

ARTICLES

THE PUBLIC TRUST: THE LAW'S DNA

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I. INTRODUCTION

Of all the environmental threats we currently face, perhaps none is as great or as daunting as climate change due to greenhouse gas emissions from human activities.¹ It is not an understatement to say that these greenhouse gas emissions threaten all living systems on Earth, including human civilization. Despite the imminent threat that greenhouse gas emissions pose, government² remains unwilling to take the requisite actions to significantly reduce emissions and address climate change. Unless immediate action is taken to curb greenhouse gas emissions, the

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1. We define climate change broadly to include all impacts resulting from changing the energy balance of Earth through an increase of greenhouse gas emissions. Our definition of climate change includes, among other things, changes in temperature, precipitation, and wind patterns, as well as ocean heating and ocean acidification. For a discussion of the change in planetary energy balance due to greenhouse gas emissions, see James Hansen et al., *Assessing “Dangerous Climate Change”: Required Reduction of Carbon Emissions to Protect Young People, Future Generations, and Nature*, 8(12) PLOS ONE 1, 5 (2013), <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081648>.

2. When we say “government” we mean both federal and state governments and are referring to all three branches of government. Additionally, while the focus of this article is the United States, much of the analysis is applicable internationally, and thus government could also include foreign governments.

impacts of climate change will be catastrophic and irreversible. Climate change is contributing to melting sea ice and glaciers, an increase in pest and disease outbreaks, a rapid decline in biodiversity, and an increasing frequency of extreme weather events such as heat waves, floods, droughts, and tropical cyclones.³ Rising sea levels are inundating island nations and coastal cities; droughts threaten to undermine agricultural production and reduce crop productivity; and record-setting forest fires are destroying homes and massive swaths of forests.⁴ Climate change presents a global challenge unlike any other that we have faced as a human civilization.

When government fails to take action on a pressing issue like climate change, the question becomes, how can citizens hold government accountable for its actions, and inactions, when faced with an impending crisis? If we were being invaded by another country, confronted with a meteor spiraling towards Earth, or forced to deal with some other imminent threat to our very existence, we would expect our government to respond and to take the necessary measures to protect us. Climate change is no different—it truly *requires* governmental action. In the face of this planetary crisis, citizens should be able to rely on their government to protect their fundamental and inherent rights to a stable climate system and a livable future. When government fails to defend these rights, the public trust doctrine is a legal tool

3. See generally INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY: SUMMARY FOR POLICYMAKERS (Mar. 31, 2014) [hereinafter IPCC, CLIMATE CHANGE 2014], available at <http://www.ipcc-wg2.gov/AR5/report>; INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, MANAGING THE RISKS OF EXTREME EVENTS AND DISASTERS TO ADVANCE CLIMATE CHANGE ADAPTATION: SPECIAL REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 40, 133–40 (2007); World Health Organization, *Climate Change and Health: Key Facts*, <http://www.who.int/mediacentre/factsheets/fs266/en/index.html> (last visited Feb. 12, 2014); EPA, *Agriculture and Food Supply*, <http://www.epa.gov/climatechange/impacts-adaptation/agriculture.html> (last visited Feb. 12, 2014).

4. IPCC, CLIMATE CHANGE 2014, *supra* note 3; Hansen et al., *supra* note 1, at 6, 8; see also ASIAN DEV. BANK, ADDRESSING CLIMATE CHANGE AND MIGRATION IN ASIA AND THE PACIFIC 10 (2012), available at <http://www.adb.org/sites/default/files/pub/2012/addressing-climate-change-migration.pdf>; IPCC, MANAGING THE RISKS OF EXTREME EVENTS AND DISASTERS TO ADVANCE CLIMATE CHANGE ADAPTATION: SPECIAL REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 178 (2007); HUGH TURREL ET AL., FOOD & AGRIC. ORG. OF THE U.N., CLIMATE CHANGE, WATER, AND FOOD SECURITY, at xvii–xviii (2011), available at <http://www.fao.org/docrep/014/i2096e/i2096e.pdf>; WORLD BANK, TURN DOWN THE HEAT: WHY A 4°C WARMER WORLD MUST BE AVOIDED 95, 138 (2012) (for migration projection in South Asia and Southeast Asia).

citizens can use to compel government action to protect both present and future generations from the irreversible and catastrophic impacts of climate change.

Governmental inaction, and inadequate action, on climate change directly contravenes one of the most fundamental purposes of our government—facilitating the re-creation of ourselves, our institutions, and our civilizations. Admittedly, inquiring about the purpose of government will generate all manner of responses; however, one central purpose of government is to protect the essential natural resources that enable our society to function, evolve, and reproduce for future generations. This purpose is clearly articulated in the public trust doctrine, which imposes duties on government and instills certain inalienable rights in the people. The public trust doctrine constitutes the sovereign legal obligation that facilitates the reproduction and survival of our society; it is akin to legal DNA.⁵

Just as DNA carries all of the information for the construction and reproduction of our bodies, so too the public trust doctrine carries all of the information for the construction and reproduction of a healthy society. DNA is “one of the building blocks of the body” like the public trust doctrine is one of the building blocks of the law.⁶ The public trust doctrine serves as the foundation for standards of governmental conduct—it is integral to the operating code of government and carries critical information about how government will function in the natural and socio-political world.

The concept of the public trust doctrine is simple: certain natural resources—such as air, water, and the sea—that are essential for all humans are held in trust by government for the benefit of all people, including future generations. Government is the trustee for these resources, the trust *res*, and has a fiduciary duty to protect the resources for the beneficiaries of the trust—present and future generations. Like DNA, which contains instructions and information that allows organisms to develop, survive, and reproduce, the public trust doctrine contains instructions and information for our government that, if followed,

5. Deoxyribonucleic acid.

6. Ananya, Mandal, *What is DNA?*, NEWS MEDICAL, <http://www.news-medical.net/health/What-is-DNA.aspx> (last visited Feb. 10, 2014).

will allow our constituted society to develop, survive, and reproduce.

The public trust doctrine is the DNA from which legitimate power is created; no matter how government grows, changes, and adapts to its environmental stressors, it can never separate itself from its inherent characteristics perpetuated by the natural authority of that DNA. The public trust doctrine instructs our government to protect and preserve for both present and future generations the right of all citizens to enjoy natural resources free from substantial impairment or depletion. This public trust DNA distinguishes governments of citizens from lords over serfs and ensures the perpetuity of the natural common property necessary for a free people and their posterity.⁷ Unfortunately, it is abundantly clear that government is turning its back on this legal DNA, and as a result, imperiling the future of nations and human civilization as we know it. By failing to take action on climate change, government is not simply putting individual species or natural resources at risk, as occurs with specific timber sales or the pollution of a particular waterway. It is putting civilization as we know it at risk—and that is a big risk. Once we have eliminated the capacity of civilization and its people to reproduce itself, all that our government was created to protect is compromised.

Responding to the threat of climate change presents a unique challenge for government because the impacts of climate change are long-lived and do not occur immediately. Carbon dioxide can persist in the atmosphere for centuries, and while there, it continuously acts to further heat the planet.⁸ This means that Earth's climatic response to a higher concentration of atmospheric carbon dioxide is a function not only of recent emissions, but the persisting share of prior emissions. Due to the long-lived nature of carbon dioxide and the fact that Earth will continue to warm for some time, even after emissions cease completely, government must address carbon dioxide and other greenhouse gas emissions *before* the full consequences of climate change are realized. Government must demonstrate foresight that individual citizens may not have. This required foresight makes the government's trusteeship all the more important.

7. Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 484 (1970).

8. Hansen et al., *supra* note 1, at 4.

Many aspects of the growth and development of human civilization have led to the perilous situation we are now presented with, but one of the most deleterious effects of the last generation has been the rising societal value of convenience, and the parallel barometer of the market for determining correctness of a political or legal result. Government routinely makes decisions that are most favorable to markets and that will create the greatest economic value, irrespective of the negative social and environmental impacts. Government's shift away from its purpose and disregard for its legal DNA has blurred the important distinction between consumers and citizens. The fundamental obligation of government is not to us as consumers, but to us as citizens. Government's obligation to us as citizens is to protect the natural wealth that enables us to reproduce our civilization and function as a constitutional republic. Government cannot ignore its fundamental obligation to us as citizens any more than an organism can reject its DNA. Unfortunately, government is failing to come anywhere close to protecting the essential natural resources we rely on for our survival and well-being, and as a result, we are facing a planetary crisis of unimaginable magnitude.

In this article we examine the contours of the public trust doctrine and explain why it may be a powerful tool to address a pressing issue like climate change. In Part II we outline the scope and purpose of the public trust doctrine as it has taken expression in our law. We explore the sources of the public trust doctrine and show its pre-constitutional and constitutional dimensions. Then we show that although the public trust doctrine is commonly treated as a state doctrine, it is also incumbent upon the federal government, and we illustrate how it is incorporated into federal jurisprudence. In Part III we confront various objections to imposing a trust duty on the management of the atmospheric resource for purposes of addressing climate change. We address the political question objection as well as various criticisms rooted in the doctrine of displacement. Finally, in Part IV, we outline the role of the judiciary in enforcing government's public trust duty.

II. THE PUBLIC TRUST DOCTRINE

A. *The Scope and Purpose of the Public Trust Doctrine*

The public trust doctrine is a “principle of vital importance” that refers to the general fiduciary obligation of government toward its citizens, and to the related, fundamental understanding that no legislature can abdicate or irrevocably alienate its core sovereign powers.⁹ The public trust doctrine is frequently described as being of Roman origin, stemming from the Roman understanding that certain types of property, known as *res communes*, have a distinct character requiring unique treatment.¹⁰ At common law, these unique types of property are known as *jus publicum*, which recognizes that certain natural resources are public property owned by government for the people.¹¹ The public trust doctrine is meant to protect those resources that have an inherently public character and are not owned in the same way as traditional property. Early cases recognized marine resources, tidal waters and the submerged land beneath them, and navigable waters as resources protected by the public trust doctrine.¹² However, the scope of protected public resources has evolved to include resources such as non-navigable

9. *Butchers' Union, Co. v. Crescent City, Co.*, 111 U.S. 746, 766 (1884); *see* Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387, 455 (1892); *Stone v. Mississippi*, 101 U.S. 814, 819–20 (1879).

10. *See Geer v. Connecticut*, 161 U.S. 519, 525 (1896) (“*res communes*” or “things which remain common”); *see also In re Water Use Permit Applications*, 9 P.3d 409, 445 (Haw. 2000) (“In its ancient Roman form, the public trust included ‘the air, running water, the sea, and consequently the shores of the sea.’”). Courts have begun to recognize the breadth of the public trust doctrine and extend it into the modern era. In Texas, for example, a district court held that “the public trust doctrine includes all natural resources of the State including the air and atmosphere.” *Bonser-Lain v. Tex. Comm’n on Envtl. Quality*, No. D-1-GN-11-002194, 2012 WL 2946041 (Tex. 201st Dist. Aug. 2, 2012). The Pennsylvania Supreme Court recently stated: “At present, the concept of public natural resources includes not only state-owned lands, waterways, and mineral reserves, but also resources that implicate the public interest, such as ambient air, surface and groundwater, wild flora, and fauna (including fish). . . .” *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 955 (Pa. 2013) (plurality opinion).

11. *See Caminiti v. Boyle*, 107 Wash. 2d 662, 668–69 (Wash. 1987).

12. *See, e.g., Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387 (1892) (lands under navigable waters); *Martin v. Waddell's Lessee*, 41 U.S. 367 (1842) (navigable waters and lands under them); *Arnold v. Mundy*, 6 N.J.L. 1 (1821) (navigable waters).

tributaries,¹³ wetlands,¹⁴ groundwater,¹⁵ dry sand beaches,¹⁶ wildlife,¹⁷ and the air.¹⁸

Importantly, government does not hold these natural resources in fee simple, but rather holds them in trust for the people and only for purposes that benefit the public interest.¹⁹ Government is a usufructuary rights-holder and cannot allow waste (permanent damage) to the trust resources.²⁰ As Thomas Jefferson once stated: “I set out on these grounds, which I suppose to be self-evident, that the Earth belongs *in usufruct* to the living generation.”²¹ This means that the ability to use the trust resources is limited in two important ways. First, the owners cannot injure the substance itself; and second, they cannot impair the rights of future users by destroying or impairing the resources.²² For example, a riparian landowner with an upstream usufructuary water right cannot impair the substance of the water so as to diminish its quantity or quality in a way that destroys the right of a

13. See, e.g., *Nat'l Audubon Soc'y v. Superior Ct. of Alpine Cnty.*, 658 P.2d 709 (Cal. 1983) (*en banc*).

14. See, e.g., *Just v. Marinette Cnty.*, 201 N.W.2d 761 (Wis. 1972).

15. See, e.g., *In re Water Use Permit Applications*, 9 P.3d 409 (Haw. 2000).

16. See, e.g., *Matthews v. Bay Head Improvement Ass'n*, 471 A.2d 355 (N.J. 1984).

17. See, e.g., *Geer v. Connecticut*, 161 U.S. 519 (1896).

18. See, e.g., *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 955 (Pa. 2013) (plurality opinion); *Bonser-Lain v. Texas Comm'n on Env'tl. Quality*, No. D-1-GN-11-002194, 2012 WL 2946041 (Tex. 201st Dist. Aug. 2, 2012); see also 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, 87 (2009) (“Extrapolating from classic principles of sovereign trust law, the atmosphere can be characterized as a global asset belonging to all nations on Earth.”); Gerald Torres, *Who Owns the Sky?* 19 PACE ENVTL. L. REV. 515, 523–24 (2002) (Air “was generally categorized within that class of assets that were invested with a public character. To the extent that there was a property interest in the sky, it was res communes Air, or properly speaking, the atmosphere, is a resource in which everyone has an interest.”).

19. See Torres, *supra* note 18 (explaining that the management of the resources held in trust by the government is governed historically by principals of trust law).

20. Brief of Law Professors as Amicus Curiae at 19, *Alec L. v. Gina McCarthy*, Case No. 11-cv-02235 (D.C. Cir. 2013), <http://www.ourchildrenstrust.org/sites/default/files/FiledLawProfAmicus.pdf>.

21. Letter from Thomas Jefferson to James Madison (Sept. 6, 1789), in 6 THE WORKS OF THOMAS JEFFERSON 3, 3–4 (Paul Leicester Ford ed., 1904) (emphasis added).

22. See 1 FERDINAND MACKELDEY, COMPENDIUM OF MODERN CIVIL LAW 327–31 (Philip Ignatius Kaufman ed., 12th Germ. ed. 1845); see also Brief of Law Professors as Amicus Curiae, *supra* note 20, at 19; 2 SIR ROBERT CHAMBERS, A COURSE OF LECTURES ON THE ENGLISH LAW, DELIVERED AT THE UNIVERSITY OF OXFORD, 1767–1773, at 85 (Thomas M. Curley ed., 1986).

downstream riparian landowner with a separate usufruct right.²³ Just as holders of a usufructuary right cannot injure the rights of others who are physically downstream, holders should not be allowed to injure the rights of others who are temporally downstream. The public trust doctrine embodies this idea that every generation has a usufructuary right in the resources of the Earth, and those interests are protected by the inherently limited ownership allowed in natural resources.

B. The Sources of the Public Trust Doctrine

While some rights are created by government, others—often the most important pre-existing rights—are inherent to humankind and merely secured by government. The public trust doctrine is one of these inherent rights that pre-dates the United States Constitution. As such, we suggest that the public trust doctrine is the chalkboard on which the Constitution is written. When one writes something on a chalkboard, we see the meaning of the writing, but we commonly forget that there is still a chalkboard that created the space for the writing. We recognize that meaning comes from what is actually written, but there could be no such conveyance of meaning without the chalkboard as a foundation. After all, the Constitution was not written on a blank slate but was written with certain principles and rights in mind. As the chalkboard on which the Constitution was written, the public trust doctrine provides the background and context for the Constitution.

In 1789, when the United States Constitution went into effect, the existing public rights in natural resources such as land, water, air, and wildlife were transferred to the newly formed government for safekeeping for both present and future generations. While some states subsequently chose to memorialize the public trust doctrine in their constitutions,²⁴ the public trust doctrine exists regardless of whether or not it is written down.

A recent decision by the Supreme Court of Pennsylvania clearly articulated this idea that the public trust doctrine is a pre-

23. See, e.g., *Snow v. Parsons*, 28 Vt. 459 (1856).

24. See Robin Kundis Craig, *Adapting to Climate Change: The Potential Role of State Common-Law Public Trust Doctrines*, 34 VT. L. REV. 781, 831–41 (2010) (discussing constitutional public trust provisions in numerous state constitutions, including Rhode Island, Louisiana, Vermont, Illinois, and Hawaii); see also PA. CONST. art. I, § 27.

constitutional idea and an inherent right.²⁵ In *Robinson Township v. Commonwealth*, the Court stated: “[T]he concept that certain rights are inherent to mankind, and thus secured rather than bestowed by the Constitution, has a long pedigree in Pennsylvania that goes back at least to the founding of the Republic.”²⁶ The Court went on to explain that certain rights articulated in Pennsylvania’s Constitution “are inherent in man’s nature and *preserved rather than created* by the Pennsylvania Constitution.”²⁷ These rights include the right to natural resources:

[T]he Commonwealth, prior to the adoption of Article I, Section 27 [Pennsylvania’s Environmental Rights Amendment²⁸] possessed the inherent sovereign power to protect and preserve for its citizens the natural and historic resources now enumerated in Section 27. The express language of the constitutional amendment merely recites the inherent and independent rights of mankind relative to the environment²⁹

The Supreme Court of the Philippines has expressed a similar sentiment. It said that the right of future generations to “a balanced and healthful ecology,” though explicitly incorporated into the Philippine Constitution, “may even be said to *predate all governments and constitutions*. In fact, these basic rights need not even be written in the Constitution for they are assumed to exist from the inception of humankind.”³⁰ These are two examples of courts clearly articulating the idea that some rights, including the public’s right to the protection of natural resources necessary to their continued existence, are inalienable rights that predate the enactment of any constitution. These fundamental rights underlie

25. *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 946–50 (Pa. 2013) (plurality opinion).

26. *Id.* at 948 n.36 (citation omitted).

27. *Id.* at 948 (emphasis added).

28. PA. CONST. art. I, § 27 (“The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania’s public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.”).

29. *Robinson Twp.*, 83 A.3d at 947 n.35 (quotation and citation omitted).

30. *Oposa v. Factoran*, 223 S.C.R.A. 792 (Phil. S. Ct. 1993).

and inform government's obligation to its citizens and cannot be abrogated.

While the public trust doctrine provides the background and context for the entire Constitution, it can also be found in specific constitutional provisions and areas of constitutional law. One of these provisions is the Preamble to the United States Constitution. The Preamble summarizes the background agreements on which the substantive (and procedural) content of the Constitution is based.³¹ It states:

We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.³²

Essentially, what this means is that the power the people convey to government is conveyed with a duty to protect the public trust resources. As Professor John Davidson writes: "A conscientiously stewarded, trust corpus of natural resources, including a functioning atmosphere and stable climate, is an indispensable prerequisite if the 'blessings of liberty' are to be maintained for Posterity."³³ Furthermore, the beneficiaries identified in the Preamble, "ourselves and our Posterity," are the present and future generations whose rights are protected by the public trust doctrine.³⁴ All subsequent constitutional provisions should be construed in this intergenerational light where possible.³⁵

31. "In expounding the Constitution . . . every word must have its due force; for it is evident from the whole instrument, that no word was unnecessarily used, or needlessly added." *Holmes v. Jennison*, 39 U.S. 538, 570 (1840).

32. U.S. CONST. pmbl.

33. John Edward Davidson, *Draft Atmospheric Trust Litigation Amicus Brief*, 18 (Nov. 30, 2013), available at <http://www.ssrn.com/abstract=2361780>.

34. *Id.* ("While the posterity clause does not itself confer substantive powers upon government, it does indicate who the beneficiaries of the powers and rights enumerated elsewhere in the Constitution should be—'ourselves and our Posterity.'").

35. *Id.*

In addition to the Preamble, the public trust obligation can be located in the reserved powers doctrine. The reserved powers doctrine is the constitutional doctrine that prevents legislatures from behaving like errant trustees. The reserved powers doctrine prevents legislative entrenchment by ensuring that one legislature cannot legitimately infringe upon the equal sovereignty of later legislatures.³⁶ Underlying the reserved powers doctrine is a concern for protecting the interests of future generations and the sovereignty of succeeding legislatures. The reserved powers doctrine is inherently forward thinking; one of its main purposes is to ensure that future legislatures, with concerns not yet contemplated and incapable of prediction, are able to use the same tools wielded by preceding legislatures. The Supreme Court has recognized the reserved powers doctrine as a constitutional constraint that limits a legislature's ability to bind or contract away any "essential attribute of its sovereignty."³⁷ A legislature may not bind through an unrepealable law, alienate through contract, or destroy through waste those things that are essential attributes of sovereignty.³⁸

At the most fundamental level, the reserved powers doctrine provides that "the legislature cannot bargain away the police power of a State."³⁹ Similarly, in the public trust context, "the state can no more abdicate its trust over property in which the whole people are interested . . . than it can abdicate its police powers in the administration of government and the preservation of peace."⁴⁰ Like the police power, government's trustee duties

36. *Id.* at 7–16.

37. *See* United States v. Windstar Corp., 518 U.S. 839, 888 (1996) (citation omitted); *see also* Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387, 459 (1892) (discussing the holding from *Newton v. Comm'rs*, 100 U.S. 548 (1879) and noting "there could be no contract and no irrepealable law upon governmental subjects . . . that every succeeding legislature possesses the same jurisdiction and power as its predecessor; that the latter have the same power of repeal and modification which the former had of enactment . . . and that a different result would be fraught with evil"); *Newton v. Comm'rs*, 100 U.S. 548, 559 (1879) (recognizing the reserved powers doctrine, the Court proclaimed that "[e]very succeeding legislature possesses the same jurisdiction and power with respect to them as its predecessors. The latter have the same power of repeal and modification which the former had of enactment, neither more nor less").

38. While the law is often concerned with precommitment devices, *see, e.g.*, John A. Robertson, *Precommitment Issues in Bioethics*, 81 TEX. L. REV. 1849 (2003), a constitution is perhaps the cardinal expression in law of a precommitment device.

39. *Stone v. Mississippi*, 101 U.S. 814, 817 (1879).

40. *See Ill. Cent. R.R. Co.*, 146 U.S. at 453.

under the public trust doctrine are an essential attribute of sovereignty protected by the reserved powers doctrine.⁴¹

As has been illustrated in numerous cases, the legislature cannot abdicate its trust responsibilities through transfer of trust assets to private organizations or administrative agencies.⁴² Binding abdications are not limited to actions that bear an affirmative character; a legislature may also bind a future legislature through its own inaction. If, through inaction, a set of factual circumstances develop which forever prohibits the exercise of an essential attribute of sovereignty, then the legislature has bound all future legislatures through *de facto* abdication.⁴³ Whereas an affirmative abdication through contract violates the reserved powers doctrine by way of voluntary forfeiture, inaction can also violate the doctrine through the creation of a *de facto* abdication.

Essential attributes of sovereignty that are not grounded in a static foundation are particularly imperiled by legislative inaction. This is true in the public trust context, where government's role as a trustee depends on the condition of essential natural resources. Natural resources, like the atmosphere, are complicated and delicate. Without proper care, these resources can deteriorate to a point where restoration is no longer possible. If the substance of the public trust is irreversibly destroyed or deteriorated, then government's essential attribute as a trustee over that substance has been eviscerated.⁴⁴ A future

41. See Karl S. Coplan, *Public Trust Limits on Greenhouse Gas Trading Schemes: A Sustainable Middle Ground?*, 35 COLUM. J. ENV'T L. 287, 311 (2010) ("Public Trust Principles have been described as an essential attribute of sovereignty across cultures and across millennia.").

42. See Sax, *supra* note 7, at 509 (discussing *Gould v. Greylock Reservation Comm'n*, 215 N.E.2d 114 (1966), where plaintiffs brought a suit as public trust beneficiaries and ultimately prevented the legislature from granting public lands for private development); see also *Arnold v. Mundy*, 6 N.J.L. 1, 78 (1821) ("The sovereign power itself, therefore, cannot, consistent 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. It would be a grievance which never could be long borne by a free people.").

43. While not a law, nor a contract, legislative entrenchment has manifested itself as a result of particular factual circumstances. The factual development which has resulted from the inaction has created a legislative bar to the exercise of an essential attribute of sovereignty.

44. See MICHAEL C. BLUMM & MARY CHRISTINA WOOD, *THE PUBLIC TRUST DOCTRINE IN ENVIRONMENTAL AND NATURAL RESOURCES LAW* 72 (2013) (asserting that alienating or

legislature with different prerogatives, and an eye towards trust management, may find that there are no laws that it can enact to accomplish those ends under the apparent factual circumstances. In violation of the reserved powers doctrine, that future legislature would be bound by de facto abdication of a previous legislature to forfeit its fundamental obligation as a public trustee.

Were government to attempt such an abdication through an affirmative contract or alienation of property, courts could enjoin government from doing so. In other words, courts can require legislatures to not act where it would have otherwise acted; yet, when the same result occurs through inaction, courts have been reluctant to place an affirmative duty on the legislature.⁴⁵ The distinction seems to be a formalist one—a principle untethered from its rationale.

In addition to finding the public trust obligation in the Preamble and reserved powers doctrine, the framers drafted specific constitutional provisions with the concern for future generations in mind. The framers displayed their disdain for entrenchment by prohibiting titles of nobility.⁴⁶ Hereditary and perpetual privileges would limit the ability of later generations to govern. The vesting clause demonstrates a similar concern. Legislative power vests equally to all legislative bodies and those they represent, including future legislatures yet to be elected.⁴⁷ The Equal Protection Clause is designed to ensure that all persons are treated equally before the law.⁴⁸ Temporal inequality requires a judicial mechanism to ensure the protection of future

destroying essential resources would amount to relinquishing sovereign powers in violation of the Constitution's reserved powers doctrine).

45. *But see* *Geer v. Connecticut*, 161 U.S. 519, 534 (1896) (“[I]t is the duty of the legislature to enact such laws as will best preserve the subject of the trust, and secure its beneficial use in the future to the people of the state.”); *In re Water Use Permit Applications*, 9 P.3d 409, 453 (Haw. 2000) (“Under the public trust, the state has both the authority and duty to preserve the rights of present and future generations in the waters of the state.”); *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 927 (Pa. 2013) (“[I]t is the province of the Judiciary to determine whether the Constitution or laws of the Commonwealth require or prohibit the performance of certain acts.”) (citation omitted).

46. *See* U.S. CONST. art. I, § 9 (“No Title of Nobility shall be granted by the United States.”); *see also* Davidson, *supra* note 33, at 18–19.

47. *See* U.S. CONST. art. I, § 1 (“All legislative Powers herein granted shall be vested in a Congress of the United States.”) (emphasis added); *see also* Brief of Law Professors as Amicus Curiae, *supra* note 20, at 13–15.

48. *See* U.S. CONST. amend. XIV, §1.

generations.⁴⁹ The Due Process Clause of the Fifth Amendment incorporates unenumerated rights against the federal government. Whether a particular unenumerated right or limitation qualifies depends on “whether the right . . . is fundamental to our scheme of ordered liberty . . . or . . . whether this right is ‘deeply rooted in this nation’s history and tradition.’”⁵⁰ The public trust doctrine, with its deep history in constitutional and pre-constitutional law surely qualifies under this test.⁵¹ It is difficult to see how the very resources which sustain life, such as the atmosphere, are not essential to the ordered liberty of society. Without such resources, there can be nothing else, no enumerated or unenumerated rights, and no legislature or political structure.

In sum, because the public trust doctrine is the chalkboard on which the Constitution is written, it is more appropriate to consider the Constitution as rooted in the public trust doctrine rather than think of the public trust doctrine as rooted in the Constitution. It is because the Constitution is rooted in the public trust doctrine that we see the aforementioned constitutional provisions reflecting public trust principles.

C. Federalism

At the state level the public trust doctrine and its scope are relatively clear. States can shape the public trust doctrine through legislative enactments or through provisions in their constitutions. In some states, courts have also played a role in enlarging and preserving the public trust doctrine. States are free to interpret the public trust doctrine in very broad terms, like Hawaii,⁵² or in very narrow terms, like Idaho.⁵³ However, no state, despite some attempts, has been able to eliminate the public trust doctrine

49. Brief of Law Professors as Amicus Curiae, *supra* note 20, at 15–17.

50. See *MacDonald v. Chicago*, 130 S. Ct. 3020, 3036 (2010) (citation omitted).

51. See MARY CHRISTINA WOOD, *NATURE’S TRUST: ENVIRONMENTAL LAW FOR A NEW ECOLOGICAL AGE* 129 (2014) (citing Gerald Torres for the proposition that the public trust is the slate upon which “all constitutions are written” forming the “sovereign architecture”); see also Brief of Law Professors as Amicus Curiae, *supra* note 20, at 17–18.

52. See generally HAW. CONST. art. XI, § 1 (“All public natural resources are held in trust by the State for the benefit of the people.”).

53. See generally IDAHO CODE ANN. § 58-1203 (1996) (“The public trust doctrine as it is applied in the state of Idaho is solely a limitation on the power of the state to alienate or encumber the title to the beds of navigable waters as defined in this chapter.”).

entirely.⁵⁴ This indicates that there is some external restraint, some source of higher authority that hedges in the state's legislative power.

Based on language in the Supreme Court case *PPL Montana, LLC v. Montana*,⁵⁵ and given the extensive shaping of the public trust doctrine by state courts, it is not unreasonable to think that the public trust doctrine is simply a creature of state law. However, the basis for that thinking is not due to any inherent limitation of the doctrine, but rather the restraint applied by conflicting doctrines. Where the Supreme Court has restricted the public trust doctrine to the states, it has always been in the context of water law disputes; submerged lands have always held a special place within the realm of state control under the equal-footing doctrine.⁵⁶ Thus, trust obligations arising out of the alienation of submerged lands, or administrative actions regarding those lands, are usually a question of state law.⁵⁷ However, absent a limiting doctrine pertaining to a specific type of trust resource, and given the inability of the state to ignore the doctrine entirely, there is no reason why public trust obligations do not extend to the federal government. The state public trust doctrine, as recognized through state statutes and constitutions, is simply a different trust in a different context, and its particularities and irregularities

54. For example, Arizona courts have invalidated three attempts by the legislature to eliminate the public trust doctrine. *San Carlos Apache Tribe v. Superior Court ex rel. Cnty. of Maricopa*, 972 P.2d 179 (Ariz. 1999); *Defenders of Wildlife v. Hull*, 18 P.3d 722 (Ariz. Ct. App. 2001); *Ariz. Ctr. for Law in the Pub. Interest v. Hassell*, 837 P.2d 158 (Ariz. Ct. App. 1991).

55. *PPL Mont., LLC v. Montana*, 132 S. Ct. 1215, 1235 (2012) (The Court said that when dealing with ownership of submerged lands at statehood, "the public trust doctrine remains a matter of state law.").

56. The Supreme Court has recognized that under the equal-footing doctrine, with respect to title to the beds of navigable waters, "States retain residual power to determine the scope of the public trust over *waters* within their borders." *Id.* at 1235 (emphasis added). "All these developments in American law are a natural outgrowth of the perceived public character of *submerged lands*." *Idaho v. Coeur d'Alene Tribe of Idaho*, 521 U.S. 261 (1997). This result necessarily follows because "although [the equal-footing doctrine] operates to vest the state with sovereignty over certain watercourse land upon admission to the Union, thereafter, 'the land is subject to the laws of the State.'" *See Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co.*, 429 U.S. 363, 376 (1977). *PPL Mont.* and its sister decisions are decided in the context of the equal-footing doctrine concerning the ownership of submerged lands at statehood. Any understanding of the public trust doctrine as a creature of state law is really a statement about its status in the context of water law, not a statement about the doctrine generally.

57. *See, e.g., Coeur d'Alene Tribe*, 521 U.S. at 286–87 (affirming that a public trust question is a state law question when it involves state property).

cannot be applied to the greater public trust. In fact, state governments, when legislating with respect to the public trust doctrine only do so in relation to their vested rights in certain resources. For example, Idaho interprets the limits of the public trust doctrine in connection with their interest in state submerged lands and water rights.⁵⁸ There is no good reason that the natural resources the federal government manages on behalf of the people is free from a public trust duty. It cannot be due to the non-plenary nature of the federal government because, as to resources it controls, the duty has always been plenary even if the character of the government has both limited and plenary content.

Even if the main articulation of the public trust obligation is through the states, those main lines of analysis do not preclude a federal public trust duty incumbent on the federal government. While there is limited case law that applies the public trust doctrine to the federal government, this is because most public trust cases concern resources managed by individual states, such as a riverbed, and not resources managed by the federal government. For certain resources that bear a national character, the Supreme Court has found that the public trust doctrine applies to them.⁵⁹ These national resources often have interstate significance implicating federal trust obligations. Moreover, some courts have explicitly stated that the public trust doctrine applies to the federal government.⁶⁰ For example, in a case regarding migratory birds, a federal court stated: “Under the public trust doctrine, the State of Virginia *and the United States* have the right and duty to protect and preserve the public’s interest in natural wildlife resources.”⁶¹ Public trust principles can also be found in federal

58. See generally IDAHO CODE ANN. § 58-1203 (1996).

59. See *Light v. United States*, 220 U.S. 523, 537 (1911) (“All the public lands of the nation are held in trust for the people of the whole country.”); see also *Camfield v. United States*, 167 U.S. 518, 524 (1897) (“[I]t would be recreant to its duties as trustee for the people of the United States to permit any individual or private corporation to monopolize them for private gain.”); *United States v. Trinidad Coal & Coking Co.*, 137 U.S. 160, 170 (1890) (finding that public lands are “held in trust for all the people”).

60. See *United States v. 1.58 Acres of Land*, 523 F. Supp. 120, 124 (D. Mass. 1981) (“[A]dministration of the public trust is subject to the paramount rights of the federal government to administer its trust with respect to matters within the federal power. . . . [T]he trust impressed upon this property is governmental and administered jointly by the state and federal governments by virtue of their sovereignty . . .”).

61. *In re Steuart Transp. Co.*, 495 F. Supp. 38, 40 (E.D. Va. 1980) (emphasis added).

statutes regarding oceans, fisheries, and migratory birds, among others.⁶² Like oceans, the atmosphere is a resource of interstate significance, and thus implicates federal trust obligations; there is no rationale to constrain it to the states, as with inland waters.

III. OVERCOMING OBJECTIONS TO IMPOSING A TRUST DUTY ON THE ATMOSPHERE

When Professor Joseph Sax published his seminal public trust article in 1970, it brought renewed attention to the public trust doctrine as a tool to be used in the judicial context. In the subsequent decades, various objections have arisen in public trust cases before courts. Here we explain why two objections, the political question doctrine and statutory displacement, do not preclude public trust cases seeking action on climate change.

A. *The Political Question Doctrine*

Courts have been reluctant to provide affirmative relief from policies that result in the mismanagement of trust assets, fearing that doing so would encroach on a “political question” properly left for the legislature.⁶³ However, the political question doctrine should be read narrowly.⁶⁴ The political question

62. These federal resources often bear a federal character, and can be adequately addressed only through action by the federal government. *See* *Missouri v. Holland*, 252 U.S. 416, 435 (1920) (“But for the treaty and the statute, there soon might be no birds for any powers to deal with . . . It is not sufficient to rely upon the States.”); *see also* National Environmental Policy Act of 1969, § 101(b)(1), 42 U.S.C. § 4331(b)(1) (1970) (“[I]t is the continuing responsibility of the Federal Government to use all practicable means . . . [to] fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.”).

63. As Professor Sax notes, “courts fear that if they embark upon a consideration of the ‘merits’ of environmental disputes, they will be taking upon themselves a primary role in public policy-making which they feel—with justification—should reside in the legislative branch of government.” However, Sax responds to this concern by explaining that “the role of courts is not to make public policy, but to help assure that public policy is made by the appropriate entity, rationally and in accord with the aspirations of the democratic process In sum, the court serves as a catalyst, not a usurper, of the legislative process.” JOSEPH L. SAX, *DEFENDING THE ENVIRONMENT: A HANDBOOK FOR CITIZEN ACTION* 149, 151, 157 (1970).

64. *See* *Baker v. Carr*, 369 U.S. 186, 217 (1962) (“Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for non judicial discretion; or the impossibility of a court’s undertaking independent resolution without expressing lack of

doctrine is a threshold question of justiciability—whether the court is the proper forum to decide an issue or whether it should be left to the legislature to decide.

The business of the courts is limited to questions presented in an adversarial context and in a “form historically viewed as capable of resolution through the judicial process.”⁶⁵ Challenges brought under the public trust doctrine against trust managers fall squarely within the role of the judiciary. The context is clearly adversarial when a trustee is sued by trust beneficiaries for the mismanagement of trust assets. As has always been the case, the judiciary is responsible for enforcement of the obligations encompassed within trusts. Whether a particular legislative action or inaction regarding the disposition or alienation of trust resources divests future generations and legislatures of rights is a legal question to be resolved by courts where disputes arise.⁶⁶ This is precisely what the Pennsylvania Supreme Court held in *Robinson Township* when it determined that the political question doctrine did not prevent the Court from reviewing the Commonwealth’s management of public natural resources.⁶⁷

Importantly, judicial inaction effectively forecloses the political question for future legislatures by reducing the available policy options.⁶⁸ Mismanagement of trust assets divests future legislatures of important rights in two ways: first, it has the potential to deny future legislatures the ability to deal with the

the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.”).

65. *Flast v. Cohen*, 392 U.S. 83, 95 (1968).

66. *See generally* *Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387 (1892).

67. *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 928 (Pa. 2013) (“There is no doubt that the General Assembly has made a policy decision respecting encouragement and accommodation of rapid exploitation of the Marcellus Shale Formation, and such a political determination is squarely within its bailiwick. But, the instant litigation does not challenge that power; it challenges whether, in the exercise of the power, the legislation produced by the policy runs afoul of constitutional command. Responsive litigation rhetoric raising the specter of judicial interference with legislative policy does not remove a legitimate legal claim from the Court’s consideration; the political question doctrine is a shield and not a sword to deflect judicial review.”).

68. This reduction in legislative options contravenes the reserved powers doctrine. *See Newton v. Comm’rs*, 100 U.S. 548, 559 (1879) (“It is vital to the public welfare that each [legislature] should be able at all times to do whatever the varying circumstances and present exigencies touching the subject involved may require.”). The courts must step in to prevent this violation.

question at all; and second, it limits the ways in which future legislatures can choose to answer that question. If the trust assets are completely and irreversibly depleted or destroyed, then the future legislature is denied entirely its right to ask and answer the questions related to trust management.⁶⁹ Moreover, if the substance of the trust is irreparably degraded, certain legislative policies are rendered obsolete by their basic inapplicability to the altered state of the trust. Thus, appropriate judicial action preserves the constitutional role of the legislative branch by ensuring that a question not properly foreclosed is preserved for future legislatures.

Whether government has a fundamental constitutional obligation to oversee the atmosphere as a sovereign trust resource does not implicate the political question doctrine.⁷⁰ Such a determination is nothing more than “the vindication of a constitutional right.”⁷¹ A judicial determination of the existence of the trust obligation and whether rights protected by the public trust doctrine have been violated is merely the courts holding the legislature and executive branches to their respective constitutional duties.⁷²

Even if one were to believe that interested parties, with their various perspectives on the integrity of the atmosphere, should proceed through the regular political process, that process would necessarily be imperfect. The regular process of policy creation only functions if all parties have an opportunity to be heard. This is especially true where the question involves assets held in trust for the entire public. Interested parties normally gain access to the legislative process through their ability to vote and form organizations that lobby for their interests. However, future generations, by their very nature, cannot avail themselves of these traditional policy tools. This is precisely why these public resources are bundled into a trust rather than held in fee simple by government and treated like any other property government might own or control. Government is the trustee of public

69. See BLUMM & WOOD, *supra* note 44.

70. See *San Carlos Apache Tribe v. Superior Court ex rel. Cnty of Maricopa*, 972 P.2d 179, 199 (Ariz. 1999) (“It is for the courts to decide whether the public trust doctrine is applicable to the facts. The Legislature cannot by legislation destroy the constitutional limits on its authority.”).

71. *Robinson Twp.*, 83 A.3d at 930.

72. See *id.*

resource assets for the benefit of future generations so that they may enjoy the trust resources. That does not mean the resources cannot be used, but there is a heavy burden on that use. It has to be justified not only by current needs, but by future needs as well.⁷³ In other words, where courts examine doctrines that exist to serve later generations, the political question doctrine simply does not apply in the same way it would in other contexts.⁷⁴

The public trust obligation cannot be considered simply a political question because, as the chalkboard on which the constitution is written, its existence predates the kinds of politics permitted by the structures of governance. The particular methods by which the legislature fulfills its public trust duties may be a political question, but the determination of whether or not those methods sufficiently fulfill a government's fiduciary obligation to the beneficiaries of the trust assets is not a political question. If the legislature fails to protect trust resources, then it has failed to uphold the fundamental duty that is the public trust, but it has not supplanted the relevance of the public trust doctrine.

B. Displacement

A second obstacle that has arisen in public trust cases seeking action on climate change is the displacement doctrine. However, unlike other common law rights, the public trust doctrine is not subject to statutory displacement.⁷⁵ The public trust doctrine is not supplanted by the mere existence of legislation which addresses public trust assets. No deference is owed to administrative or legislative bodies who interpret the public trust; "it must . . . be emphasized that mere compliance by these bodies with their legislative authority is not sufficient to determine if their actions comport with the requirements of the public trust doctrine."⁷⁶ Even at the state level, the fact that there is a federal

73. See Torres, *supra* note 18, at 230 (explaining that the management of the resources held in trust by the government is governed historically by principals of trust law).

74. For example, contexts such as Congress's ability to regulate internal affairs or challenges to the impeachment process.

75. *But see* Alec L. v. Jackson, 863 F. Supp. 2d 11, 15–16 (D.C. Cir. 2012) (holding that the public trust doctrine can be displaced by the Clean Air Act).

76. *Kootenai Env'tl. Alliance, Inc. v. Panhandle Yacht Club, Inc.*, 671 P.2d 1085, 1095 (Idaho 1983).

statute is not dispositive, because those statutes merely serve as a baseline.⁷⁷ Such a result is sensible, because otherwise it would be impossible to even assess whether or not the statutes are functioning to supplement the public trust doctrine in a practicable way. Legally, courts have to determine whether the public trust doctrine is capable of being displaced by a statute at all. The statute cannot procedurally displace the public trust doctrine such that it throws out a common law cause of action in favor of actions as provided for in the statute. If it did, then it would entirely destroy the ability for a court to examine whether or not a statute fulfills the trustee's duty. The statute itself will not answer whether or not the statute is sufficient; that issue can only be resolved by looking at the statute independently and the actions taken under the statutory authority.

The public trust doctrine is not subject to displacement for two primary reasons. First, statutes can only displace common law; thus, because of the constitutional nature of the public trust doctrine, a statute cannot displace it. As we have already made clear, there is abundant support for the proposition that the public trust is constitutional in nature; therefore, the displacement analysis should end there. However, for those that view the public trust doctrine as a common law doctrine, we also explain why public trust cases are not subject to displacement under a traditional displacement analysis. Because the focus of this article is climate change, our displacement analysis specifically examines why the Clean Air Act⁷⁸ does not displace public trust claims seeking action on climate change.

i. A Brief Primer on Displacement

Displacement occurs when Congress enacts a statute, or an administrative agency publishes regulations with rulemaking power delegated from Congress, that overrides existing federal common law.⁷⁹ Displacement is premised on separation of

77. See *Bonser-Lain v. Tex. Comm'n on Envtl. Quality*, No. D-1-GN-11-002194, 2012 WL 2946041 (Tex. 201st Dist. Aug. 2, 2012).

78. Clean Air Act, 42 U.S.C. §§ 7401-7671q (1990).

79. John Wood, *Easier Said than Done: Displacing Public Trust Nuisance When States Sue for Climate Change Damages*, 41 ENVTL. L. REP. 10316, 10321 (2011).

powers⁸⁰ concerns because it governs the relationship between the three branches of the federal government.⁸¹ According to the Supreme Court, “[o]ur commitment to the separation of powers is too fundamental to continue to rely on federal common law by judicially decreeing what accords with common sense and the public weal when Congress has addressed the problem.”⁸²

When determining that common law has been displaced by an act of Congress, courts consider whether the displacing law “speaks directly to the question at issue.”⁸³ Put differently, common law is displaced by a statute when “the field has been occupied”⁸⁴ or “the problem has been thoroughly addressed by statute or regulation such that there is no interstice to be filled.”⁸⁵ It is worth noting that the “existence of laws generally applicable to the question is not sufficient,” and the displacement test remains an “issue-specific inquiry.”⁸⁶ Certain factors, such as the lack of a federal remedy⁸⁷ or when using common law to supplement statutory or regulatory schemes will not render the schemes “meaningless,”⁸⁸ will favor a determination that displacement had not occurred.

80. While displacement and preemption are sometimes confused, preemption deals with the interaction between federal and state law and thus is premised on federalism principles. *See id.* (discussing the differences between preemption and displacement).

81. *Id.*

82. *City of Milwaukee v. Illinois & Michigan (Milwaukee II)*, 451 U.S. 304, 315 (1981) (quoting *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 194 (1978)); *see also id.* at 313–14 (“We have always recognized that federal common law is subject to the paramount authority of Congress Federal common law is a necessary expedient, and when Congress addresses a question previously governed by a decision rested on federal common law the need for such an unusual exercise of lawmaking by federal courts disappears.”) (citation omitted).

83. *Am. Elec. Power Co. v. Connecticut*, 131 S. Ct. 2527, 2537 (2011) (alterations in the original) (quotation omitted).

84. *Milwaukee II*, 451 U.S. at 324.

85. *Wood*, *supra* note 79, at 10319 (quotation omitted).

86. *Native Village of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 856 (9th Cir. 2012).

87. *See Illinois v. City of Milwaukee, Wis. (Milwaukee I)*, 406 U.S. 91, 103–04 (1972); *see also Am. Elec.*, 131 S. Ct. at 2537–38 (The Court explained that the federal common law right to seek emission reductions from the defendants’ power plants is displaced because the “same relief” is available under the Clean Air Act, suggesting that if the plaintiffs sought a relief that was different from the relief available under the Clean Air Act, their common law claim would not be displaced.); *Wood*, *supra* note 79, at 10318.

88. *Milwaukee II*, 451 U.S. at 315; *see also Wood*, *supra* note 79, at 10319.

ii. The Public Trust Doctrine Cannot be Displaced by Statute Because it is Constitutional in Nature

As illustrated in the preceding sections of this article, the public trust doctrine is chalkboard on which the Constitution is written and holds constitutional force.⁸⁹ Due to its constitutional nature, the public trust is not susceptible to statutory displacement because constitutional law overrides statutory law. In the words of Professor Albert Lin, “the public trust doctrine functions in a quasi-constitutional way: it establishes overarching fiduciary principles regarding trust resources that *may not be overridden by legislative or executive action.*”⁹⁰ As a fundamental attribute of sovereignty, the public trust doctrine has constitutional force in both the United States Constitution and every state constitution.⁹¹

Because of its constitutional nature, the Supreme Court has never said that a state could do away with the public trust within its borders, and courts have invalidated attempts to do so.⁹² For example, in *San Carlos Apache Tribe v. Superior Court*,⁹³ the Arizona Supreme Court considered the validity of a state water rights statute that read: “In adjudicating the attributes of water rights pursuant to this article, the court shall not make a determination as to whether public trust values are associated with any or all of the river system or source.”⁹⁴ In holding that this statutory provision was invalid, the Court explained that the public trust doctrine is a “*constitutional limitation*” on the legislative power to give away public trust resources—a limitation that the legislature cannot destroy by statute or order the courts to make

89. See *supra* Parts I, II.A.

90. Albert C. Lin, *Public Trust and Public Nuisance: Common Law Peas in A Pod?*, 45 U.C. DAVIS L. REV. 1075, 1095 (2012) (emphasis added); see WOOD, *supra* note 51, at 129 (stating that the public trust “cannot be repudiated, abridged, or surrendered by any legislature”).

91. See, e.g., PA. CONST. art. I, § 27; see also Kundis, *supra* note 24 and accompanying text.

92. Alexandra B. Klass, *Modern Public Trust Principles: Recognizing Rights and Integrating Standards*, 82 NOTRE DAME L. REV. 699, 705 (2006).

93. *San Carlos Apache Tribe v. Superior Court ex rel. Cnty. of Maricopa*, 972 P.2d 179 (Ariz. 1999).

94. *Id.* at 199 (quoting ARIZ. REV. STAT. ANN. § 45-263(B) (1995) (West)).

inapplicable.⁹⁵ In fact, rather than being subject to statutory displacement, the public trust can be used to invalidate legislative acts that contravene or abrogate the public's interest in trust assets. The most famous example of this is *Illinois Central Railroad v. Illinois*,⁹⁶ where the Supreme Court invalidated an act of the Illinois legislature granting the Illinois Central Railroad Company over 1,000 acres along Lake Michigan's shorefront because the State held the land in public trust and the legislature could not abrogate that trust.⁹⁷

When considering the constitutional nature of the public trust doctrine, a displacement argument is difficult to make because it would require a logical restructuring of our understanding of the supremacy doctrine: ordinary legislation cannot displace the public trust doctrine any more than it can displace the Constitution. Thus, instead of being subject to displacement by statute, the converse is actually true: because of the priority of constitutional norms the public trust doctrine can be used to curb invalid legislative actions, as seen in *San Carlos Apache Tribe* and *Illinois Central*.

Again, thinking about the public trust doctrine as the chalkboard on which our laws are written is useful here: we can fill this chalkboard with laws until you cannot see any board behind it, but you know it is still there. The Clean Air Act is one of the laws written on the chalkboard. However, the public trust doctrine continues to act as a floor, setting a minimum level of protection for the air and our atmosphere; the Clean Air Act does not displace the public trust doctrine but supplements it.

iii. Even as a Common Law Doctrine the
Public Trust Doctrine is Not Displaced by
Statute

While we believe the displacement analysis should end here, we offer an alternative analysis for those hesitant to accept the constitutional nature of the public trust doctrine. As explained below, even when treated as a common law doctrine, public trust

95. *Id.* (emphasis added).

96. 111 Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892).

97. *Id.* at 463–64; 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, 930 (2004).

cases seeking action on climate change (i.e., greenhouse gas emission reductions) are not displaced by the Clean Air Act for three primary reasons: (1) the Clean Air Act does not “speak directly to the question at issue” in public trust cases; (2) there is a lack of federal remedy; and (3) supplementing the Clean Air Act with the public trust doctrine does not render the statute “meaningless.”⁹⁸

First, the Clean Air Act does not “speak directly to the question at issue” in public trust cases because the core inquiry is fundamentally different. Public trust cases ask courts to consider whether the legislative and executive branches are fulfilling their fiduciary duty to adequately protect trust resources, in this case the atmosphere, for the beneficiaries of the trust assets. This core inquiry requires courts to determine whether the atmosphere has been substantially impaired and whether the government is acting as a proper trustee of the asset.⁹⁹ There are no statutes, including the Clean Air Act, that “speak directly” to this core inquiry of whether the government is complying with its fiduciary public trust duty to protect the atmosphere.

In contrast, the Clean Air Act provides one means that government, as trustee, can use to protect trust assets. The Clean Air Act gives the Environmental Protection Agency (“EPA”) the power to decide what activities and which emissions should be regulated, to what extent those activities should be regulated, and how to implement specific regulations to reduce emissions.¹⁰⁰ The Clean Air Act does not ask the more fundamental question of whether the protections in the statute adequately protect the atmosphere from substantial impairment.

98. While this section focuses specifically on why public trust cases seeking action on climate change are not displaced by the Clean Air Act, a similar analysis in the context of other natural resources would show that public trust cases seeking their protection are also not displaced.

99. See Mary Christina Wood et al., *Securing Planetary Life Sources for Future Generations: Legal Actions Deriving from the Ancient Sovereign Trust Obligation*, in THREATENED ISLAND NATIONS: LEGAL IMPLICATIONS OF RISING SEAS AND A CHANGING CLIMATE 531, 575 (Michael B. Gerrard & Gregory E. Wannier eds., 2013) [hereinafter THREATENED ISLAND NATIONS] (“A trust claim lodged against a sovereign does not invade the actual sphere of regulation—deciding what activities to curtail and to what extent—but rather demands an accounting of the bottom-line effectiveness of the regulation (combined with other tools) to achieve asset protection.”).

100. See *Summary of the Clean Air Act*, U.S. ENVTL. PROT. AGENCY, <http://www2.epa.gov/laws-regulations/summary-clean-air-act> (last visited Feb. 20, 2014).

Environmental laws have been described as operating in their own silos: “[E]ach [law] has different definitions and lists of regulated pollutants, and focus in different media—water, air, soil, food, pesticides, etc. None consider ecosystems as a whole.”¹⁰¹ While this silo approach is generally used to describe the relationship between environmental statutes, it is also the approach taken within the Clean Air Act to regulate air pollution. The Clean Air Act regulates different emission sources independently (motor vehicles, power plants, aircrafts, etc.) without regard for the overall health of the atmosphere.¹⁰² Although it makes sense to regulate cars differently from power plants, in order to adequately protect a national—indeed international—resource like the atmosphere, regulations must be crafted within the framework of an overall target or goal of protecting the atmosphere. This target must be informed by the best available science, not politics, if the *res* is to be truly protected. The best available science tells us that in order to protect the planet from the worst effects of climate change, the target should be reducing atmospheric levels of carbon dioxide to 350 parts per million (“ppm”) by the end of the century.¹⁰³ However, the silo approach taken under the Clean Air Act fails to consider the end goal and consequently is proving to be a woefully inadequate mechanism to protect the planet from climate change.¹⁰⁴

Public trust cases seeking action on climate change ask governments to implement a comprehensive climate recovery plan to restore the concentration of carbon dioxide in the atmosphere to 350 ppm by the end of the century.¹⁰⁵ Additionally, public trust cases may question whether the Clean Air Act adequately empowers the government to fulfill its fiduciary obligation to protect the atmosphere. A Clean Air Act lawsuit, in contrast, may allege that the statute is not being properly implemented or that

101. David Hodas, *Vantage Point*, 26 NAT. RES. & ENV. 1, 1 (2012).

102. *See generally* 42 U.S.C. §§ 7401–7671 (1990).

103. For an example of scientific analysis of climate change targets, see Hansen et al., *supra* note 1.

104. Since the promulgation of the Clean Air Act of 1970, the concentration of carbon dioxide in the atmosphere has increased from 326 ppm to 396 ppm, well past the safe level of 350 ppm. *See* NAT’L OCEANIC & ATMOSPHERIC ADMIN., ftp://aftp.cmdl.noaa.gov/products/trends/co2/co2_annmean_mlo.txt (last updated Feb. 5, 2014).

105. *See, e.g.*, Alec L. v. McCarthy, 863 F. Supp. 2d 11, 14 (D.C. Cir. 2012).

there is a failure of enforcement. However, this is a different question than whether the Clean Air Act is even capable of adequately protecting the atmosphere.¹⁰⁶ Because the Clean Air Act does not ask whether the statute is sufficient for the government trustees to meet their trust obligation to protect the atmosphere from substantial impairment, displacement cannot prevent courts from engaging in this core inquiry. Law professor Mary Wood aptly summarizes this situation: “[N]o matter how extensive a regulatory scheme under the [Clean Air Act] may be, the scheme itself does not ‘speak directly to the question’ of whether the regulation alone is adequate to meet the fundamental fiduciary duties of asset protection.”¹⁰⁷ In short, because the core inquiry of public trust cases is different than the core inquiry of Clean Air Act cases, the statute does not “speak directly” to the issue in public trust cases seeking action on climate change and displacement does not occur.

Second, public trust cases seeking action on climate change are not displaced due to the lack of a federal remedy. The remedy plaintiffs may seek in public trust cases is different than any remedy available under the Clean Air Act—that is, the remedy sought is not “within the precise scope of remedies prescribed by Congress.”¹⁰⁸ In public trust cases, a plaintiff could ask for an accounting of the overall effectiveness of the government’s actions in protecting an essential natural resource on behalf of future generations. The relief sought in *Alec L. v. McCarthy* is illustrative of this point.¹⁰⁹ There, the plaintiffs asked, *inter alia*, that the court require the federal agency defendants to prepare a climate recovery plan that is consistent with the best available science, develop an annual carbon budget, and reduce carbon dioxide emissions in the United States by at least six percent per year.¹¹⁰

106. According to Professor Mary Wood it is “nearly inconceivable” that the regulations under the Clean Air Act alone can protect the atmosphere since adequately protecting the atmosphere would also require land use reform, reforestation, infrastructure changes, soil improvement, tax incentives, and many other things. THREATENED ISLAND NATIONS, *supra* note 99, 575–76.

107. *Id.* at 576.

108. *Illinois v. City of Milwaukee*, Wis. (*Milwaukee I*), 406 U.S. 91, 103 (1972).

109. *Alec L.*, 863 F. Supp. 2d 11 (while the case parties were *Alec L., et al., v. Jackson et al.* in the District Court, the case is now *Alec L., v. McCarthy*, No. 11-cv-02235 (D.C. Cir. 2014) on appeal in the United States Court of Appeals for the District of Columbia).

110. Amended Complaint at 39–40, *Alec L. v. Jackson*, 863 F. Supp.2d 11 (D.C. Cir. 2012) (No. C11-02203).

This type of macro-level remedy is not available under the Clean Air Act.¹¹¹

On the other hand, the types of remedies available under the Clean Air Act tend to be sector-specific. A notable example of this is *Massachusetts v. EPA*,¹¹² where plaintiffs sued to compel the EPA to implement new regulations under the Clean Air Act for motor vehicle emissions.¹¹³ Other examples include *Center for Biological Diversity v. EPA*,¹¹⁴ where plaintiffs sought to compel the EPA to regulate emissions from marine vessels, aircrafts, and other non-road vehicles, and *Resisting Environmental Destruction on Indigenous Lands v. EPA*,¹¹⁵ where plaintiffs argued that air quality permits for offshore arctic drilling should be withdrawn.¹¹⁶ The remedies sought in each of these cases were sector-specific, micro-level remedies, which are all that are available under the Clean Air Act's regulatory scheme. The macro-level, atmospheric scale, resource management remedies sought in public trust cases are unavailable under the Clean Air Act, and are not subject to displacement.

It is worth noting here that the relief sought in public trust cases seeking action on climate change can be easily distinguished from the relief sought in *Connecticut v. AEP*,¹¹⁷ even though public trust cases, like *AEP*, are ultimately seeking reductions in greenhouse gas emissions. As previously noted, the commitment that courts have to the separation of powers is a strong principle behind the displacement doctrine. In a case like *Connecticut v. AEP*, it is understandable why a court would be reluctant to rule that five specific power plants should reduce their greenhouse gas emissions when the Clean Air Act regulates greenhouse gas

111. For information about other public trust cases seeking action on climate change see *US Legal Actions*, OUR CHILDREN'S TRUST, <http://www.ourchildrenstrust.org/legal/US-Action> (last visited Apr. 6, 2014).

112. *Massachusetts v. EPA*, 549 U.S. 497 (2007).

113. *Id.* at 505.

114. *Ctr. For Biological Diversity v. EPA*, 794 F. Supp. 2d 151, 153 (D.C. Cir. 2011).

115. *Resisting Env'tl. Destruction on Indigenous Lands v. EPA*, 716 F.3d 1155, 1158–59 (9th Cir. 2013).

116. For information on other Clean Air Act cases see *Clean Air Act Cases*, CTR. FOR CLIMATE & ENERGY SOLUTIONS, <http://www.c2es.org/federal/courts/clean-ar-act-cases> (last visited Feb. 28, 2014).

117. *Am. Elec. Power Co. v. Connecticut*, 131 S. Ct. 2527 (2011).

emissions from the very same power plants.¹¹⁸ Such decisions are usually left to the executive branch, through administrative agencies.

However, public trust cases do not seek emission reductions from specific parties; and therefore, courts are not put in a position of having to determine which power plants should be regulated. In public trust cases, a court need only decide that a certain amount of reductions are necessary to protect trust assets, while the decision of who, how, and what to regulate remains in the hands of the executive branch (pursuant to power given to it by Congress).¹¹⁹ Because the ultimate relief in public trust cases comes from either the executive or legislative branch, courts do not need to worry about infringing on the constitutionally delegated powers of another branch of government, and thus any separation of powers concerns are alleviated.¹²⁰

Finally, public trust cases seeking action on climate change are not displaced because supplementing the statutory and regulatory scheme of the Clean Air Act with the public trust doctrine would not render those schemes “meaningless.”¹²¹ As previously illustrated, the Clean Air Act is sufficiently different from the public trust doctrine that allowing the two to coexist would not render the statute or regulations enacted by the EPA meaningless. Indeed, because the proper understanding of the Clean Air Act is as a means (or at least a partial means) for fulfilling the government’s fiduciary public trust obligation to protect the atmosphere, the Clean Air Act will be a component of

118. See THREATENED ISLAND NATIONS, *supra* note 99, 573–80 (discussing the differences between public trust claims seeking action on climate change and public nuisance claims like *AEP*).

119. As Professor Wood explains, plaintiffs in public trust cases “do not ask courts to prescribe how the reduction [in emissions] will be accomplished. The court’s role, rather, is to set a numerical fiduciary pathway of reduction and then defer to the sovereign defendant as to how the reduction will be accomplished—subject to the continuing jurisdiction and supervision of the court to ensure that it actually happens.” *Id.* at 556.

120. Just as *AEP* can be distinguished from public trust cases seeking action on climate change, *Native Village of Kivalina v. ExxonMobil Corp.*, 696 F. 3d 849 (9th Cir. 2012), is also distinguishable. *Kivalina* was a public nuisance case seeking damages against specific polluters. Like *AEP*, this type of case is more likely to raise separation of powers concerns because the parties are seeking a remedy against specific polluters. In contrast, public trust cases do not seek to hold specific polluters responsible, but rather seek a remedy from the federal government.

121. See *supra* note 87 and accompanying text.

any plan to protect the atmosphere.¹²² For example, if a court determined that government was failing to meet its fiduciary duty to protect the atmosphere from substantial impairment, greenhouse gas emission reductions could be implemented by the EPA and other government agencies through the Clean Air Act (and other statutes or subsequently enacted legislation).¹²³ Accordingly, the Clear Air Act actually complements the public trust doctrine, and public trust cases seeking action on climate change would not render the Clean Air Act meaningless but would actually emphasize the importance of its role in effectuating emission reductions. For these three reasons, public trust cases seeking action on climate change are not subject to statutory displacement.

IV. THE ROLE OF THE JUDICIARY IN PUBLIC TRUST CASES

Notwithstanding the passage of numerous environmental statutes since the 1960s, which have given administrative agencies significantly more responsibility for the management and protection of natural resources and the environment, courts still have an important and unique role to play in the protection of public trust assets.¹²⁴ When government actions (and inactions) allow private interests to substantially impair trust resources, beneficiaries of the public trust can rely on the courts to hold the government accountable and ensure that it acts in a manner consistent with the public interest.¹²⁵ Thus, the public trust doctrine, enforced by the courts, is an important check on how

122. See *Nat'l Audubon Soc'y v. Superior Ct. of Alpine Cnty*, 658 P.2d 709, 726–29 (Cal. 1983) (*en banc*) (discussing the interaction between statutory law and trust law).

123. The EPA remains the “primary regulator of greenhouse gas emissions” in this scenario. See *Am. Elec. Power Co. v. Connecticut*, 131 S. Ct. 2527, 2539 (2011).

124. Wood, *supra* note 18, at 75 (“The judicial branch remains the ultimate guardian of the trust. While modern natural resources law primarily focuses on statutes and regulations, it must be remembered that American courts have defined basic sovereign obligations towards natural resources through common law for two centuries. Decisions pertaining to the public trust obligation, the Indian trust obligation, treaty rights, water rights, wildlife law, the federal navigation servitude, private property takings, and public nuisance make up such a rich and extensive body of natural resources law developed within the judicial branch.”).

125. David Takacs, *The Public Trust Doctrine, Environmental Human Rights, and the Future of Private Property*, 16 N.Y.U. ENVTL. L.J. 711, 761 (“While other common law doctrines may be undone by explicit legislation, the Public Trust Doctrine seems sacrosanct, holding a power beyond modification or revocation by legislative action.”).

the political branches manage trust assets: it ensures that government trustees protect trust assets for present and future generations and do not abdicate their fiduciary duty to prevent substantial impairment to the *res*.¹²⁶ As one court stated: “Just as private trustees are accountable to their beneficiaries for dispositions of the *res*, so the legislative and executive branches are judicially accountable for their dispositions of the public trust The check and balance of judicial review provides a level of protection against improvident dissipation of an irreplaceable *res*.”¹²⁷ Professor Joseph Sax explained that public trust law “is a technique by which courts may mend perceived imperfections in the legislative and administrative process.”¹²⁸ Importantly, courts are not called on to manage the *res*. That responsibility is left to administrative agencies, with guidance from Congress. This is an important distinction and ensures that the separation of powers between the three branches of government is respected.

*A. The Judiciary’s Role in Enforcing the Public Trust
Doctrine is Critical for Preserving Democracy*

The public trust doctrine is critical for *preserving* democracy, despite some criticism that the public trust doctrine is undemocratic.¹²⁹ While courts are frequently called on to protect the rights of minorities, in public trust cases they are actually being called on to protect the rights of the majority. Due to a failure in the political process, a minority now exercises undue influence over the executive and legislative branches to the detriment of the majority. This situation is patently undemocratic. As Professor Joseph Sax explained in his seminal 1970 article on the public trust doctrine, “self-interested and powerful minorities often have an undue influence on the public resource decisions of legislative and administrative bodies and cause those bodies to ignore more broadly based public interests.”¹³⁰ He went on to say

126. Brief of Law Professors as Amicus Curiae, *supra* note 20, at 26.

127. Ariz. Ctr. for Law in the Pub. Interest v. Hassell, 837 P.2d 158, 169 (Ariz. Ct. App. 1991) (citation omitted); *see also In re Water Use Permit Applications*, 9 P.3d 409, 455 (Haw. 2000) (citing *id.*).

128. Sax, *supra* note 7, at 509.

129. *See, e.g.,* James Huffman, *A Fish Out of Water: The Public Trust Doctrine in a Constitutional Democracy*, 19 ENVTL. L. 527, 565 (1989) (discussing how the public trust doctrine allows nondemocratic courts to overrule decisions of democratic legislatures).

130. Sax, *supra* note 7, at 560.

that the function of the courts is “to promote equality of political power for a disorganized and diffuse majority” and that “the fundamental function of courts in the public trust area is one of *democratization*.”¹³¹ In situations like the one we currently face, where minority special interest groups (e.g., the fossil fuel industry) have a disproportionate influence on decisions related to the use and management of natural resources and the protection of the environment, the courts have an important role to play in protecting the majority and restoring balance to our democracy.¹³²

Even in public trust cases that call on the judiciary to invalidate acts of the executive or legislative branches or to compel action, the courts are preserving, not undermining, democracy. As David Takacs explains, “while democracy may seem subverted when a court overrules the acts of elected officials, such judicial acts in fact serve democracy by preserving rights invested in all the people.”¹³³ Others describe the public trust doctrine as a “corrective response to political failures in the democratic process.”¹³⁴ The *Robinson Township* case from Pennsylvania is the most recent example of a court invalidating a legislative act in order to protect the rights of a majority, all Pennsylvanians, against a minority special interest group, the oil and gas industry.¹³⁵ There the Court stated:

The public natural resources implicated by the “optimal” accommodation of industry here are

131. *Id.* at 560–61 (emphasis added).

132. Gerald Torres, *Book Review*, 42 U. PITT. L. REV. 823 (1981) (reviewing JOSEPH L. SAX, *MOUNTAINS WITHOUT HANDRAILS: REFLECTIONS ON THE NATIONAL PARKS* (1980)) (Professor Sax elaborates on the relationship between the environment and democracy in his review of park policy.). For an example of the fossil fuel industry’s influence on the management of natural resources, one can look to Act 13, H.B. 1950, P.L. 87, No. 13 (Pa. 2012), the statute at issue in *Robinson Township*. In discussing Act 13, the Court stated: “Act 13’s primary stated purpose is not to effectuate the constitutional obligation to protect and preserve Pennsylvania’s natural environment. Rather, the purpose of the statute is to provide a maximally favorable environment for industry operators to exploit Pennsylvania’s oil and natural gas resources.” *Robinson Twp. v. Commonwealth*, 83 A.3d 901, 975 (Pa. 2013).

133. Takacs, *supra* note 125, at 715.

134. Lin, *supra* note 90, at 1084; *see also* WOOD, *supra* note 51, at 139 (“A primary judicial function, however, has always been to ensure that legislative enactments comport with constitutional expectations.”).

135. *Robinson Twp.*, 83 A.3d at 975.

resources essential to life, health, and liberty: surface and ground water, ambient air, and aspects of the natural environment in which the public has an interest. As the citizens illustrate, development of the natural gas industry in the Commonwealth unquestionably has and will have a lasting, and undeniably detrimental, impact on the quality of these core aspects of Pennsylvania's environment, which are part of the public trust.¹³⁶

While it is understandable that courts are reluctant to intervene in decisions made by administrative agencies or Congress, such interventions are critical for preserving democracy when actions by the political branches benefit a small minority to the detriment of the majority. Furthermore, it is important to remember that the role of the courts in public trust cases is still constrained.¹³⁷ For example, in public trust cases seeking action on climate change, a court could require an agency to prepare a climate recovery plan, but the specific details of the plan would ultimately come from the agency, not the court. The judiciary's role is to ensure that the political branches protect trust assets from substantial impairment, not to dictate specific environmental policies. Substantive decisions about how best to protect and manage trust assets would remain in the hands of the democratically elected branches of government.

B. The Judiciary's Role is Especially Important in Light of the Failure of the Executive and Legislative Branches to Take Action on Climate Change

The failure of the executive¹³⁸ and legislative branches¹³⁹ to take any meaningful action to reduce greenhouse gas emissions

136. *Id.*

137. Lin, *supra* note 90, at 1086.

138. See, e.g., Ryan Lizza, *The President and the Pipeline*, THE NEW YORKER (Sept. 16, 2013), http://www.newyorker.com/reporting/2013/09/16/130916fa_fact_lizza?currentPage=all (describing President Obama as an oil and gas friendly president and noting that the reason Lisa Jackson left the Environmental Protection Agency was because of Obama's inaction on climate change).

139. See, e.g., Ryan Lizza, *As the World Burns*, THE NEW YORKER (Oct. 11, 2010), http://www.newyorker.com/reporting/2010/10/11/101011fa_fact_lizza (describing the failure of Congress to pass climate change legislation in 2010); see also Brief for Dr. James Hansen

and address climate change makes it even more important for the judiciary to fill this void. The executive and legislative branches absolutely *must* act to address climate change in order to fulfill their fiduciary duty to the trust beneficiaries. However, until the political branches act, our tripartite system of constitutional government gives citizens one last opportunity to vindicate their core rights—the judiciary.¹⁴⁰ As the nation’s leading public trust scholars explained in an *amicus curiae* brief, “[c]ourts are being called upon . . . to ensure that the political branches fulfill their obligation to avoid destruction or irreparable harm to an asset that must sustain future generations.”¹⁴¹

Unfortunately, the role of the judiciary as a “powerful institutional arbiter of environmental disputes”¹⁴² has been substantially reduced in the past several decades.¹⁴³ The administrative deference doctrine, an increasingly restrictive standing doctrine, the political question doctrine, and procedural hurdles all combine to make it difficult for plaintiffs to have their cases decided on the merits.¹⁴⁴ It is important to recall, however, that, “[i]n general, the Judiciary has a responsibility to decide cases properly before it, even those it would gladly avoid.”¹⁴⁵

We are faced with a situation where inaction on climate change is already causing, and will continue to cause, severe destruction, hardship, and calamity for both present and future generations.¹⁴⁶ In light of such daunting consequences of inaction, we need judges who will protect the rights of all citizens against a self-interested minority and a government that is failing to meet its obligation to protect its citizens.¹⁴⁷ We need judges to stop

as *Amicus Curiae* at 5, 14, *Alec L. v. Jackson* (N.D. Cal. 2011) (No. 3:11-cv-02203), available at <http://www.ourchildrenstrust.org/sites/default/files/Hansen%20Amicua%20.pdf> [hereinafter *Brief for Amicus Curiae Dr. James Hansen*] (describing the fossil fuel industry’s “stranglehold on Congress” and how the executive branch bows to industry pressure).

140. WOOD, *supra* note 51, at 108.

141. Brief of Law Professors as *Amicus Curiae*, *supra* note 20, at 26.

142. WOOD, *supra* note 51, at 108.

143. See, e.g., Wood, *supra* note 18, at 59 (“[T]he judiciary has lost its potency as a third branch of government operating in the environmental realm.”).

144. See, e.g., WOOD, *supra* note 51, at 108–12.

145. *Zivototsky ex rel. v. Clinton*, 132 S. Ct. 1421, 1427 (2012).

146. See, e.g., Hansen et al., *supra* note 1.

147. As Professor Sax observed:

A judge can ignore the realities and presume that everyone who ought to be heard will be heard in time, on the assumption that in the

avoiding the tough questions, like climate change, and to tackle the issues head on.¹⁴⁸ Of course, we also need equally courageous and determined lawyers and citizens to bring these cases before judges.

Reflecting on the landmark 1892 *Illinois Central Railroad*¹⁴⁹ case, Professors Joseph Kearney and Thomas Merrill noted the courage that it took the Court to reach its decision.¹⁵⁰ Now, over a century later, we need judges to display a similar courage when they are presented with public trust cases seeking action on climate change.¹⁵¹ Indeed, they may be our last hope. In an *amicus curiae* brief in support of a public trust case seeking action on climate change, renowned climate scientist Dr. James Hansen wrote: “In the absence of political leadership,” the courts “may be the best, the last, and, at this late state, the only real chance to preserve and restore the atmosphere and climate system.”¹⁵² At a time when political action on climate change seems unlikely, courts, as arbiters of justice and defenders of the Constitution, have an opportunity to use the law to address the present climate crisis at hand.

V. CONCLUSION

Professor Robert Cover said: “To live in a legal world requires that one know not only the precepts, but also their connections to possible and plausible states of affairs. It requires that one integrate not only the ‘is’ and the ‘ought,’ but the ‘is,’ the

legislative process, as in a bakery shop, one takes his number and waits his turn. Or, adjusting flexibility to the situation before him, he can focus attention on the desirability of trying to assure that an important matter *does* get heard in a timely fashion.

SAX, *supra* note 63, at 203 (emphasis in original).

148. School desegregation is arguably the best example of the courts addressing a very tough question that the political branches of government were avoiding.

149. *Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387 (1892).

150. Kearney & Merrill, *supra* note 97, at 930.

151. While the full impacts of the *Robinson Township* case from the Pennsylvania Supreme Court are yet unclear, this case, already being described as “a landmark ruling,” is a good example of the type of judicial courage that we are referring to. *See e.g.* Michael A. Riccardi, *Big Shale Ruling Tops Year for Top Court*, PITTSBURGH POST-GAZETTE (Jan. 6, 2014), <http://www.post-gazette.com/business/legal/2014/01/06/Big-shale-ruling-tops-year-for-Pennsylvania-Supreme-Court/stories/201401060008>.

152. Brief for Amicus Curiae Dr. James Hansen, *supra* note 139, at 14.

‘ought,’ and the ‘what might be.’”¹⁵³ In the context of climate change, the “is” means knowing a world where climate change is already occurring and is threatening human civilization as we know it. The “ought” is the idea that we ought to be reducing emissions, transitioning away from fossil fuels to renewable energy sources, and restructuring our economy to align with the reality that we live on a planet with finite natural resources. The “what might be” is where lawyers, judges, and other citizens have the opportunity to use legal tools to help facilitate a transition to a more stable and safe future. The public trust doctrine provides a powerful and compelling legal framework to support legal actions and other initiatives that seek to compel government action on climate change and help us move from the “is” to the “what might be” of Professor Cover’s formulation.

Pursuant to the public trust doctrine, our government has a fundamental obligation to protect the resources that are central to our society—land, water, wildlife, and air. This obligation predates the Constitution and actually underlies the very purpose of the Constitution. When government fails to protect the essential natural resources central to our society—resources that belong to all of us, including future generations—the fundamental ability of civilization to reproduce itself is threatened.

Today, we face a situation where government is failing to reduce greenhouse gas emissions to the level required to restore and protect our climate system, and it is no exaggeration to say that this inaction threatens civilization as we know it. The science is unequivocal: the failure to take immediate and significant action to address climate change threatens the natural resources we rely on to survive and to reproduce our society. Our water supplies, coral reefs and fish stocks, forests, and agricultural land are all threatened by climate change.¹⁵⁴

The public trust doctrine offers a legal framework that citizens can use to compel government to fulfill its fiduciary duties to protect natural resources. The modern public trust doctrine is firmly supported by the principles of constitutional law and is an essential attribute of sovereignty. When government unlawfully abdicates its fiduciary obligation to protect trust resources through its actions or inaction, citizens should be able to rely on the

153. Robert M. Cover, *Nomos and Narrative*, 97 HARV. L. REV. 4, 10 (1983).

154. See *supra* notes 3, 4.

judiciary to protect their rights and the rights of future generations. When citizens bring public trust cases to protect trust resources, courts should resolve the cases on the merits and not avoid the tough public trust and constitutional questions. As demonstrated, doctrinal obstacles such as political question and statutory displacement do not apply to public trust cases as they would apply to ordinary common law cases.

With a pressing issue like climate change, where delay is not an option, the courts may be our last hope to try and compel action before it is too late. The public trust doctrine, with its macro-level focus on the overall health of the atmosphere, may be the best legal mechanism to protect our climate system and the ability of our society to reproduce and evolve to face the challenges that lie ahead.