whether Lucas’s construction of single-family residences on his parcels should be described as bringing ‘harm’ to South Carolina’s adjacent ecological resources thus depends principally upon whether the describer believes that the State’s use interest in nurturing those resources is so important that any competing adjacent use must yield.” *Lucas*, 112 S. Ct. at 2898.

194. *Id.*

195. The Court’s “analysis is restricted to traditional principles of nuisance law.” Pershkov & Housman, *supra* note 177, at 10,010-11.

terms of nuisance.¹⁹⁶ Thus, this discussion must center on the common law of nuisance. Unfortunately, as Justice Blackmun in his dissent aptly points out, the law of nuisance is not exactly the picture of clarity.¹⁹⁷

Justice Blackmun recognizes that the majority's invocation of the common law of nuisance virtually ties the hands of legislatures as they attempt to adapt to the ever growing threat to the environment. As new information is learned, governments must have the ability to adopt new regulations to protect our environmental future without being shackled with the task of attempting to fit the threat into the "hoary" law of nuisance. Justice Stevens in his dissent in *Lucas* recognizes the threat the majority's approach poses to the environment:

Arresting the development of the common law is not only a departure from our prior decisions; it is also profoundly unwise. The human condition is one of constant learning and evolution — both moral and practical. Legislatures implement that new learning; in doing so they must often revise the definition of property and the rights of property owners New appreciation of the significance of *endangered species*, . . . the importance of wetlands, . . . and the vulnerability of coastal lands . . . shapes our evolving understandings of property rights.¹⁹⁸

How precisely must the protection of endangered species fit into the traditional law of nuisance? Unfortunately, there is no clear reference in the "impenetrable jungle"¹⁹⁹ of the common law of nuisance to environmental problems. Undoubtedly this is because environmental issues only became widely discussed and litigated in the mid to late twentieth century whereas most nuisance law emerged in the Middle Ages. Historically a public nuisance

196. See *supra* note 191 and accompanying text.

197. Justice Blackmun states in his dissent:

There is nothing magical in the reasoning of judges long dead. They determined a harm in the same way as state judges and legislatures do today. If judges in the 18th and 19th centuries can distinguish a harm from a benefit, why not judges in the 20th century, and if judges can, why not legislators? There simply is no reason to believe that new interpretations of the hoary common law nuisance doctrine will be particularly "objective" or "value-free."

Lucas, 112 S. Ct. at 2914.

198. *Id.* at 2921-22 (emphasis added).

199. This was originally Prosser's characterization of the law of nuisance. He stated, "There is perhaps no more impenetrable jungle in the entire law than that which surrounds the word 'nuisance.' It has meant all things to all people, and has been applied indiscriminately to everything from an alarming advertisement to a cockroach baked in a pie." W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 86, at 616 (5th ed. 1984).

sance was defined as "the doing of or the failure to do something that injuriously affects the safety, health, or morals of the public, or works some substantial annoyance, inconvenience, or injury to the public; behavior which unreasonably interferes with the health, safety, peace, comfort, or convenience of the general community."²⁰⁰

A public nuisance is a crime, but it may also be a tort if the plaintiff can prove she has suffered "special" injury as opposed to the rest of the public.²⁰¹ "Nuisance" comes from the French word for harm, and in England it came to be known as the tort against land.²⁰² As Dean Prosser states, "A public nuisance is a species of catch-all, low-grade criminal offense, consisting of an interference with the rights of the community at large, which may include anything from the blocking of a highway to a gaming-house or indecent exposure."²⁰³ When Prosser wrote this passage in 1966, he focused on the historic definitions of public nuisance, and thus did not deal with environmental problems as nuisances.²⁰⁴

Although, at common law, the definition of a nuisance did not include most of today's environmental problems, there is no doubt that the broad definition of public nuisance includes these problems. As one commentator notes, "Relatively constant historic principles of public nuisance liability are inherently flexible and uniquely capable of application to abate pollution, clean up contaminated sites, and recover damages in an ever expanding variety of ways."²⁰⁵ Even with today's panoply of environmental statutes and regulations the common law of public nuisance is used to fill in the gaps of environmental enforcement left by the regulations. In fact the doctrine of public nuisance has been used

200. 58 AM. JUR. 2D *Nuisances* § 35 (1974).

201. William L. Prosser, *Private Action for Public Nuisance*, 52 VA. L. REV. 997 (1966); see also David R. Hodas, *Private Actions for Public Nuisance: Common Law Citizen Suits for Relief from Environmental Harm*, 16 ECOLOGY L.Q. 883, 888-92 (1989) (discussion of the "special injury" rule).

202. Prosser, *supra* note 201, at 997.

203. *Id.* at 999.

204. Prosser does recognize pollution of a stream as a public nuisance if fish are killed as a result, but focuses on more traditional nuisances such as keeping of diseased animals, a malarial pond, public profanity, houses of prostitution, loud and disturbing noises, and obstructing a highway. *Id.* at 1000-01.

205. James A. Sevinsky, *Public Nuisance: A Common-Law Remedy Among the Statutes*, 1990 A.B.A. SEC. NAT. RESOURCES L. REP. 1.

successfully in situations where the federal statutory cause of action has failed.²⁰⁶

The *Second Restatement of Torts* defines a public nuisance as "an unreasonable interference with a right common to the general public."²⁰⁷ Included in this definition is conduct involving "a significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience";²⁰⁸ conduct "proscribed by a statute, ordinance or administrative regulation";²⁰⁹ and conduct "of a continuing nature" or which "produced a permanent or long-lasting effect, and, as the actor knows or has reason to know, has a significant effect upon the public right."²¹⁰ Clearly this modern definition of public nuisance encompasses most environmental problems simply because of the extensive environmental regulation at both the state and federal levels and the major threat to public safety posed by most environmental problems. Generally, public nuisance claims have been more successful in environmental cases involving toxic contamination and pollution than in environmental cases involving the protection of an endangered or threatened species.²¹¹ Despite this trend there is no reason that public nuisance should be limited to contamination or pollution cases. As one commentator states, "In the years ahead the common law of public nuisance can be expected to grow further and continue to be applied to new and challenging environmental problems."²¹²

Is the killing or harassing of an endangered or threatened species covered under the broad spectrum of public nuisance jurisprudence? Although there are currently no cases expressly referring to the killing of an endangered species as a public nuisance,

206. See *Concerned Citizens of Bridesburg v. City of Philadelphia*, 643 F. Supp. 713 (E.D. Pa. 1986), *contempt order aff'd*, 843 F.2d 679 (3d Cir. 1988) (sewage treatment plant odor not actionable under federal or state environmental statutes but enjoined under public nuisance).

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

208. *Id.* § 821B(2)(a).

209. *Id.* § 821B(2)(b).

210. *Id.* § 821B(2)(c).

211. See, e.g., *United States v. Hooker Chem. & Plastics Corp.*, 722 F. Supp. 960 (W.D.N.Y. 1989) (disposal of waste in Love Canal); *Anderson v. W.R. Grace & Co.*, 628 F. Supp. 1219 (D. Mass. 1986) (pollution of public wells which were municipal water supply); *Burns v. Jaquays Mining Corp.*, 752 P.2d 28 (Ariz. Ct. App. 1988) (asbestos mill exposed adjacent neighbors to asbestos); *Wood v. Picillo*, 443 A.2d 1244 (R.I. 1982) (chemical dump site polluting underground water); *Miotke v. City of Spokane*, 678 P.2d 803 (Wash. 1984) (discharge of raw sewage into Spokane River).

212. Sevinsky, *supra* note 205, at 7.

sance, there are indications that many courts would find such an act to be a nuisance. In *Pruitt v. Allied Chemical Corp.*,²¹³ commercial fishermen, seafood wholesalers, retailers, distributors and processors, restaurateurs, and marina, boat tackle shop and bait shop owners sued a chemical company for damages resulting from the release of a toxic chemical into the James River and Chesapeake Bay. One of the causes of action included a public nuisance claim. The court stated:

In the instant action, those costs [of the pollution] were borne most directly by the wildlife of the Chesapeake Bay. The fact that no one individual claims property rights to the Bay's wildlife could arguably preclude liability. The Court doubts, however, whether such a result would be just. Nor would a denial of liability serve social utility: many citizens, both directly and indirectly, derive benefit from the Bay and its marine life. Destruction of the Bay's wildlife should not be a costless activity.²¹⁴

Clearly the court in *Pruitt* recognized the inherent benefit in the protection and preservation of wildlife even though the wildlife is not owned by any particular individual. In *State ex rel. Dresser Industries, Inc. v. Ruddy*,²¹⁵ the Missouri Supreme Court noted the increasing tendency "to treat significant interferences with recognized aesthetic values or established principles of conservation of natural resources" as public nuisances.²¹⁶ If the killing of wildlife by pollution and contamination of its habitat is a public nuisance, then any threat to an endangered species or its habitat must also be considered a public nuisance.

4. Scientific and Philosophical Approaches to the Protection of Endangered Species and Biodiversity

As the above discussion indicates, the law of public nuisance is dynamic. By only looking to the past to determine what constitutes a nuisance, the Court in *Lucas* imposes a structure on the law that is not warranted. As Professor Joseph Sax notes,

to hold to a standard set in the past, paradoxically, is to accept a governmental judgment of some past moment, while disdaining parallel governmental judgments made today. Such a view must

213. 523 F. Supp. 975 (E.D. Va. 1981).

214. *Id.* at 978.

215. 592 S.W.2d 789 (Mo. 1980).

216. *Id.* at 792. The state of Missouri, as "trustee for its citizens," brought an action for damages as "rejuvenating compensation" for injuries to rivers and streams in the state caused by the rupture of a settling dam containing wastes from a barite mine. *Id.* at 791-93.

assume that the problems worthy of governmental regulation are essentially immutable, and have nothing to do with shifting societal values.²¹⁷

As our scientific knowledge increases, the law must adapt and respond to new environmental threats. Just as a bowling alley was once considered a public nuisance²¹⁸ and the type of pesticides a farmer applied to his land was considered his personal business, the latest scientific, moral, and ethical views must be taken into consideration in the determination of what is a nuisance. As Professor Sax states:

The real difficulty is that modern ecological theory has eroded the notion of a bounded domain, often almost to the vanishing point. Many things that a short time ago were thought entirely the business of a landowner within the confines of his or her own land are now revealed to be intimately interconnected with other lands and with public resources that have never been thought to belong to the owner of a given tract.²¹⁹

The key to finding that a threat to an endangered or threatened species rises to the level of a public nuisance is the magnitude of the harm that will occur if the species is not protected. The harm must be "both substantial and unreasonable."²²⁰ The problem is that it is difficult to quantify the harm that is avoided by protection of an endangered species. Nevertheless, this does not mean that a substantial harm does not exist. Courts, legislatures, and scientific and ethical communities are beginning to recognize that the trend of species extinction must be reversed for the benefit of humanity and the earth.

Congress, in enacting the Endangered Species Act, intended to halt the extinction of endangered species. The stated purpose of the ESA is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved"²²¹ Not only did Congress view extinction as a serious problem, but courts have strictly construed the Act. The

217. Joseph L. Sax, *The Constitutional Dimensions of Property: A Debate*, 26 *LOY. L.A. L. REV.* 23, 31 (1992).

218. *Tanner v. Trustees of the Village*, 5 Hill 121 (N.Y. 1843). The bowling alley was considered "[a] useless establishment, wasting the time of the owner, tending to fasten his own idle habits on his family, and to draw the men and boys of the neighborhood into a bad moral atmosphere" *Id.* at 128.

219. Sax, *supra* note 217, at 33.

220. Robert Abrams & Val Washington, *The Misunderstood Law of Public Nuisance: A Comparison with Private Nuisance Twenty Years After Boomer*, 54 *ALB. L. REV.* 359, 374 (1990).

221. 16 U.S.C. § 1531(b) (1988).

Supreme Court in *Tennessee Valley* stopped a \$100 million dam project to save one of approximately one hundred species of darters, the snail darter, inhabiting the rivers of Tennessee.²²² The Court found that Congress deemed all species to have "incalculable value" and that the ESA allowed for no exceptions.²²³ Clearly the Supreme Court has accepted Congress' judgment that the protection of endangered or threatened species is of primary importance for the benefit not only of the species but also of the public.

The growing belief among courts, legislatures, and the public at large is that protecting endangered species is not only moral and ethical conduct, but also necessary for the continued well-being of the human race.²²⁴ Arguments for protection of endangered species

appeal to [the species'] economic, medicinal, scientific, educational, or aesthetic value, their potential to provide genetic diversity, food or energy sources, tourist revenues, ecological health, indicators of environmental quality, or (often unspecified) benefits to future generations; their cultural or religious significance, their contribution to our understanding of ourselves or even to our ultimate survival.²²⁵

Certainly if a species becomes extinct, a source of knowledge is lost forever. As botanist F. Nigel Hepper writes, many species of plants "are seldom spectacular and may not attract popular interest, but scientifically they can be far more important than others of horticultural merit."²²⁶ These are utilitarian arguments and many ethicists disagree that preservation of a species should be based on cost-benefit analysis.²²⁷ However, utilitarian arguments are most likely to win sentiment in the legislative process or court proceedings. In fact, some scientists predict that hundreds of thousands of species are in danger of becoming extinct in the

222. *Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978).

223. *Id.* at 162, 178.

224. See Albrecht & Jackson, *supra* note 148, at S1.

225. Alastair S. Gunn, *Preserving Rare Species*, in *EARTHBOUND: NEW INTRODUCTORY ESSAYS IN ENVIRONMENTAL ETHICS* 289, 314 (Tom Regan ed., 1984).

226. F. Nigel Hepper, *The Conservation of Rare and Vanishing Species of Plants*, in *THE RED BOOK: WILDLIFE IN DANGER* 354, 357 (1969).

227. See Gunn, *supra* note 225, at 304-05 (preservationists justify species preservation on the inherent or intrinsic value of species — the idea that all species have a right to exist).

next half-century.²²⁸ Utilitarian arguments "seem often to be a way of selling the public on policies [to protect endangered and threatened species] that are felt to be somehow right independently of present and future human well-being."²²⁹ The public and political decision makers can more readily understand utilitarian arguments spelling out the *human* cost of the loss of biodiversity.

Scientists advance three general arguments for protecting all species without regard to the cost of doing so. The first is utilitarian: Most foods and many medicines come from living creatures and the extinction of one may deprive mankind of a future cure for a horrible disease.²³⁰ This argument is the one most scientists and ethicists believe will most strongly influence public policy.²³¹ The second reason scientists generally use to support the protection of biodiversity is also utilitarian: "The web of species around us helps generate soil, regulate freshwater supplies, dispose of waste, and maintain the quality of the atmosphere. Pillaging nature to the point where it cannot perform these vital functions is dangerously foolish."²³² The utilitarian views are implicitly based on the notion that nature, including "lower" life forms are valuable only to serve or assist humankind.

Many scientists and philosophers, however, have developed a different justification: Every species is intrinsically valuable and humankind has a moral duty to not cause the extinction of any species. This third reason scientists generally advance to protect

228. Stephen R. Kellert, *Social and Perceptual Factors in the Preservation of Animal Species*, in *THE PRESERVATION OF SPECIES: THE VALUE OF BIOLOGICAL DIVERSITY* 50, 51 (Bryan G. Norton ed., 1986).

229. J. Baird Callicott, *On the Intrinsic Value of Nonhuman Species*, in *THE PRESERVATION OF SPECIES: THE VALUE OF BIOLOGICAL DIVERSITY* 138, 139 (Bryan G. Norton ed., 1986).

230. Charles C. Mann & Mark L. Plummer, *The Butterfly Problem*, *ATL. MONTHLY*, Jan. 1992, at 47, 50.

231. See Bryan G. Norton, *A Conservationist's Dilemma*, *WILDLIFE CONSERVATION*, May/June 1990, at 6, 7-8.

232. Mann & Plummer, *supra* note 230, at 51. The biologists Paul and Anne Ehrlich reported the story of the effect of spraying DDT in Borneo in their book *EXTINCTION* (1981). The DDT killed all the houseflies; the gecko lizards ate the corpses of the flies and died. Cats ate the lizards and they too died. Rats then spread unchecked, bringing bubonic plague. The government was forced to parachute cats into the area. *Id.*; see also, Elliott Sober, *Philosophical Problems for Environmentalism*, in *THE PRESERVATION OF SPECIES: THE VALUE OF BIOLOGICAL DIVERSITY* 173, 176-77 (Bryan G. Norton ed., 1986) (mass extinctions threaten biosphere).

biodiversity has been called the "Noah Principle." It can be summed up as follows:

The smallest grub has the same right to exist as the biggest whale; so does every species of cockroach, every species of stinging nettle (all plants are included in these arguments), and even the microorganisms that cause malaria and syphilis. Anthropologists refuse to categorize culture as "higher" and "lower" civilizations, because all have intrinsic worth; biologists believe that there is no inherent difference in value between "higher" and "lower" organisms. All are precious, and human beings have a moral responsibility to each and every one.²³³

Although many scientists and philosophers have adopted the Noah Principle as the ultimate justification for species preservation,²³⁴ they recognize that, unfortunately, this higher moral road will not appeal to the general public. "Human chauvinism" is pervasive in our culture and only in recent years has been called into question by scientists, philosophers and animal rights activists.²³⁵

No matter which of the three reasons put forward to protect biodiversity one chooses, the undeniable fact is that governments must make extremely hard choices between economic realities and preservation of the ecosystem and perhaps humankind. At this time, the Endangered Species Act is the basis for this determination in the United States and the Act is based primarily on the Noah Principle; but the ESA is subject to political change. Now, perhaps for the first time, Congress is taking real heat to change the Act and lessen its bite. If this becomes a reality, then the importance of characterizing threats to species preservation as public nuisances becomes even more crucial. There is no doubt that the scientific community would so characterize them. Based on traditional nuisance principles, there can be little doubt that interference with an endangered or threatened species rises to the level of a public nuisance and courts must recognize that no compensation is required to be paid to the landowner for a total or partial taking.

233. Sober, *supra* note 232, at 176-77. The Noah Principle was named by biologist David Ehrenfeld and is shared by many scientist and preservationists. See Gunn, *supra* note 225, at 304-05.

234. See generally Callicott, *supra* note 229.

235. Edward Johnson, *Treating the Dirt: Environmental Ethics and Moral Theory*, in *EARTHBOUND: NEW INTRODUCTORY ESSAYS IN ENVIRONMENTAL ETHICS* 336, 337-39 (Tom Regan ed., 1984) (human chauvinism has been even the dominant view among moral theorists).

IV.

CONCLUSION

Without a doubt, landowners and developers will challenge the ESA when Congress begins the task of reauthorizing the statute. However, while the ESA may be amended, in the current political climate it will probably not be seriously gutted. Many of the landowners who learn that their property is critical habitat for an endangered or threatened species will look to the Fifth Amendment for relief when they cannot sell or develop the property without a section 10(a) permit that, in most cases, is economically infeasible.

If landowners and developers view *Lucas* as a chink in the armor of the Takings Clause and begin to challenge ESA regulations as regulatory takings, the courts must recognize that these regulations are necessary to insure the continued well-being of the planet, the plants and animals that exist on it, and even humankind. We cannot allow old notions of property and individual rights to hinder this goal. Although, in the Middle Ages, protection of endangered or threatened species may not have been considered in the best interest of the public, today, with our current scientific knowledge we must not hide our collective head in the sand. We cannot reduce the protection of endangered or threatened species to a cost-benefit analysis, because in most cases the species will lose. As Professor Edward O. Wilson states in his book, *The Diversity of Life*:

Humanity coevolved with the rest of life on this particular planet; other worlds are not in our genes. Because scientists have yet to put names on most kinds of organisms, and because they entertain only a vague idea of how ecosystems work, it is reckless to suppose that biodiversity can be diminished indefinitely without threatening humanity itself As extinction spreads, some of the lost forms prove to be keystone species, whose disappearance brings down other species and triggers a ripple effect through the demographics of the survivors. The loss of a keystone species is like a drill accidentally striking a power line. It causes lights to go out all over.²³⁶

236. WILSON, *supra* note 1, at 347-48.