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The Walking Dead or Weekend at Bernie's? How the Public Trust Doctrine Threatens Alternative Energy Development

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The Walking Dead or Weekend at Bernie's? How the Public Trust Doctrine Threatens Alternative Energy Development

Michael Julius Motta, Jr.*

Abstract

One of the oldest doctrines of environmental law, the public trust doctrine, is sufficiently ambiguous that it risks threatening widespread adoptions of alternative energy sources such as wind energy. Because of this, the public trust doctrine threatens the protection of the environment in the name of protection of the environment. Yet, the public trust doctrine and future energy policy should be complementary and not exclusionary of each other. In light of this, whether an agency has public trust authority should be determined based on six factors: the legal authority of state fiduciaries; due diligence by state fiduciaries in determining if actions are in the public interest; state fiduciaries' responsibility to mitigate harm; state fiduciaries' responsibility to manage protected resources and uses; state action that risks or causes substantial harm to a protected resource must be outweighed by the benefits to the entire State's resources; and State action that risks or causes substantial harm to a protected public use must be outweighed by the benefits to protected resources or the public interest. Without significant change to environmental laws, particularly the public trust doctrine, environmental law runs the risk of ceasing to become a coherent body of law.

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I. Introduction

In *The Walking Dead*,¹ humans come back to life as zombies. In *Weekend at Bernie's*,² two employees prop up their dead boss Bernie to make him appear alive. Many consider the public trust doctrine analogous to a zombie, resurrected from Ancient Rome and the Middle Ages to protect coasts and offshore waters for current and future citizens.³ However,

1. See THE WALKING DEAD (Image Comics), available at <http://imagecomics.com/comics/series/the-walking-dead>; *The Walking Dead* (AMC television series).

2. WEEKEND AT BERNIE'S (Gladden Entertainment 1989).

3. See Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 475 (1970) (characterizing public trust as deriving from Roman and English law); Mary Christina Wood, *Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part I): Ecological Realism and the Need for a Paradigm Shift*, 39 ENVTL. L. 43, 68 (2009) ("The public trust is perpetual, designed by courts to secure the natural resources needed by

until courts resolve the doctrine's ambiguity, Bernie is the better analogy.⁴

Courts adopted the public trust doctrine from Roman and English law in the nineteenth century.⁵ The doctrine obligates states to protect coastal and offshore waters for public benefit.⁶ Courts, however, provide little guidance beyond this vague definition.⁷ As a seminal public trust theorist noted, "[t]he 'public trust' has no life of its own and no intrinsic content."⁸ Rather, it is "a mixture of ideas which have floated rather freely. The ideas are of several kinds and they have received inconsistent treatment . . . [by courts]."⁹

The doctrine's ambiguity allowed states to define the doctrine to suit specific needs.¹⁰ Application of the doctrine to alternative energy development renders multiple conflicting answers,¹¹ suggesting the ambiguity is a symptom of emptiness, not versatility.

An overabundance of greenhouse gases in the atmosphere and ocean threaten the world's resources.¹² This overabundance particularly

both present and future generations.").

4. See Joseph D. Kearney & Thomas W. Merrill, *The Origins of the American Public Trust Doctrine: What Really Happened in Illinois Central*, 71 U. CHI. L. REV. 799, 803 (2004) ("A number of serious ambiguities afflict this doctrine.").

5. See Sax, *supra* note 3, at 475–76 (citing W. BUCKLAND, A TEXTBOOK OF ROMAN LAW FROM AUGUSTUS TO JUSTINIAN, 182–85 (2d ed. 1932)) (indicating property rights in rivers, seas, and the seashore as areas of attention within Roman and English law).

6. See *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 453 (1892) (characterizing the trust as requiring the state to protect waters for the public); Sax, *supra* note 3, at 556–57 (including all land below the water mark within the scope of the trust).

7. See, e.g., *Ill. Cent. R.R.*, 146 U.S. at 454 ("General language sometimes found in opinions of the courts, expressive of absolute ownership and control by the State of lands under navigable waters, irrespective of any trust as to their use and disposition, must be read and construed with reference to the special facts of the particular cases."); see also Sax, *supra* note 3, at 476–77 ("Whether and to what extent that trusteeship [under the public trust doctrine] constrains the states in their dealings with such lands has . . . been a subject of much controversy.").

8. Sax, *supra* note 3, at 521.

9. *Id.* at 484.

10. See *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 475 (1988) ("[I]t has been long established that the individual States have the authority to define the limits of the lands held in public trust and to recognize private rights in such lands as they see fit."); Robin Kundis Craig, *A Comparative Guide to the Eastern Public Trust Doctrine States, Property Rights, and State Summaries*, 16 PENN ST. ENVTL. L. REV. 1, 10–14 (2007–08) (recognizing differences in focus and scope among states when applying the public trust doctrine).

11. See Alexandra B. Klass, *Renewable Energy and the Public Trust Doctrine*, 45 U.C. DAVIS L. REV. 1021, 1040, 1053–58, 1061–63 (2011) (stating that conflicts between renewable energy projects, such as solar and wind, and the public trust doctrine are inevitable).

12. See Ryan P. Kelly & Margaret R. Caldwell, *Ten Ways States Can Combat Ocean Acidification (and Why They Should)*, 37 HARV. ENVTL. L. REV. 57, 58 (2013) ("[A] more acidic ocean has begun to dissolve the shells and other hard parts of marine organisms and

threatens coastlines and offshore waters,¹³ areas that are protected by the public trust doctrine.¹⁴ Most greenhouse gas emissions result from the production and use of fossil fuels.¹⁵ To mitigate harm, many coastal states are pursuing alternative energy sources, including offshore wind farms.¹⁶

Offshore wind energy offers long-term benefits, but it also imposes short-term harm.¹⁷ The harm, though minimal relative to the harm imposed by fossil fuels, implicates the public trust doctrine.¹⁸ The doctrine's ambiguity makes it unclear how courts should apply it to offshore wind energy.¹⁹ This article argues that such indeterminacy undermines alternative energy development and harms the public interest.

Part II presents adoption and subsequent interpretation of the public

threatens to change fundamentally the marine ecosystems on which a large fraction of the world depends for sustenance, recreation, and a host of other services.”); Susan Solomon et al., *Irreversible Climate Change Due to Carbon Dioxide Emissions*, 106 PROC. NATL. ACAD. SCI. 1704, 1704 (2009) (identifying increases in heavy rainfall and flooding, permafrost melt, loss of glaciers and snowpack, and increased intensity of hurricanes as possible consequences of higher carbon dioxide levels).

13. See Solomon et al., *supra* note 12, at 1708 (noting that rising sea levels could affect coastlines).

14. See *Alliance to Protect Nantucket Sound, Inc. v. Energy Facilities Siting Bd.*, 932 N.E.2d 787, 800 (Mass. 2010) (describing the established principle that the public trust doctrine protects tidelands for both fishing and navigation, among other uses).

15. See *Sources of Greenhouse Gas Emissions*, ENVTL. PROT. AGENCY, <http://www.epa.gov/climatechange/ghgemissions/sources.html> (last visited Feb. 9, 2014) (noting that in 2011, thirty-three percent of greenhouse gas emissions resulted from electricity production, twenty-eight percent resulted from transportation, twenty percent resulted from industry, eleven percent resulted from commercial and residential sectors, of which the burning of fossil fuels was the primary source in each of these sources) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

16. See MICHAEL HAHN & PATRICK GILMAN, NAVIGANT CONSULTING, INC. FOR U.S. DEP'T OF ENERGY, OFFSHORE WIND MARKET AND ECONOMIC ANALYSIS 7 tbl. 1–2 (2013), available at http://energy.gov/sites/prod/files/2013/12/f5/offshore_wind_market_and_economic_analysis_10_2013.pdf (describing advanced-stage offshore wind energy projects) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

17. See *Environmental Impacts and Siting of Wind Projects*, DEPT. OF ENERGY, <http://energy.gov/eere/wind/environmental-impacts-and-siting-wind-projects> (last visited Apr. 4, 2014) (“Wind projects have the potential to reduce, fragment, or degrade habitat for wildlife, fish, and plants. Turbine blades and towers can pose a threat to flying wildlife like birds . . . and bats.”).

18. See Klass, *supra* note 11, at 1024 (“This focus on the role of renewable energy in addressing climate change, energy independence, and environmental protection . . . has direct ties to the public trust doctrine.”); see also *Alliance to Protect Nantucket Sound*, 932 N.E.2d at 800 (“There is no question that the Commonwealth tidelands through which Cape Wind’s transmission lines will pass are held in the public trust . . .”).

19. See Klass, *supra* note 11, at 1024–25 (describing arguments that offshore renewable energy projects are both consistent and inconsistent with the public trust doctrine).

trust doctrine in the United States Part III explores alternative energy development, the first federally-approved offshore wind energy project, and a public trust challenge that the project faced. Part IV identifies major areas of indeterminacy in public trust law. Part V suggests how courts should make the doctrine more reliable. This article concludes in Part VI by arguing that ambiguity in the public trust doctrine represents larger paradigmatic problems in environmental law.

II. Public Trust Doctrine

The public trust doctrine creates an enforceable fiduciary relationship between state trustees and citizen beneficiaries.²⁰ As fiduciaries, states must hold coasts and offshore waters in trust for the benefit of their citizens.²¹ Beyond this abstract definition, courts do not provide guidelines for states administering the trust. With only minimal limits, courts allow states to define the purpose and scope of their public trust doctrine.²²

A. Adopting the Public Trust

The public trust notion originated in sixth century Rome.²³ Roman Emperor Justinian ordered the writing of the Institutes, a series of quasi-legal codes.²⁴ Book II of the Institutes included the passage:

Thus, the following things are by natural law common all—the air, running water, the sea, and consequently the sea-shore. No one therefore is forbidden access to the

20. See *Ill. Cent. R.R.*, 146 U.S. at 453 (describing the public trust as “that trust which requires the government of the state to preserve such [navigable] waters for the use of the public” and which “can only be discharged by the management and control of property in which the public has an interest”).

21. See *id.* at 452 (“[Coastal areas are] held in trust for the people of the state, that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein . . .”); Sax, *supra* note 3, at 474 n.14 (“[I]n many traditional public trust cases, the state was the plaintiff, and the defendant was a private landowner, a local government, or a public agency.”).

22. See *Phillips Petroleum*, 484 U.S. at 475 (“[I]t has been long established that the individual States have the authority to define the limits of the lands held in public trust . . .”); Craig, *supra* note 10, at 10–14 (identifying the different applications of the common law tidal test by different jurisdictions).

23. See Sax, *supra* note 3, at 475–76 (discussing the flexibility that states have in devising the public trust).

24. See WILLIAM A. HUNTER, INTRODUCTION TO ROMAN LAW 17 (4th ed. 1880) (discussing the creation of the Institutes).

seashore, provided he abstains from injury to houses, monuments, and buildings generally [A]ll rivers and harbours are public, so that all persons have a right to fish therein.²⁵

Although the Roman notion was only quasi-legal, it heavily influenced thirteenth century English law.²⁶ The English public trust doctrine restrained the Crown from “granting exclusive rights to hunt or fish,” and “obligated the king to protect tidal waters and shorelines for public use.”²⁷

U.S. courts adopted the public trust doctrine from the English common law in the early nineteenth century.²⁸ In *Arnold v. Mundy*,²⁹ the plaintiff held exclusive title to an oyster bed, and sued the defendant for trespass.³⁰ The court concluded that the public trust doctrine required New Jersey to hold protected areas in trust for public use.³¹ Thus, the state could not grant exclusive use of an oyster bed, and the plaintiff’s title did not include the right to exclude others.³²

The U.S. Supreme Court affirmed *Arnold’s* reasoning in *Illinois Central Railroad v. Illinois*.³³ The Illinois legislature had granted most of the Chicago waterfront to a railroad company.³⁴ When the legislature later repealed the statute, the railroad sued for enforcement of the grant.³⁵ The Court said that the public trust doctrine bound all states to hold protected

25. JUSTINIAN, INSTITUTES book II, tit. 1, §§ 1–2 (J.B. Moyle trans., Oxford 1911), available at <http://amesfoundation.law.harvard.edu/digital/CJCiv/JInst.pdf> (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

26. See Edward D. Re, *The Roman Contribution to the Common Law*, 29 FORDHAM L. REV. 447, 482 (1960) (“Chancellors availed themselves of Roman rules in the construction of legacies and documents.”).

27. See Sax, *supra* note 3, at 476 (discussing the limits that the doctrine placed on the Crown).

28. See *Arnold v. Mundy* 6 N.J.L. 1, 12–13 (N.J. 1821) (identifying the English rights that were brought to the United States).

29. *Id.*

30. See *id.* at 9 (“The action is for a trespass in entering upon the plaintiff’s oyster bed, and taking and carrying away his oysters.”).

31. See *id.* at 7–8 (“The sovereign power itself, therefore, cannot, consistently with the principles of the law of nature and the constitution of a well ordered society, make a direct and absolute grant of the waters of the state, divesting all the citizens of their common right.”).

32. See *id.* (“[T]he grant in question is void, and ought not to prevail for the benefit of the plaintiff, and, of course, that the rule to shew cause must be discharged.”).

33. 146 U.S. 387 (1892).

34. See *id.* at 439 (noting the land granted to the railroad included both the bed of Lake Michigan and the harbor).

35. See *id.* at 449 (reciting the facts of the case).

areas in trust for public use.³⁶ Specifically, the trust placed two restrictions on state trustees. First, states cannot grant an entire protected area if the grant interferes with “navigation of the waters . . . commerce over them, and . . . liberty [to fish] therein freed from the obstruction or interference of private parties.”³⁷ Secondly, states cannot abdicate their duty to manage the protected resource.³⁸ Beyond these abstract limits, the Court has said little.

B. Interpreting the Public Trust

Legal scholars have attempted to give substance to the doctrine, but much work remains.³⁹ Professor Joseph Sax’s scholarship is particularly influential.⁴⁰ As he noted:

[T]here is no well-conceived doctrinal basis that supports a theory under which interests are entitled to special judicial attention and protection. Rather, there is a mixture of ideas which have floated rather freely in and out of American public trust law. The ideas are of several kinds and they have received inconsistent treatment in the law.⁴¹

Sax sought to find a coherent doctrine within disparate state interpretations. He concluded that the doctrine requires courts to examine resource reallocations if the democratic process is inadequate, public uses are restricted, or if the trust is subject to private interests.⁴² Sax offers a more precise definition than *Illinois Central*, but he similarly declined to describe specific trustee duties.

After *Illinois Central*, states applied the doctrine in various ways,⁴³

36. See *id.* at 435 (stating that under the law it is settled that “lands covered by tide waters” belong to the states, and cannot be used in way that substantially impairs the public’s use of such lands).

37. *Id.* at 452.

38. See *id.* at 453 (“Such abdication is not consistent with the exercise of that trust which requires the government of the state to preserve such waters for the use of the public.”).

39. See Sax, *supra* note 3, at 473–74 (discussing areas of the law that remain unsettled).

40. See James L. Huffman, *Trusting the Public Interest to Judges: A Comment on the Public Trust Writings of Professors Sax, Wilkinson, Dunning and Johnson*, 63 DENV. U. L. REV. 565, 566 (1986) (“The rebirth and dramatic growth of the public trust doctrine is in no small part the product of a classic article on the subject by Joseph Sax.”).

41. Sax, *supra* note 3, at 484.

42. See *id.* at 557–65 (outlining an analytical framework with which courts should analyze public trust issues).

43. See generally Robin Kundis Craig, *A Comparative Guide to the Western States’ Public Trust Doctrines: Public Values, Private Rights, and the Evolution Toward an*

a practice that state high courts have affirmed.⁴⁴ Among others, expanded areas of protection include inland wetlands and parks, municipal water supplies, streets, and prehistoric fossil beds.⁴⁵ Expanded public uses include aesthetic enjoyment, recreational activities, and wildlife protection.⁴⁶

In *Center for Biology Diversity v. FPL Group, Inc.*,⁴⁷ the California Court of Appeals said that wildlife is a public trust resource.⁴⁸ Most court language suggests wildlife is more akin to a protected use than a protected resource. In *Arnold*, “the sea, the fish, and the wild beasts,” were “placed in the hands of the sovereign power, to be held, protected, and regulated for the common use and benefit.”⁴⁹ In *Smith v. Maryland*,⁵⁰ the Supreme Court held that resources were in trust “for . . . the enjoyment of certain public rights, among which is [fishing].”⁵¹

The ability of the doctrine to expand its scope of protection is often considered a public good, but there are risks.⁵² As Huffman noted:

The [initial] concept of a public right to navigation, commerce and fishing in navigable waters is bounded sufficiently to limit the discretion of a judge or other public official. To be sure there are gray areas where judgment must be exercised But if a public right to fish implies a public right to camp and a navigable waterway implies a prairie pothole, or if the concept of a public right in navigation, commerce and fishing implies a public right in

Ecological Public Trust, 37 *ECOLOGY L.Q.* 53 (2010) (presenting the different ways that states have shaped the public trust doctrine).

44. See, e.g., *Borough of Neptune City v. Borough of Avon-By-the-Sea*, 294 A.2d 47, 54 (N.J. 1972) (“The public trust doctrine, like all common law principles, should not be considered fixed or static, but should be molded and extended to meet changing conditions and needs of the public it was created to benefit.”).

45. See *id.* at 48 (applying the public trust doctrine to the use of a beach).

46. See Michael C. Blumm & Aurora Paulsen, *The Public Trust in Wildlife*, 34–35 (Lewis and Clark Law School Legal Studies Research Paper, 2012) (arguing for the increased application of the public trust doctrine to wildlife issues).

47. 83 Cal. Rptr. 3d 588 (Cal. Ct. App. 2008).

48. See *id.* at 591 (“Wildlife . . . is considered to be a public trust resource of all the people of the state, and private parties have the right to bring an action to enforce the public trust.”).

49. Blumm & Paulsen, *supra* note 46, at 22 (discussing the *Arnold* decision).

50. 59 U.S. 71 (1855).

51. *Id.* at 72.

52. See James L. Huffman, *Speaking of Inconvenient Truths—A History of the Public Trust Doctrine*, 18 *DUKE ENVTL. L. & POL'Y F.* 1, 96 (2008) (arguing that expanding the scope of the public trust doctrine beyond its traditional boundaries would make it indistinguishable from a state’s traditional police powers).

all things . . . then there can be no rule of law⁵³

III. Offshore Wind Energy Development

A. Fossil Fuels and Climate Change

An overabundance of greenhouse gases in the atmosphere and ocean threatens coastlines and offshore waters, areas protected by the public trust doctrine.⁵⁴ This overabundance causes the disruption of climate patterns, heavier rainfall, the alteration of river flows, changes in the temperature and chemistry of the ocean, and higher sea levels which threaten barrier islands, coastal marshes, and wildlife.⁵⁵

The burning of fossil fuels for energy accounts for most of the United States' greenhouse gas emissions.⁵⁶ To mitigate harm caused by fossil fuels, states are pursuing alternative energy.⁵⁷ Alternative energy, however, imposes its own harms, implicating environmental laws.⁵⁸ Offshore wind is a promising source of alternative energy.⁵⁹ While the United States does not yet have commercial-scale offshore wind capacity, Massachusetts and Texas lead a number of coastal states pursuing

53. *Id.*

54. See Solomon et al., *supra* note 12, at 1708 (“Sea level rise can be expected to affect many coastal regions.”); see also *Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 458 (1892) (discussing the common law that “lands under tide waters” belong to the public trust).

55. See generally Kelly & Caldwell, *supra* note 12 (discussing the impacts that increases in greenhouse gases have on the oceans); see also Solomon et al., *supra* note 12 (discussing the effects of carbon emissions on the oceans).

56. See Kelly & Caldwell, *supra* note 12, at 100 (explaining some sources of the United States' emissions).

57. See Lori Bird et al., *Policies and Market Factors Driving Wind Power Development in the United States*, 33 ENERGY POL'Y 1397, 1397–1400 (2005) (exploring the growth of wind energy investment in the United States); see also Klass, *supra* note 11, at 1024 (“In recent years, efforts to develop large-scale wind, solar, and other renewable energy projects in the United States have grown exponentially. . . . The rhetoric surrounding renewable energy focuses on . . . environmental protection . . . and the need to create sources of sustainable energy . . .”).

58. See John Copeland Nagle, *Green Harms of Green Projects*, 27 NOTRE DAME J.L. ETHICS & PUB. POL'Y 59, 73 (2013) (“Renewable energy is most touted for its environmental benefits, yet environmental laws pose one of the most significant obstacles to developing renewable energy.”).

59. See WALTER MUSIAL & BONNIE RAM, LARGE-SCALE OFFSHORE WIND POWER IN THE UNITED STATES: ASSESSMENT OF OPPORTUNITIES AND BARRIERS 9 (2010), available at http://www.osti.gov/greenenergy/rddetail?osti_id=990101 (“Overall, the opportunities for offshore wind are abundant . . .”) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

significant wind farms.⁶⁰

Developers often site offshore wind projects in federal waters.⁶¹ Nonetheless, transmission lines travel through state waters, requiring state approval.⁶² Turbine rotors can reach over 400 feet high and spin nearly 170 miles an hour, harming bird and bat populations.⁶³ Offshore wind energy development can also interfere with navigation lanes, fishing and recreational areas, marine habitats, and other public trust protections.⁶⁴

As Craig observed:

States' overall public trust philosophies . . . vary widely, both rhetorically and in application As one obvious example, climate change effects threaten coasts throughout the United States. In light of such changes, coastal states viewing their public trust doctrines as evolutionary may . . . decide that the public trust doctrine gives the state extensive authority . . . [to protect] the coast. Alternatively . . . states may . . . [provide] greater protections to marine species and marine ecosystems.⁶⁵

B. *Alliance to Protect Nantucket Sound, Inc.*

Cape Wind was the first federally approved commercial-scale offshore wind energy project.⁶⁶ Its regulatory path was uncertain and no substantial legal opposition was expected.⁶⁷ Developers “invested over \$40

60. See Klass, *supra* note 11, at 1035–36 (discussing current efforts to site offshore wind farms off the Atlantic Coast).

61. See *id.* (stating that current efforts to site offshore wind projects focus on federal submerged lands).

62. See *id.* at 1050 (explaining that offshore projects require transmission lines throughout state, not federal waters).

63. See Dina Cappiello, *Study: Wind Farms Killed 67 Eagles in 5 Years*, THE BIG STORY (Sept. 11, 2013), <http://bigstory.ap.org/article/study-wind-farms-killed-67-eagles-5-years> (citing a scientific study that states that wind energy facilities have killed at least sixty-seven bald and golden eagles in the last five years) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

64. See Brian Snyder & Mark J. Kaiser, *Ecological and Economic Cost-Benefit Analysis of Offshore Wind Energy*, 34 RENEWABLE ENERGY 1567, 1568 (2009) (listing criticisms of offshore wind energy facilities); see also Bonnie Ram, *Assessing Integrated Risks of Offshore Wind Projects: Moving Towards Gigawatt-Scale Deployments*, 35 WIND ENERGY 247, 252–53 (2011) (discussing the risks that need to be considered when planning a wind energy project).

65. Craig, *supra* note 10, at 25.

66. See Klass, *supra* note 11, at 1050 (“The Cape Wind project . . . received the first federal offshore wind project lease in 2010 . . .”).

67. See *id.* at 1053–59 (tracing the regulatory and legal history of the development of

million and pursued the necessary permits for almost ten years.”⁶⁸

When completed, Cape Wind will have 130 wind turbines in Nantucket Sound, five miles off the Massachusetts coast.⁶⁹ The project will supply about seventy-five percent of the electricity for Cape Cod and the islands of Nantucket and Martha's Vineyard.⁷⁰ Wind speeds in Nantucket Sound are high, averaging 19.75 miles an hour, and are highest during peak energy demand.⁷¹ The project site is barely visible from the shore, and does not interfere with commercial fishing, rare wildlife, or navigation.⁷² Nevertheless, Cape Wind has fought opposition for a decade, mainly from the Alliance to Protect Nantucket Sound (“the Alliance”).⁷³ The Alliance spent \$15 million or more opposing the project, including ten lawsuits challenging federal and state approvals.⁷⁴

The Cape Wind proposal sited the wind farm in federal waters, with transmission lines running under the seabed of Nantucket Sound and Lewis Bay.⁷⁵ Thus, the project required federal, state, and local approval.⁷⁶ The transmission cables are “indistinguishable from other cables in the same area” and cause no harm to the environment.⁷⁷ Yet in 2007, the Cape Cod Commission denied the construction permit.⁷⁸ After the Commission's denial, Cape Wind applied to the siting board for a state permit that would supersede the local commission's denial.⁷⁹ After a hearing, the siting board

the Cape Wind project).

68. Kenneth Kimmell & Dawn Stolfi Stalenoef, *The Cape Wind Offshore Wind Energy Project: A Case Study of the Difficult Transition to Renewable Energy*, 5 GOLDEN GATE U. ENVTL. L.J. 197 (2011).

69. See *Frequently Asked Questions*, CAPE WIND, <http://www.capewind.org/FAQ-Category4-Cape+Wind+Basics-Parent0-myfaq-yes.htm> (last visited Feb. 7, 2014) (providing details about the Cape Wind project parameters) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

70. See Kimmell & Stalenoef, *supra* note 68, at 200–01 (describing the Cape Wind project).

71. See *id.* (“The wind speeds in Nantucket Sound are high, averaging 19.75 miles per hour (mph), . . . ‘outstanding’ from a technical perspective. . . . Moreover, the wind blows strongest in Nantucket Sound at precisely the times of peak energy demand . . .”).

72. See *id.* (noting the location of the Cape Wind project).

73. See *id.* at 201–02 (discussing opposition to the Cape Wind project).

74. See *id.* (noting the extent to which the Alliance opposed the Cape Wind project).

75. See *id.* at 222 (discussing the legal ramifications of the Cape Wind project's location).

76. See *Alliance to Protect Nantucket Sound, Inc. v. Energy Facilities Siting Bd.*, 932 N.E.2d 787, 793 (Mass. 2010) (describing the federal, state, and local approvals needed for the Cape Wind project to proceed).

77. Kimmell & Stalenoef, *supra* note 68, at 207.

78. See *Alliance to Protect Nantucket Sound, Inc.*, 932 N.E.2d at 794 (noting the Commission's denial of the construction permit).

79. See *id.* at 795 (describing Cape Wind's actions following the denial of the construction permit).

granted the superseding permit.⁸⁰ The Alliance sued the siting board, arguing the board did not have authority under the public trust doctrine to issue a permit for offshore energy development.⁸¹ They also argued that even if the siting board did have authority, it violated its duties as a trustee by considering only the transmission lines in state waters, and not the entirety of the Cape Wind proposal.⁸² A divided court held that the siting board had public trust authority to approve offshore wind energy projects.⁸³ They also held that due diligence did not require review beyond the transmission lines themselves.⁸⁴ Chief Justice Marshall issued a strongly worded dissent.⁸⁵ The rationales issued by both the majority and the dissent reflects the doctrine's three areas of legal uncertainty, discussed in the next section.

IV. Unanswered Questions

This section explores three indeterminate areas of public trust law. First, it explores the roles that different branches of government have in defining state public trust law. Second, it looks at how states administer fiduciary obligations. Public trust law prohibits states from granting an entire protected area if contrary to the public interest, and requires states to manage protected areas,⁸⁶ but beyond this, courts provide little guidance to state trustees. Third, it examines what constitutes the public interest under the doctrine. Courts must clarify how conflicts between protected uses and resources are resolved.

80. *See id.* (“The siting board issued a tentative decision on May 11, 2009, and then a final decision granting the certificate on May 21, 2009.”).

81. *See id.* at 796 (“Each of the petitioners challenges the siting board's decision on several grounds, and the Alliance and Barnstable separately challenge the validity of a DEP regulation relevant to that decision . . .”).

82. *See id.* at 803 (“The petitioners assert that . . . the siting board was obliged to assess the in-State impacts of the entire wind farm project in making its § 69K certificate decision.”).

83. *See id.* at 800–01 (“[U]nder the public trust doctrine, ‘only . . . an entity to which the Legislature properly has delegated authority, may administer public trust rights.’ . . . [W]here a tidelands license is necessary for a proposed facility, the Legislature has . . . expressly vested authority in the siting board to act in DEP's stead.”).

84. *See id.* (discussing the authority of the siting board to review the project).

85. *See id.* at 816 (“Today's decision . . . is contrary to existing law and seriously undermines the public trust doctrine, which for centuries has protected the rights of the people of Massachusetts in Commonwealth tidelands.”).

86. *See* Ill. Central R.R. v. Illinois, 146 U.S. 387, 435 (1892) (explaining the public trust doctrine and the right of states to use or dispose of public lands).

A. *Who Defines the Public Trust Doctrine?*

In *Alliance to Protect Nantucket Sound v. Energy Facilities Siting Board*, the Board argued that they had public trust authority because of two statutes.⁸⁷ In the first statute, the legislature charged the Department of Environmental Protection with “[serving] a public purpose [providing] a greater public benefit than public detriment to the rights of the public in said lands”⁸⁸

A later statute created the siting board, directing it “to stand in the shoes of any and all [s]tate and local agencies with [energy siting] permitting authority”⁸⁹ Because the Department of Environmental Protection is among the agencies that the board can “stand in the shoes of,” the siting board argued that the second statute transferred public trust authority to them.⁹⁰

The Massachusetts Supreme Judicial Court agreed, holding the statutes taken together granted authority to the board.⁹¹ Chief Justice Marshall dissented, arguing, “[n]owhere in the commission’s charge did the Legislature address *expressly, or by implication*, public trust rights in the Commonwealth’s tidelands” to the Energy Facilities Siting Board.⁹² She reached this conclusion despite noting that the Massachusetts legislature created the Electric Power Plant Siting Commission with the authority to consider “the adequacy of existing state and municipal regulatory procedures to permit the furnishing of a sufficient supply of electric energy while . . . *preserving and protecting land, air and water resources.*”⁹³ The Chief Justice sought an explicit reference to “tidelands, tidewaters, tidal flats, land under coastal waters, the public trust, or the traditional rights of navigation, fishing, and fowling” in order to find that the Siting Board had the requisite authority.⁹⁴ Beyond requiring explicit grants of authority to administrative agencies, neither opinion suggests any limitations upon the

87. See *Alliance to Protect Nantucket Sound, Inc.*, 932 N.E.2d at 800–01 (discussing whether the legislature had delegated public trust authority).

88. *Id.* at 800 (citing Mass. Gen. Laws ch. 91 § 14).

89. *Id.* (citing Mass. Gen. Laws ch. 164 § 69K).

90. See *id.* (stating that the Massachusetts Department of Environmental Protection is a state agency included in the statute).

91. See *id.* at 802 (“[W]e find in § 69K a sufficiently articulated legislative delegation of authority to the siting board to act in the place of DEP, and to administer the public trust rights within DEP’s jurisdiction.”).

92. *Id.* at 820 (Marshall, C.J., concurring in part and dissenting in part).

93. *Id.* (emphasis added) (internal citation omitted).

94. See *id.* at 821 (“The extensive legislative history . . . contains no reference to tidelands, tidewaters, tidal flats, land under coastal waters, the public trust, or the traditional rights of navigation, fishing, and fowling. . . . The silence is deafening.”).

legislature.⁹⁵

B. How Should Trustees Administer Fiduciary Obligations?

Under trust law, “[t]he fiduciary’s duties go beyond mere fairness and honesty; they oblige him to act to further the beneficiary’s interests.”⁹⁶ Under public trust law, however, it remains unclear how trustees should administer obligations.

One scholar stated that “heart of the public trust doctrine . . . is that it imposes limits and obligations on governments.”⁹⁷ Elsewhere, courts emphasize a proactive approach. A Wisconsin court described the trust as requiring an active fiduciary: “[T]he legislature is fully vested with the power of control and regulation . . . [The trust] requires the law-making body to act in all cases where action is necessary, not only to preserve the trust, but to promote it.”⁹⁸ Other courts have urged the state to act even in the face of scientific uncertainty.⁹⁹

The *Alliance* opinion and its administrative antecedents do not overtly state whether the trust is a negative or positive obligation. The Supreme Judicial Court makes no mention of the doctrine being a positive obligation requiring proactive action to protect the public interest.¹⁰⁰ The dissent suggests alternative energy is good policy,¹⁰¹ but normative values play no role in the reasoning. Chief Justice Marshall contends that the siting board cannot reasonably interpret statutory language obligating them with “preserving and protecting land, air and water resources” to implicate the public trust doctrine.¹⁰² By refusing to defer to the board’s interpretation, Chief Justice Marshall implies agencies should not pro-actively further the public interest.¹⁰³

95. See generally *id.* (failing to discuss limitations on legislative authority to define or administer the public trust).

96. Deborah A. DeMott, *Beyond Metaphor: An Analysis of Fiduciary Obligation*, 1988 DUKE L. J. 879, 882 (1988).

97. Charles F. Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C. DAVIS L. REV. 269, 284 (1980).

98. *City of Milwaukee v. State*, 214 N.W. 820, 830 (Wis. 1927).

99. See *In re Water Use Permit Applications*, 9 P.3d 409, 427 (Haw. 2000) (“For the foreseeable future, it will be necessary to manage and protect streams through a system of working presumptions rather than on the basis of firm scientific knowledge.”).

100. See *Alliance to Protect Nantucket Sound*, 932 N.E.2d at 811 (describing the limited scope of the siting board’s authority).⁷

101. See *id.* at 816 (Marshall, C.J., concurring in part and dissenting in part) (agreeing that alternative energy development is vital, but projects must follow applicable law).

102. See *id.* at 820 (“Nowhere in the commission’s charge did the Legislature address expressly, or by implication, public trust rights in the Commonwealth’s tidelands.”).

103. See *id.* at 822 (“The siting board’s authority to grant a composite certificate is broad, but nothing in the statutory language, or its legislative history, indicates that such

Courts, recognizing the ambiguity of the doctrine, have alternately described the scope as “expanding” or “evolutionary.”¹⁰⁴ An “expanding” doctrine risks rendering the doctrine’s bounds unknowable since courts have already expanded it to include areas ranging from streets to prehistoric fossil beds, and to include uses as diverse as aesthetic enjoyment and cultural considerations.¹⁰⁵ As Huffman warned: “[I]f a public right to fish implies a public right to camp and a navigable waterway implies a prairie pothole . . . then there can be no rule of law because there is no bounded concept to constrain the judge.”¹⁰⁶ Further, expansion implies continuous growth.¹⁰⁷ What if the public interest requires contraction?

The doctrine has also been described as “evolutionary” or “flexible” and subject to changing public needs: “The public trust doctrine, like all common law principles, should not be considered fixed or static but should be molded and extended to meet changing conditions and needs of the public it was created to benefit.”¹⁰⁸ Though the “evolutionary” view allows for both expansion and contraction, there is no clear path forward. States, citizens, and courts may disagree about how the doctrine should evolve.¹⁰⁹

Rather than an expanding or evolving doctrine, courts can also balance competing values. A California court allowed offshore oil and gas development only if:

[T]he board first found that the particular lands are not required and with reasonable certainty will not be required for a period of twenty-five years for the promotion of commerce, navigation or fishing. The section also provides that money derived . . . shall be used exclusively for improvement and maintenance of the harbor.¹¹⁰

authority encompasses the power to act with respect to public trust rights.”).

104. See Timothy Patrick Brady, Note, *But Most of It Belongs to Those Yet to Be Born: The Public Trust Doctrine, NEPA, and the Stewardship Ethic*, 17 B.C. ENVTL. AFF. L. REV. 621, 631 (1990) (stating that courts have made a wide use of the public trust doctrine in a variety of disputes).

105. See *id.* at 631–32 (discussing the expansion of the public trust doctrine beyond navigable waters and the shorelines to city streets, municipal water supplies, a prehistoric fossil bed, an inland state park, an inland national part, and inland wetlands).

106. Huffman, *supra* note 40, at 96.

107. See Brady, *supra* note 104, at 631–32 (discussing the increasing use of the public trust doctrine).

108. *Borough of Neptune City v. Borough of Avon-by-the-Sea*, 294 A.2d 47, 55 (N.J. 1972).

109. See Brady, *supra* note 104, at 631–33 (discussing the criticisms of the modern public trust doctrine).

110. *City of Long Beach v. Marshall*, 82 P.2d 362, 364 (Cal. 1938).

In that case, the doctrine did not expand or evolve to preserve offshore oil and gas.¹¹¹ The court instead balanced competing values: protection of public uses, protection of natural resources, and energy development.¹¹²

All three approaches to the doctrine can hypothetically involve a state considering the effects upon one individual resource, or upon all state resources collectively. In *National Audubon Society v. Superior Court*,¹¹³ the California high court held that the state may consider state resources in their totality.¹¹⁴ The Massachusetts high court decided *Alliance* on narrow grounds and did not firmly state whether “in-state impacts” referred to impacts on Nantucket Sound or protected areas throughout the state.¹¹⁵ The dissent noted the importance of transitioning to alternative sources of energy, but only mentioned harm to Nantucket Sound.¹¹⁶

C. What Constitutes the Public Interest?

The public trust doctrine requires states to act in the public interest, but definitions of public interest are unclear. The *Illinois Central* Court defined public use as the public interest: “[States may] use or dispose . . . [of resources only] when that can be done without substantial impairment of interest of the public in the waters”¹¹⁷ The Court went on to state that, “[the resources are] held in trust for the people of the *State* that they may enjoy the navigation of the waters, carry on commerce over them, and have the liberty of fishing”¹¹⁸ The Court also noted that some public uses, especially navigation and commerce, were prioritized over others.¹¹⁹

111. *See id.* at 365 (discussing the established law concerning ownership of tidelands).

112. *See generally id.* (ensuring that the state’s duty to public uses, natural resources, and energy were all fulfilled).

113. 658 P.2d 709 (Cal. 1983).

114. *See id.* at 727 (discussing the interrelationship between the Public Trust Doctrine and the California Water Rights System).

115. *See Alliance to Protect Nantucket Sound v. Energy Facilities Siting Bd.*, 932 N.E.2d 787, 806 (Mass. 2010) (“We emphasize that the siting board properly could, and did, consider the in-State impacts of the entire length of Cape Wind’s transmission lines even though the lines will lie in part in Federal waters because those impacts relate directly to the ‘facility’ over which the siting board has jurisdiction.”).

116. *See id.* at 816–25 (Marshall, C.J., concurring in part and dissenting in part) (discussing the legislature’s goal to ensure that state and municipal regulatory procedures “balance the need for sufficient electric energy with environmental protection, public health and public safety”).

117. Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 435 (1892).

118. *Id.* at 452.

119. *See id.* at 457 (“The land remained subject to all other public uses as before,

In *Alliance*, the majority said that “[the public trust doctrine] expresses the government’s long-standing and firmly established obligation to protect the public’s interest in the tidelands and, *in particular, to protect the public’s right to use the tidelands ‘for, traditionally, fishing, fowling, and navigation.’*”¹²⁰ The dissent countered that the doctrine represents “[c]enturies of legislation and jurisprudence concerning the paramount rights of the people of the Commonwealth to the use of the sea and shore.”¹²¹ The dissent went on to state that “[n]owhere in the commission’s charge did the Legislature address expressly, or by implication, public trust rights in the Commonwealth’s tidelands.”¹²²

Other times, courts have emphasized the resources themselves. The California Supreme Court stated that,

there is a growing public recognition that one of the most important public uses of the tidelands—a use encompassed within the tidelands trust—is the preservation of those lands in their natural state, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area.¹²³

In upholding a county ban on recreational watercraft, the Washington Supreme Court found that it did not interfere with the public use of waters, stating that, “it would be an odd use of the public trust doctrine to sanction an activity that actually harms and damages the waters and wildlife of this state.”¹²⁴

In *Alliance*, though both opinions define the public interest as public use, neither opinion mentions specific examples of the turbines or transmission lines interfering with public uses.¹²⁵ In fact, “[t]he site at Horseshoe Shoals is not considered an important commercial fishery; it is not listed as important habitat for any rare marine species, and it is not

especially to those of navigation and commerce, which are always paramount to those of public fisheries.”)

120. *Alliance to Protect Nantucket Sound*, 932 N.E.2d at 799 (emphasis added) (quoting *Moot v. Dept. of Env'tl. Prot.*, 861 N.E.2d 410, 412 (Mass. 2007).

121. *Id.* at 817 (Marshall, C.J., concurring in part and dissenting in part).

122. *Id.* at 820.

123. *Marks v. Whitney*, 491 P.2d 374, 381 (Cal. 1971).

124. *Weden v. San Juan County*, 958 P.2d 273, 285 (Wash. 1998).

125. *See generally Alliance to Protect Nantucket Sound*, 932 N.E.2d 787 (failing to discuss instances where wind power projects interfere with public land and water uses).

located within a busy navigational channel.”¹²⁶ Perhaps, then, the court’s true concern is with resources rather than with public uses.

V. Moving Forward

Massachusetts Supreme Court Chief Justice Marshall states in her dissent that “[t]he public trust doctrine and government energy policy are not at odds. Indeed, they are complementary. Both express the people’s paramount interest in the wise and fruitful use of natural resources. Today’s opinion, however, casts these two allies in opposition, and exalts regulatory expediency at the cost of fiduciary obligation.”¹²⁷ The public trust doctrine and energy policy should be complementary. The conflict in *Alliance*, however, was the result of ambiguity that existed long before anyone conceived of offshore wind energy.¹²⁸

The public trust doctrine protected and preserved vital coastal and offshore resources for two hundred years, but it now endangers those same resources. This section reconciles the doctrine’s ambiguity by proposing answers to the three questions raised above. Without resolving these areas of ambiguity, state obligations, public rights, and court interpretations will remain indeterminate.

A. Three Underlying Assumptions for Fulfilling Public Trust Duties

1. Legislatures and Administrative Agencies Should Have Broad Interpretive Discretion, But Courts Must Establish and Enforce Limits.

Within the broad boundaries of *Illinois Central*, the Court allowed states to define the public trust doctrine but did not clearly demarcate the roles of the different branches of government.¹²⁹

The legislature is most able to consider the public interest.¹³⁰ Courts must allow for legislative discretion so the doctrine can develop with the public interest. The trust is an intermediary between a state and its citizens.¹³¹ Surely then, a legislature cannot have unlimited capacity to

126. Kimmell & Stalenhoef, *supra* note 68, at 201.

127. *Alliance to Protect Nantucket Sound*, 932 N.E.2d at 825 (Marshall, C.J., concurring in part and dissenting in part).

128. See Kearney & Merrill, *supra* note 4, at 803 (discussing the role that the *Illinois Central* decision plays in creating ambiguities in the public trust doctrine).

129. See Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387, 453 (1892) (defining the terms of the public trust doctrine).

130. See Sax, *supra* note 3, at 551 (stating that the task of addressing the public interest is essentially one for the legislature).

131. See *id.* at 477 (discussing the trustee relationship between the state and its

define the doctrine or it would become as broad as the state police power, making it redundant.¹³² Courts must therefore establish and enforce limits to legislative discretion.

Environmental law relies on administrative agencies for implementation.¹³³ Legislatures must grant fiduciary authority to agencies. Agencies, as experts, should have wide latitude to interpret enabling statutes. For the same reasons as the legislature, courts must establish limits.

2. Trustees Must Actively Promote the Public Interest by Balancing Costs and Harms to All State Resources.

Private fiduciary duties require trustees “to act to further the beneficiary’s best interests.”¹³⁴ Unless the name of the doctrine is hyperbole, public trustees must be able to serve the public interest.¹³⁵ In order to properly empower trustees to pursue the public interest, the doctrine must be both a positive right to create benefits, and a negative right to avoid harm.¹³⁶

Courts sometimes describe the doctrine’s scope as an expanding doctrine, implying continual expansion to more protected areas and uses.¹³⁷ In certain cases, however, the public interest may require contraction.¹³⁸ Others view the doctrine as evolutionary or flexible, subject to changing public needs.¹³⁹ States, citizens, and courts may disagree about the

citizens).

132. *See id.* (differentiating the public trust authority from more expansive forms of state power).

133. *See, e.g., Our Mission and What We Do*, ENVTL. PROT. AGENCYPA.GOV (June 3, 2013), <http://www.epa.gov/aboutepa/> (describing the EPA’s mission and role in implantation of federal environmental laws).

134. *See DeMott, supra* note 96, at 882 (explaining the general principles of fiduciary obligations).

135. *See id.* (stating that a trustee’s duty to “act to further the beneficiary’s best interests” implies that those trustees serving the public should work to satisfy the public’s best interests).

136. *See Haochen Sun, Toward a New Social-Political Theory of the Public Trust Doctrine*, 35 VT. L. REV. 563, 604–05 (2001) (describing both the positive and negative rights within the public trust doctrine).

137. *See Brady, supra* note 104, at 631 (listing several instances where courts have applied the public trust doctrine in an expansive way).

138. *See id.* at 632–33 (addressing criticisms of courts’ expansive use of the public trust doctrine).

139. *See e.g., Borough of Neptune City v. Borough of Avon-by-the-Sea*, 294 A.2d 47, 55 (N.J. 1972) (“The public trust doctrine, like all common law principles, should not be considered fixed or static, but should be molded and extended to meet changing conditions and needs of the public it was created to benefit.”).

doctrine's evolutionary path, however.¹⁴⁰

Rather than an expanding or evolving doctrine, courts should balance competing values. A balancing approach would allow states to consider resources in total rather than individually.¹⁴¹

3. *The Doctrine's Primary Interest is the Protection of Natural Resources.*

The public trust doctrine requires states to act in the public interest, but the definition of "public interest" is unclear.¹⁴² Sometimes, courts define the public interest as protecting both public use of natural resources and protection of the resources themselves.¹⁴³ Other times, courts emphasize one over the other.¹⁴⁴

Public uses cannot exist without natural resources.¹⁴⁵ If offshore waters disappear, no public use of the waters is possible. Conversely, natural resources *can* exist without public uses. If no one fishes, fowls, or navigates on offshore waters, those resources will not disappear. Thus, all else being equal, resource preservation should take priority.

B. *Six Proposed Requirements for Fulfilling Public Trust Duties*

State actions risking harm to a protected resource or a protected use presumptively violate the public trust doctrine.¹⁴⁶ The *Alliance* opinion interprets the doctrine to require only legal authority and due diligence.¹⁴⁷ This section expands upon those requirements and then proposes four additional requirements.

140. See Zachary C. Kliensasser, note, *Public and Private Property Rights: Regulatory and Physical Takings and the Public Trust Doctrine*, 32 B.C. ENVTL. AFF. L. REV., 421, 433 (2005) (noting where authorities disagree on the evolution of the public trust doctrine).

141. See Sax, *supra* note 3, at 517 (noting that the court in *Public Service Commission* balanced the provision of a "more substantial bathing beach and better park facilities" with fish production and the effect on navigation).

142. See Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 703 (1986) (acknowledging that public interest as applied in the public trust doctrine is a vague notion).

143. See generally MICHAEL BLUMM ET AL., *THE PUBLIC TRUST DOCTRINE IN THIRTY-SEVEN STATES* (2013) (surveying the use of the public trust doctrine in thirty-seven states).

144. See generally *id.* (illustrating the various ways that the courts of thirty-seven states apply the public trust doctrine).

145. See Lazarus, *supra* note 142, at 632 (noting that the public trust doctrine rests on "the notion that the public possesses inviolable rights in certain natural resources").

146. See Sax, *supra* note 3, at 500–01 (citing a case in which a court was skeptical of administrative discretion over the public use of wetlands because of a recent law emphasizing the protection of "water resources, fish and wildlife").

147. See *Alliance to Protect Nantucket Sound v. Energy Facilities Siting Bd.*, 932 N.E.2d 787, 800 (Mass. 2010) (stating that under the public trust doctrine, only the state, or an entity to which the state has delegated authority, can "administer public trust rights").

1. State Fiduciaries Must Have Legal Authority.

A grant of public trust authority prevents agencies from acting without authority, but gives legislatures discretion to delegate.¹⁴⁸ Legislative language enabling agencies to “[preserve and protect] land, air and water resources”¹⁴⁹ adequately grants trust authority.

2. State Fiduciaries Must Exercise Due Diligence in Determining if Actions Are in the Public Interest.

In *Alliance*, the justices disagreed about whether the siting board exercised due diligence.¹⁵⁰ Under the doctrine, states must examine the risk of harmful impacts.¹⁵¹ Due diligence requires open decision-making.¹⁵² This requirement places a limitation upon legislative and administrative discretion, lest public resources or uses be given over to private interests.¹⁵³

3. State Fiduciaries Must Mitigate Harm.

To the extent possible, states must mitigate harm. In response to the opposition, Cape Wind changed locations and reduced the number of turbines.¹⁵⁴ Cape Wind sited the project so it was barely visible from the shore.¹⁵⁵ The site was also selected so as to not interfere with navigation, sensitive animal species, or commercial fishing.¹⁵⁶

148. See *id.* (internal quotations omitted) (“[U]nder the public trust doctrine, only the Commonwealth or an entity to which the Legislature has properly delegated authority, may administer public trust rights.”).

149. See *id.* at 820 (Marshall, C.J., concurring in part and dissenting in part) (describing the legislature’s grant of authority to the Electric Power Plant Siting Commission).

150. See *id.* at 816–25 (Marshall, C.J., concurring in part and dissenting in part) (arguing that, contrary to the majority’s finding, the siting board did not conduct adequate due diligence).

151. See *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 435 (1892) (“[S]overeignty over lands covered by tide waters . . . belong to the respective States within which they are found, with the consequent right to use or dispose of any portion thereof, when that can be done without substantial impairment of the interest of the public.”).

152. See Sax, *supra* note 3, at 564 (emphasizing the importance of a public record in agency decision-making regarding public trust resources).

153. See *Alliance to Protect Nantucket Sound*, 932 N.E.2d at 817 (Marshall, C.J., concurring in part and dissenting in part) (“The public trust doctrine stands as a covenant between the people of the Commonwealth and their government, a covenant to safeguard our tidelands for all generations for the use of the people.”).

154. See Kimmell & Stalenhoef, *supra* note 68, at 209 (noting that the Cape Wind Project reduced the number of turbines from 170 to 130 and modified the location of some to preserve the view from historic sites).

155. See *id.* (describing the visibility of wind turbines from points of interest along the Cape).

156. See *id.* at 201 (explaining that the site of the wind turbines “is not considered an

4. *State Fiduciaries Must Continuously Manage Protected Resources and Uses.*

Under *Illinois Central*, states cannot forgo their duty to supervise protected resources or uses.¹⁵⁷ The Court commented: “The control of the state for the purposes of the trust can never be lost, except as to such parcels as are used in promoting the interests of the public”¹⁵⁸ This is true even where the state grants use of the land to municipalities or other entities.¹⁵⁹

5. *State Action that Risks or Causes Substantial Harm to a Protected Resource Must Be Outweighed By Benefits to the Entire State’s Resources.*

This constraint gives meaning to the public trust doctrine. Without resource preservation being the paramount public interest, the doctrine becomes redundant.¹⁶⁰ The constraint prevents an action that largely eliminates a public resource (e.g., a waterfront turned into a railroad).¹⁶¹ States must balance competing considerations and avoid action if the benefits do not clearly outweigh the costs.¹⁶²

Under this analysis, the doctrine prohibits offshore oil rigs and nuclear plants because they cause substantial harm to protected resources without a corresponding benefit to other resources.¹⁶³ Offshore wind turbines also cause harm to a protected resource, but they mitigate greenhouse gas emissions, and in doing so, benefit other resources.¹⁶⁴

important commercial fishery; it is not listed as important habitat for any rare marine species, and it is not located within a busy navigational channel”).

157. See *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 452 (1892) (“The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, . . . than it can abdicate its police powers in the administration of government and the preservation of the peace.”).

158. *Id.* at 453.

159. See *id.* (discussing the limited ability of the state to grant to other parties public trust lands and resources).

160. See Lazarus, *supra* note 142, at 632 (emphasizing the importance of natural resource preservation in the public trust doctrine).

161. See *Ill. Cent. R.R.*, 146 U.S. at 453 (explaining that the state cannot “substantially impair” the public interests under the public trust doctrine).

162. See Sax, *supra* note 3, at 561–65 (arguing that courts should evaluate administrative and legislative decisions on public trust issues by balancing public and private interests).

163. See Hope M. Babcock, *A Risky Business: A Generation of Nuclear Power and Deepwater Drilling for Offshore Oil and Gas*, 37 COLUM. J. ENVTL. L. 63, 64–66 (2012) (addressing current hesitancy towards nuclear power and offshore drilling as a result of recent disasters); *Alliance to Protect Nantucket Sound*, 932 N.E.2d at 817 (Marshall, C.J., concurring in part and dissenting in part) (“A wind farm today may be a drilling rig or nuclear power plant tomorrow.”).

164. See Klass, *supra* note 10, at 1064–65 (endorsing modern renewable energy

6. *State Action that Risks or Causes Substantial Harm to a Protected Public Use Must Be Outweighed By Benefits to Protected Resources or the Public Interest Generally.*

The public trust doctrine has always prioritized certain public uses over others, particularly navigation.¹⁶⁵ Legislatures and agencies should have wide discretion to regulate the use of a resource. While the law recognizes *de facto* uses like navigation and fishing, legislatures and agencies have discretion to regulate to preserve natural resources or better serve the public interest.¹⁶⁶ The risk to public uses is already minimal because of the previous requirements.

VI. *Conclusion*

Many scholars argue that the public trust doctrine and other environmental laws must adapt for climate change.¹⁶⁷ The problem, though, is one of uncertainty rather than unwillingness. Ambiguity creates several reasonable but competing interpretations of *how* the law should adapt.

Some scholars argue that the severity of climate change warrants an “any means necessary” approach allowing any state action that mitigates or adapts to climate change.¹⁶⁸ This approach, however, wrongly presumes

projects based on the public trust values they promote).

165. See *In re Trempealeau Drainage Dist.*, 131 N.W. 838, 841–42 (Wis. 1911) (holding that navigation can be improved even if fishing is substantially damaged); *City of Milwaukee v. State*, 214 N.W. 820, 832 (Wis. 1927) (holding that a harbor could be built despite harming fishing and recreation because it improved navigation).

166. See *Alliance to Protect Nantucket Sound*, 932 N.E.2d at 800 (internal quotation omitted) (“The public trust doctrine expresses the government’s long-standing and firmly established obligation to protect the public’s interest in the tidelands and, in particular, to protect the public’s right to use the tidelands for, traditionally, fishing, fowling, and navigation.”).

167. See generally David D. Caron, *Time and the Public Trust Doctrine: Law’s Knowledge of Climate Change*, 35 U. HAW. L. REV. 411 (2013) (discussing the public trust doctrine’s adaptation to climate change); Laura Householder, *Have We All Gone Batty? The Need for a Better Balance Between the Conservation of Protected Species and the Development of Clean Renewable Energy*, 36 WM. & MARY ENVTL. POL’Y REV. 807 (2011) (discussing the public trust doctrine’s use in renewable energy development).

168. See Nagle, *supra* note 58, at 90 (noting that people under this approach believe “that climate change presents such an overwhelming threat that drastic actions are justified to avoid it”); Householder, *supra* note 167, at 820 (“While it is important to encourage renewable energy development, it is imperative that Congress enable the most environmentally friendly forms to succeed.”); David M. Driesen, *Exempting Climate Mitigation from OIRA Review*, REG BLOG (Jan. 24, 2013), <https://www.law.upenn.edu/blogs/regblog/2013/01/24-driesen-climate-mitigation.html> (suggesting that the Obama Administration should take on climate change aggressively) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

that we know the means by which to mitigate climate change.¹⁶⁹ Moreover, environmental law rarely takes such an approach.¹⁷⁰ As with the public trust doctrine, courts weigh environmental values against each other¹⁷¹ and against non-environmental values.¹⁷² Other scholars suggest the opposite, arguing that environmental values should be balanced against all other societal values in one all-encompassing balancing test.¹⁷³ That balancing, however, compounds the problem by introducing more amorphous values with no predictable way to weigh them.

If environmental law is to continue serving the public interest, it must expressly define and incorporate more than just environmental values. Doing so in a consistent way will inform states and private parties of their obligations, and citizens of their rights.

Sustainable development provides a means of clarifying environmental law. As one scholar describes it:

During the past twenty years . . . an increasing number of law firms, public officials, and scholars [view] environmental, land use, real estate, energy, and other related fields of law as an integrated area of practice and scholarship [This serves as] a unifying concept that provides the insights and strategies needed to address the nation's heightened concern over climate change.¹⁷⁴

Sustainable development recognizes that resources are finite, and that states must base decisions on the needs of both current and succeeding generations.¹⁷⁵ Sustainable development explicitly balances environmental,

169. See generally Clara Deser et al., *Uncertainty in Climate Change Projections: The Role of Internal Variability*, 38 CLIM. DYN. 527 (2012) (discussing the lack of certainty in the climate change projections on the concrete effects of climate change).

170. See, e.g., National Environmental Policy Act, 42 U.S.C. § 4332 (2014) (“[T]he Federal Government shall utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man’s environment.”).

171. See Nagle, *supra* note 58, at 102–04 (explaining how courts balance public interest decisions).

172. See *Carstens v. California Coastal Comm’n*, 227 Cal. Rptr. 135, 144 (Cal. Ct. App. 1986) (“We find nothing in article X, section 4 to preclude the Commission from considering commerce as well as recreational and environmental needs in carrying out the public trust doctrine.”).

173. See Nagle, *supra* note 58 at 103 (“If balancing is to be done, it should place all of the factors on the scale”).

174. John R. Nolon, *Shifting Paradigms Transform Environmental and Land Use Law: The Emergence of the Law of Sustainable Development*, 24 FORDHAM ENVTL. L. REV. 242, 245 (2013).

175. See GRO H. BRUNTLAND, OUR COMMON FUTURE: THE WORLD COMMISSION ON

economic, and social values.¹⁷⁶ Thus, a shift towards a sustainability model would allow for a balancing of specific economic and social values from within the law itself, rather than as elements of an amorphous public interest.¹⁷⁷

Will environmental law continue to protect natural resources for current and future generations? Or will it cease being a coherent body of law? The public test doctrine, perhaps the oldest environmental law, serves as the test case.

ENVIRONMENT AND DEVELOPMENT 43 (1987) (explaining that sustainable development should “meet the needs of the present without compromising the ability of future generations to meet their own needs”).

176. See generally JOAN FITZGERALD & MICHAEL J. MOTTA, CITIES AND SUSTAINABILITY: THEORETICAL PERSPECTIVES ON CITIES AND SUSTAINABILITY (2012) (discussing the purpose and goals of sustainable development).

177. See BRUNTLAND, *supra* note 178, at 43 (arguing that sustainability cannot be achieved without policies that consider costs and benefits).