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It's Time to Let Go: Why the Atmospheric Trust Won't Help the World Breathe Easier

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INTRODUCTION

The year 2012 proved to be one for the history books: not as the year of the Mayan apocalypse, but as the hottest year on record in the United States.[1] Globally, it was the tenth warmest year since record-keeping began in 1880.[2] North Carolina experienced its sixth-highest

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1. 2012 was the warmest year in the contiguous United States since record-keeping began in 1895. NAT'L CLIMATIC DATA CTR., NAT'L OCEANIC & ATMOSPHERIC ADMIN., STATE OF THE CLIMATE: NATIONAL OVERVIEW – ANNUAL 2012 (Jan. 8, 2013), http://www.ncdc.noaa.gov/sotc/national/2012/13. The average temperature was 3.2°F higher than the twentieth century average, a full degree above the previous record set in 1998. *Id.*; *see also* Justin Gillis, *Not Even Close: 2012 Was Hottest Ever in U.S.*, N.Y. TIMES (Jan. 8, 2013), http://www.nytimes.com/2013/01/09/science/earth/2012-was-hottest-year-ever-in-us.html?_r=2& ("The temperature differences between years are usually measured in fractions of a degree, but last year's 55.3 degree average demolished the previous record, set in 1998, by a full degree Fahrenheit.").

2. NAT'L CLIMATIC DATA CTR., NAT'L OCEANIC & ATMOSPHERIC ADMIN., STATE OF THE CLIMATE: GLOBAL ANALYSIS – ANNUAL 2012 (Dec. 2013), http://www.ncdc.noaa.gov/sotc/global/2012/13 ("The annually-averaged temperature across global land and

average annual temperature ever, with top-five records set in cities across the state.[3] Overall, three hundred fifty-five "all-time" record high temperatures were either tied or broken across the country.[4] But it was not just the heat that made headlines. More Arctic sea ice melted in 2012 than ever before,[5] and the unprecedented thawing of ninety-seven percent of the Greenland ice sheet shocked even NASA scientists.[6] American corn and soybean crops suffered from massive droughts across more than sixty percent of the country,[7] and "Superstorm" Sandy devastated the mid-Atlantic and northeastern United States, causing nearly fourteen feet of storm surge in New York City Harbor.[8] Climate disasters have continued to strike in 2013:

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ocean surfaces was 0.57°C (1.03°F) above the 20th century average . . . . Including 2012, all 12 years to date in the 21st century (2001–2012) rank among the 14 warmest in the 133-year period of record.").

3. 2012 was the sixth warmest recorded year in North Carolina history, with an annual average temperature 1.7°F higher than the twentieth century average. NAT'L CLIMATIC DATA CTR., NAT'L OCEANIC & ATMOSPHERIC ADMIN., STATE OF THE CLIMATE: NATIONAL OVERVIEW – ANNUAL 2012, WARMEST SEASONS AND CALENDAR YEARS ON RECORD, http://www.ncdc.noaa.gov/sotc/national/2012/13/supplemental/page-3 (last visited Nov. 15, 2013). Raleigh experienced its fourth warmest year on record; Charlotte its fifth; Asheville its first; Greensboro its third; and Cape Hatteras its fourth. NAT'L CLIMATIC DATA CTR., NAT'L OCEANIC & ATMOSPHERIC ADMIN., STATE OF THE CLIMATE: NATIONAL OVERVIEW – ANNUAL 2012, YEAR-TO-DATE TEMPERATURE ANOMALIES, http://www.ncdc.noaa.gov/sotc/national/2012/13/supplemental (last visited Nov. 15, 2013).

4. NAT'L CLIMATIC DATA CTR., NAT'L OCEANIC & ATMOSPHERIC ADMIN., STATE OF THE CLIMATE: NATIONAL OVERVIEW – ANNUAL 2012, KNOWN ALL-TIME TEMPERATURE RECORDS TIED OR BROKEN, http://www.ncdc.noaa.gov/sotc/national /2012/13/supplemental/page-6 (last visited Nov. 15, 2013).

5. NAT'L CLIMATIC DATA CTR., NAT'L OCEANIC & ATMOSPHERIC ADMIN., STATE OF THE CLIMATE: GLOBAL SNOW & ICE – ANNUAL 2012 (Jan. 15, 2013), http://www.ncdc.noaa.gov/sotc/global-snow/2012/13; *see* Justin Grieser, *Top 5 International Weather Events of 2012*, WASH. POST (Dec. 31, 2012), http://www.washingtonpost.com /blogs/capital-weather-gang/post/top-5-international-weather-events-of-2012/2012/12/31/971dc172-5362-11e2-8b9e-dd8773594efc_blog.html.

6. *See* Press Release, Maria-José Viñas, Earth Sci. News Team, Nat'l Aeronautics & Space Admin., Satellites See Unprecedented Greenland Ice Sheet Surface Melt (July 24, 2012), http://www.nasa.gov/topics/earth/features/greenland-melt.html.

7. *See* NAT'L CLIMATIC DATA CTR., NAT'L OCEANIC & ATMOSPHERIC ADMIN., STATE OF THE CLIMATE: NATIONAL OVERVIEW – ANNUAL 2012, 2012 NATIONAL TOP 10 WEATHER/CLIMATE EVENTS, http://www.ncdc.noaa.gov/sotc/national/2012/13 /supplemental/page-10 (last visited Nov. 15, 2013) [hereinafter TOP 10 WEATHER/CLIMATE EVENTS]; Gillis, *supra* note 1.

8. *See* TOP 10 WEATHER/CLIMATE EVENTS, *supra* note 7; Gillis, *supra* note 1. While no individual climatic event can be tied directly to global warming, most scientists agree that these disasters are a mere sampling of what the future holds if global greenhouse gas emissions continue to go unchecked. *See, e.g.*, NAT'L CLIMATE ASSESSMENT & DEV. ADVISORY COMM., THIRD NATIONAL CLIMATE ASSESSMENT (NCA) REPORT 1091 (Jan. 14, 2013), *available at* http://ncadac.globalchange.gov/download/NCAJan11-2013-publicreviewdraft-fulldraft.pdf ("While there is always a chance that particular extreme

In November, "Super Typhoon" Haiyan struck the Philippines with sustained winds of 195 miles per hour, making it "the strongest tropical cyclone on record to make landfall in world history."[9] Naming storms with superlatives like this may soon become more the norm than the exception, with hundred-year climate events like floods and wildfires now occurring over three times their predicted frequency.[10] The time for debating whether the climate is changing is long over.[11] The difficult question that society now must confront is

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events may have occurred naturally, from a statistical perspective, the likelihood of some of these events has clearly increased due to climate change."); *id.* at 1103 ("Climate change is already leading to more intense rainfall events and more extreme weather patterns. The changes in worldwide weather patterns will lead to more droughts in some areas and more floods in others, as well as more frequent heat waves over many land areas. The risk associated with wildfires in the western U.S. is increasing, and coastal inundation is becoming a common occurrence in low-lying areas.").

9. Jeff Masters, *Super Typhoon Haiyan Finishes Pounding the Philippines, Headed for Vietnam*, DR. JEFF MASTERS' WUNDERBLOG, WEATHER UNDERGROUND (Nov. 8, 2013, 3:50 PM), http://www.wunderground.com/blog/JeffMasters/comment.html?entrynum=2574. The storm had wind gusts up to 235 miles per hour and remained a Category 5 storm for two days. *See id.*

10. *See* Paul B. Farrell, *Warning: 100-year Climate Disasters Every 100 Days*, MARKETWATCH, WALL ST. J. (Sept. 25, 2013, 12:02 AM), http://www.marketwatch.com/story/warning-100-year-climate-disasters-every-100-days-2013-09-25; *see also* Bill Chappell, *Arizona Wildfire Kills 19 Firefighters, Deadliest in Decades*, NAT'L PUB. RADIO (July 1, 2013, 7:22 AM), http://www.npr.org/blogs/thetwo-way/2013/07/01/197556858/arizona-wildfire-kills-19-firefighters-deadliest-in-decades (describing "the deadliest U.S. wildfire in at least 30 years"); Adam Gabbatt, *Colorado Flood Deaths Reach Eight But Number of Missing Continues to Fall*, THE GUARDIAN (Sept. 17, 2013, 1:19 PM), http://www.theguardian.com/world/2013/sep/17/colorado-flood-deaths-missing (describing massive flooding in Colorado that "destroyed or damaged around 19,000 homes" and displace "nearly 12,000 people").

11. *See* NAT'L CLIMATE ASSESSMENT & DEV. ADVISORY COMM., *supra* note 8, at 1080 ("Given the fact that science is built on the premise of criticism rather than consensus, the widespread agreement in the scientific community regarding the reality of climate change and the leading role of human activities in driving this change is nothing short of remarkable. More than 97% of scientists in this field agree that the world is unequivocally warming and that human activity is the primary cause of the warming experienced over the past 50 years."); *see also Humans are Primary Cause of Global Ocean Warming Over Past 50 Years, Research Shows*, SCIENCE DAILY (June 11, 2012), http://www.sciencedaily.com/releases/2012/06/120611153234.htm ("The bottom line is that this study substantially strengthens the conclusion that most of the observed global ocean warming over the past 50 years is attributable to human activities."). Even Dr. Richard Muller, a former climate skeptic funded by the conservative Koch Foundation, publicly announced this year that his own studies confirm the theory of manmade climate change. *See* Richard A. Muller, Op-Ed., *The Conversion of a Climate-Change Skeptic*, N.Y. TIMES (July 28, 2012), http://www.nytimes.com/2012/07/30/opinion/the-conversion-of-a-climate-change-skeptic.html?pagewanted=all ("Last year, following an intensive research effort involving a dozen scientists, I concluded that global warming was real and that the prior estimates of the rate of warming were correct. I'm now going a step further: Humans are almost entirely the cause.").

what to do about it.[12] It is no secret that the United States has failed to address this challenge seriously,[13] but the reasons for this failure are numerous and complex. Among them are (1) the lack of concrete, identifiable harm to mobilize public opinion and legislative action;[14] (2) the influence of special interest lobbies promoting big business and fossil fuel-based energy production;[15] and (3) the extensive discretion that governmental agencies have in allocating natural resources.[16] These are not simple problems to overcome, but as

12. *See, e.g.*, Eric Pooley, *Why the Climate Bill Failed*, TIME (June 9, 2008), http://www.time.com/time/nation/article/0,8599,1812836,00.html ("Just about every Senator who spoke last week, Democrat and Republican alike, wanted to be on record saying that climate change is real and must be dealt with. But far too few were willing to debate the solutions to the crisis . . . .").

13. For example, the Lieberman-Warner Climate Security Act, S. 2191, 110th Cong. (2008), and the American Clean Energy and Security Act, H.R. 2454, 111th Cong. (2009), both failed to pass in the Senate. *See S. 3036 (110th): Lieberman-Warner Climate Security Act of 2008*, GOVTRACK.US, http://www.govtrack.us/congress/bills/110/s3036 (last visited Nov. 15, 2013); *H.R. 2454 (111th): American Clean Energy and Security Act of 2009*, GOVTRACK.US, http://www.govtrack.us/congress/bills/111/hr2454 (last updated Feb. 03, 2013). The United States never ratified the Kyoto Protocol, *see Status of Ratification of the Kyoto Protocol*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE, http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php (last visited Nov 15, 2013), and generally has played an obstructionist role in global efforts to curb greenhouse gas emissions. *See, e.g.*, Christopher Martin & Frederic Tomesco, *U.S. Delegates Walk Out of Montreal Climate Talks*, BLOOMBERG (Dec. 9, 2005), http://www.bloomberg.com /apps/news?pid=newsarchive&sid=avcRE.FLAYpQ&refer=us; *see also* Mary Christina Wood, *Atmospheric Trust Litigation Around the World*, *in* FIDUCIARY DUTY AND THE ATMOSPHERIC TRUST 99, 103 (Ken Coghill, Charles Sampford, & Tim Smith eds., 2012) [hereinafter Wood I] (describing the United States as "a recalcitrant global polluter, having offered only a meagre reduction proposal [of two percent below 1990 levels] at the Copenhagen Conference," where the international community attempted to negotiate a new climate treaty).

14. *See* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 474 (1970) ("Our legal system tends to provide specific and limited responses to particular problems .... [E]nvironmental problems will remain untouched until some dramatic event mobilizes public opinion and leads to legislative and administrative action.").

15. *See id.* at 560 ("[S]elf-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 broadly based public interests."); Wood I, *supra* note 13, at 104 ("Congress remains beholden to the fossil fuel industry, which spent a whopping $514 million over eighteen months lobbying against a climate bill, until prospects for legislation came to a 'crashing demise' in summer, 2010.").

16. *See* 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, 55 (2009) [hereinafter Wood II] ("The modern environmental administrative state is geared almost entirely to the legalization of natural resource damage. In nearly every statutory scheme, the implementing agency has the authority—or discretion—to permit the very pollution or land destruction that the statutes were designed to prevent."); Mary Christina Wood, *Advancing the Sovereign Trust of Government to Safeguard the Environment for Present*

climate variability increases—and as the effects become more and more severe—society must take action to mitigate the impacts of increased greenhouse gases in the atmosphere and to adapt to the changes that cannot be avoided.

One compelling proposal for overcoming these obstacles contemplates expanding upon existing common law—specifically the public trust doctrine—to recognize the atmosphere as an asset to be held in trust by the government for the benefit of current and future generations.[17] Such an expansion of this doctrine (the "Atmospheric Trust") would impose an affirmative duty on state governments to regulate carbon emissions within their jurisdictions.[18] By substituting language of legal obligation for the current rhetoric of agency discretion and political partisanship, implementation of this proposal would put the debate over whether to take action on climate change squarely behind us, and instead focus the national conversation on what to do about it.

This Comment suggests that the Atmospheric Trust proposal, though compelling, has flaws that may undercut its viability in addressing the climate crisis. First, the public trust doctrine itself is built on shaky historical precedent, and it has been applied inconsistently and with great variation among the states, making universal expansion of the doctrine challenging. Second, this type of expansion raises significant theoretical concerns, such as the risk of weakening the doctrine into a general police power or placing the fate of a resource as important as the atmosphere in the hands of the judiciary, which is generally unaccountable to the public. Third, and perhaps most important, the Atmospheric Trust proposal would face a variety of political obstacles that could inhibit its effectiveness even if adopted. As an example, this Comment will examine the feasibility

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and Future Generations (Part II): Instilling a Fiduciary Obligation in Governance, 39 ENVTL. L. 91, 105 (2009) [hereinafter Wood III] ("[M]uch of the environmental agencies' present workload consists of issuing permits for ecological damage."). The second and third of these obstacles to effective governmental action on climate change are inherently related, as broad agency discretion, enabled by modern judicial deference to agency decisions, necessarily "invites undue political influence" through lobbying of agency officials. Mary Christina Wood, Symposium, *Key Note Address: Government's Atmospheric Trust Responsibility*, 22 ENVTL. L. LITIG. 369, 374 (2007) [hereinafter Wood IV]; *see also* Mary Christina Wood, *Nature's Trust: Reclaiming an Environmental Discourse*, 25 VA. ENVTL. L.J. 243, 254 (2007) [hereinafter Wood V] (noting the conflict between administrative agencies' purpose to "use their discretion to serve the interests of the public" and the realty that administrative decision making can be used to "further political ends").

17. *See infra* Part II.A.

18. *See* Wood IV, *supra* note 16, at 373; Wood V, *supra* note 16, at 261–62.

of implementing the proposal in a state like North Carolina—a state whose public trust doctrine is already quite limited, whose courts are unlikely to adopt such an expansive interpretation of precedent, and whose legislature would likely step in to prevent such expansion even if adopted by the courts. Given the obstacles this theory would face in North Carolina and politically similar states, this Comment argues that successful expansion of the doctrine in even a handful of jurisdictions would create pockets of Atmospheric Trusts across the country, all of which would be interpreted and implemented differently.

Given these drawbacks to the theory and its practical application, this Comment posits that efforts to promote the Atmospheric Trust may be futile in certain jurisdictions and even could prove counterproductive to the ultimate goal of addressing climate change. Given the current state of the climate, time is of the essence. Time and effort should not be diverted away from developing a practical approach that may be better suited to the legal and political realities that exist in states like North Carolina.[19]

Analysis proceeds in three parts. Part I provides an overview of the traditional public trust doctrine, its historical roots, and its adoption in the United States. Part II examines the proposal to expand the doctrine to include protection of the atmosphere and this proposal's success in state and federal litigation to date. Part III compares the traditional public trust doctrine to the Atmospheric Trust theory and considers the legal, practical, and public policy implications of such an expansion. Finally, this Comment uses North Carolina as a case study to analyze the wisdom and practical feasibility of attempting to expand the doctrine in a state that has an elected judiciary and a state legislature with a demonstrated hostility to climate action.

I. THE PUBLIC TRUST DOCTRINE

The public trust doctrine is a curious creature of American common law that was derived from principles of ancient Roman and English law.[20] The doctrine applies traditional trust law concepts to the relationship between the government and its citizenry in order to

19. Other possible solutions—whether they involve lobbying Congress for comprehensive climate legislation, seeking broader international action, or finding a new legal theory under which the climate could be regulated by the states—are beyond the scope of this Comment.

20. *See infra* Part I.A.

ensure proper management of certain essential natural resources.[21] Under the contemporary formulation of the public trust doctrine, the State is a sovereign trustee, charged with management and protection of these resources, as trust assets, for the benefit of the public.[22] All citizens, constituting the trust beneficiaries, are entitled to access and use these resources for public purposes, traditionally defined as navigation, commerce, and fishing.[23] In order to maintain the proper level of public access and use, the government is generally restricted in its ability to sell or otherwise convey these resources to private parties.[24] Outside of these foundational principles, however, the public trust doctrine is largely a question of state law, and its application in any given jurisdiction varies in terms of the specific obligations imposed on government, the range of resources protected as trust assets, and the ability of the public to enforce the terms of the trust.[25]

A. Historical Origins of the Public Trust Doctrine

The public trust doctrine is often characterized as a contemporary form of an English common law doctrine, which in turn evolved from ancient Roman law.[26] The underlying principles of the doctrine are typically cited as having their roots in Roman civil law at the time of Emperor Justinian.[27] As expressed in Book II of

21. *See* Christopher Brown, *A Litigious Proposal: A Citizen's Duty to Challenge Climate Change, Lessons from Recent Federal Standing Analysis, and Possible State-Level Remedies Private Citizens Can Pursue*, 25 J. ENVTL. L. & LITIG. 385, 445 (2010).

22. *See id.*

23. *See* Robin Kundis Craig, *Adapting to Climate Change: The Potential Role of State Common-Law Public Trust Doctrines*, 34 VT. L. REV. 781, 784 (2010) [hereinafter Craig I].

24. *See id.*; *see also* Sax, *supra* note 14, at 477 ("Three types of restrictions on governmental authority are often thought to be imposed by the public trust: first, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses." (footnote omitted)).

25. *See infra* Part I.C.

26. *See, e.g.*, PPL Mont., L.L.C. v. Montana, 132 S. Ct. 1215, 1234 (2012); Craig I, *supra* note 23, at 798; Sax, *supra* note 14, at 475.

27. *See, e.g.*, Karl S. Coplan, *Public Trust Limits on Greenhouse Gas Trading Schemes: A Sustainable Middle Ground?*, 35 COLUM. J. ENVTL. L. 287, 305 (2010); Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 632 (1986); Gregory S. Munro, *The Public Trust Doctrine and the Montana Constitution as Legal Bases for Climate Change Litigation in Montana*, 73 MONT. L. REV. 123, 136 (2012); Wood II, *supra* note 16, at 69. Some scholars argue the doctrine's roots can be traced back an additional hundred years to Emperor Marcian. *See, e.g.*, James L. Huffman, *Speaking of Inconvenient Truths – A History of the Public Trust Doctrine*, 18 DUKE ENVTL. L. & POL'Y F. 1, 16

Justinian's Institutes,[28] certain natural resources were considered inherently common property, or *res communes*.[29] Access could not be denied to these resources of common ownership, and usufructuary rights[30] were vested in the public for uses such as fishing and navigation.[31]

These underlying Justinian principles of common property and public rights influenced the development of English common law concerning public access to navigable waterways.[32] The public trust doctrine was first introduced in the writings of Henry de Bracton, who drew from Justinian's Institutes to introduce the notion of the public trust to English law.[33] This developed into a common law doctrine that vested title to all lands beneath navigable waters in the king,[34] "subject to a common right of use for navigation and fishing."[35]

(2007) ("[T]he concept of 'things common to all' originated with the third century jurist Marcian . . . .").

28. Justinian's Institutes are a compilation of "classical institutional works," "classical commentaries," and "imperial legislation" from the time of Emperor Justinian, promulgated in 533 A.D. *See* J. INST. vii–ix (J.A.C. Thomas trans., 1975). The Institutes were "designed as an introductory, simple exposition of the general principles of (in the main) private law for students embarking upon the study of law." *Id.* at vii (footnote omitted).

29. *Id.* at 2.1.1 ("Now the things which are, by natural law, common to all are these: the air, running water, the sea and therefore the seashores."). "Res" is defined as "[t]he subject matter of a trust" which is "[a]n object, interest, or status, as opposed to a person." BLACK'S LAW DICTIONARY 1420 (9th ed. 2009). "Res communes" is defined as "[t]hings common to all; things that cannot be owned or appropriated, such as light, air, and the sea." *Id.* at 1421.

30. A usufructuary right is a "right for a certain period to use and enjoy the fruits of another's property without damaging or diminishing it, but allowing for any natural deterioration in the property over time." BLACK'S LAW DICTIONARY 1684 (9th ed. 2009).

31. *See* J. INST. 2.1.1–2.1.5; *see also* Huffman, *supra* note 27, at 9 ("Roman law, as communicated to us across the centuries by Justinian, recognized and protected public rights in especially important natural resources."); Lazarus, *supra* note 27, at 632 ("The public trust doctrine is based on an amorphous notion that has been with us since the days of Justinian—the notion that the public possesses inviolable rights in certain natural resources."). *But see* Sax, *supra* note 14, at 475 (quoting R. LEE, THE ELEMENTS OF ROMAN LAW 109 (4th ed. 1956)) ("One text suggests that [the seashore] was the property of the Roman people. More often it is regarded as owned by no one, the public having undefined rights of use and enjoyment.").

32. *See* Huffman, *supra* note 27, at 19, 25; Lazarus, *supra* note 27, at 635.

33. *See* Huffman, *supra* note 27, at 19; Lazarus, *supra* note 27, at 635.

34. The English common law test of navigability was based on the ebb and flow of ocean tides. *See, e.g.*, Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387, 435 (1892) ("In England the ebb and flow of the tide constitute the legal test of the navigability of waters. There no waters are navigable in fact, at least to any great extent, which are not subject to the tide."); Barney v. Keokuk, 94 U.S. 324, 336 (1877) ("[I]n England, no waters are deemed navigable except those in which the tide ebbs and flows.").

35. Huffman, *supra* note 27, at 77.

These public rights prohibited the king from alienating those submerged lands.[36]

The contemporary public trust doctrine, however, is a product of substantial expansion and varied application of these Roman and English roots.[37] First, it is not clear that the rights described in Justinian's Institutes were either absolute or enforceable.[38] While the Institutes characterize air and water resources as common property, they do not expressly establish the State as a trustee—responsible for the protection of that property or liable for interferences with the public's rights to its access and use—as that evolution is widely understood to have developed in the American courts.[39] Additionally, the Institutes may not in fact represent Roman law as it actually operated at the time of Justinian, but may rather serve to express "Justinian's own idealization of a legal regime."[40]

Furthermore, the extent to which English common law was actually concerned with public rights to resources is questionable. Submerged lands subject to the English public trust doctrine could still be acquired by prescription, and the king retained power to grant title or exclusive use rights "for the purpose of promoting navigation and commerce."[41] Indeed, such acquisitions and conveyances were so pervasive that some scholars argue the English common law did not, in effect, actually establish public fishing rights or constraints on

36. *See* Sax, *supra* note 14, at 476.

37. *See id.* at 556–57 ("It is clear the historical scope of public trust law is quite narrow .... Certainly the principle of the public trust is broader than its traditional application indicates."); *see also* Lazarus, *supra* note 27, at 657 ("[T]he viability of the ancient roots is largely irrelevant to the doctrine's current application, apart from presenting 'seeds of ideas.' "). *But see* Huffman, *supra* note 27, at 37–39 (describing how the first major American public trust doctrine case cited de Bracton, among others, as precedent).

38. *See, e.g.*, Patrick Deveney, *Title, Jus Publicum, and the Public Trust: An Historical Analysis*, 1 SEA GRANT L.J. 13, 29 (1976) ("In actuality, the sea and the seashore were 'common to all' only insofar as they were not yet appropriated to the use of anyone or allocated by the state." (emphasis in original omitted)); Huffman, *supra* note 27, at 15 ("Roman law did not really guarantee an inalienable public right to use and access the sea and seashore ....").

39. *See* Sax, *supra* note 14, at 475 ("[I]t has never been clear whether the public had an enforceable right to prevent infringement of those interests ... [, and] no evidence is available that public rights could be legally asserted against a recalcitrant government."). Indeed, Professor James Huffman argues that the Roman concept of common property and public rights is entirely distinct from what we now consider it to be. *See* Huffman, *supra* note 27, at 18.

40. Lazarus, *supra* note 27, at 633–34. "Justinian may not have been stating the law as it was in fact ...." Huffman, *supra* note 27, at 15. "[T]his Golden Age existed only in legend and myth." *Id.* at 18–19.

41. Huffman, *supra* note 27, at 77.

private ownership of submerged lands.[42] The so-called English roots of today's public trust doctrine were more about the king's ownership and control of lands than they were about common resources and public rights.[43]

Considered together, these historical doctrines are best characterized as the "seeds of ideas" for the formulation of certain elements of the modern American public trust doctrine.[44] In particular, the idea that certain natural resources are inherently important to all people is consistently recognized throughout this history, as is the notion that certain public uses of those resources deserve protection.[45]

B. Adoption of the Public Trust Doctrine in the United States

The public trust doctrine made its first major appearance in American jurisprudence in the early 1800s, in *Arnold v. Mundy*.[46] The case involved a disputed title to an oyster bed which the plaintiff had planted on a riverbed adjacent to his property.[47] Holding that the landowner never held legal title to the river or the land beneath it because such resources were "vested in *the people* of" the state,[48] Chief Justice Kirkpatrick of the New Jersey Supreme Court announced a legal principle which would serve as the framework for our contemporary formulation of the public trust doctrine.[49] His analysis represents the first American adoption of the doctrine's common law precedent, closely tracking the rationale and language of its Roman and English roots[50]:

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42. *See id.* at 26 ("[T]here is no public right to fish in navigable waters, though the public may be granted the liberty to do so."); *id.* at 35 ("[T]he Crown's claim of title to submerged lands had nothing to do with protecting the public's interest in navigating and fishing the overlying waters.").

43. *See, e.g.*, JOSH EAGLE, COASTAL LAW 194 (2011) ("Perhaps the most significant difference between the Roman and British law constructs of the public trust doctrine is that, under the British version, the King is presumed to own all property while, under the Roman version, certain property is deemed to be communally owned."); Lazarus, *supra* note 27, at 635 ("[A]lthough in some sense English common law recognized public rights in the shorezone area, they were, at bottom, rights controlled by the sovereign."); Sax, *supra* note 14, at 485 ("[O]nly the most manipulative of historical readers could extract much binding precedent from what happened a few centuries ago in England.").

44. *See* Sax, *supra* note 14, at 485.

45. *See id.* at 476–77.

46. 6 N.J.L. 1 (1821).

47. *Id.* at 65.

48. *Id.* at 78.

49. *See* Huffman, *supra* note 27, at 37.

50. Indeed, the opinion directly references the writings of Bracton and Justinian as support for this new rule of law. *See Arnold*, 6 N.J.L. at 72.

> [T]he nation does not possess all [property] in the same manner .... [Some] remain[s] common to all the citizens, who take of them and use them, each according to his necessities, and according to the laws which regulate their use, and are called common property.[51]

Chief Justice Kirkpatrick's opinion can also be viewed as the first American expansion of the common law doctrine, introducing the notion of an obligation for the government to hold these common resources in trust for the benefit of the public.[52]

The United States Supreme Court first considered the public trust doctrine in *Martin v. Waddell*,[53] yet another case involving title to a submerged oyster bed. The Court considered the doctrine again in its 1892 landmark decision on the public trust doctrine, *Illinois Central Railroad Co. v. Illinois*.[54] This case resolved a dispute over title to the bed of Lake Michigan, after the waters of the lake "reclaimed" much of the shoreline, which the state of Illinois had granted to a private railroad company.[55] The Court held that Illinois had no authority to convey these parcels of land to a private party because its own title to them was subject to the public trust doctrine, under which the state held such resources for the benefit of the public.[56]

The *Illinois Central* Court expanded upon the English common law governing title to submerged lands;[57] it extended the public trust doctrine to all navigable waters—including freshwater lakes such as Lake Michigan—rather than just those susceptible to the ebb and

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51. *Id.* at 71 (emphasis omitted).

52. *See id.* ("But inasmuch as the things which constitute this common property are things in which a sort of transient usufructuary possession, only, can be had ... the wisdom of that law has placed it in the hands of the sovereign power, to be held, protected, and regulated for the common use and benefit." (emphasis omitted)).

53. 41 U.S. (16 Pet.) 367 (1842).

54. 146 U.S. 387 (1892).

55. *See id.* at 433–34.

56. "The trust devolving upon the State for the public, and which can only be discharged by the management and control of property in which the public has an interest, cannot be relinquished by a transfer of the property ...." *Id.* at 453. The Court ultimately held, "[A]ny attempted cession of the ownership and control of the State in and over the submerged lands in Lake Michigan, by the act of April 16, 1869, was inoperative to affect, modify or in any respect to control the sovereignty and dominion of the State over the lands, or its ownership thereof." *Id.* at 460.

57. *See* Huffman, *supra* note 27, at 59 (describing the English common law on submerged lands and how *Illinois Central* differs). The *Illinois Central* Court's expansion upon the English doctrine was really a product of the doctrine's incremental expansion carried out by American courts in cases leading up to the *Illinois Central* case. *See* EAGLE, *supra* note 43, at 196.

flow of the ocean tides.[58] The opinion characterized the primary purpose of the doctrine as protecting resources in which the public has an inherent interest.[59] In particular, the Court emphasized the importance of public use of navigable waters for commerce, navigation, and fishing, and the corresponding need for the government to own and protect such resources against private encroachment.[60]

Illinois Central did not, however, establish a rule of law that prohibits states from conveying public trust lands absolutely. The Court expressly provided that the public trust doctrine's restriction on alienation of such land is governed instead by a rule of functionality[61]:

> The trust with which [these properties] are held, therefore, is governmental and cannot be alienated, *except* in those instances mentioned of parcels used in the improvement of the interest thus held, or *when parcels can be disposed of without detriment to the public interest in the lands and waters remaining.*[62]

On one hand, this "lodestar"[63] Supreme Court decision on the public trust doctrine serves as a recognition that certain resources may be too important to the public interest to be deeded over to private

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58. *See Illinois Central*, 146 U.S. at 435–36 ("At one time the existence of tide waters was deemed essential in determining the admiralty jurisdiction of courts in England. That doctrine is now repudiated in this country as wholly inapplicable to our condition . . . . The doctrine is founded upon the necessity of preserving to the public the use of navigable waters from private interruption and encroachment, a reason as applicable to navigable fresh waters as to waters moved by the tide.").

59. *See id.* at 455–56 ("The ownership of the navigable waters of the harbor and of the lands under them is a subject of public concern to the whole people of the State . . . . This follows necessarily from the public character of the property, being held by the whole people for purposes in which the whole people are interested.").

60. *See id.* at 452 ("[I]t is a title different in character from that which the State holds in lands intended for sale . . . . It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties."). *But see* Richard A. Epstein, *The Public Trust Doctrine*, 7 CATO J. 411, 424–25 (1987) (arguing that the *Illinois Central* decision was motivated more by judicial concern over the potential for legislative abuse of power and whether the state had received just compensation); Lazarus, *supra* note 27, at 656 ("The precise object of concern . . . in *Illinois Central* . . . was corrupt or shortsighted state legislatures.").

61. *See, e.g.*, Huffman, *supra* note 27, at 56–57 ("No less than five times in the opinion, Justice Field expressly states that submerged and coastal lands affected with a public trust can be alienated. Indeed, he notes that it is often in the public interest for the state to do so.").

62. *Illinois Central*, 146 U.S. at 455–56 (emphasis added).

63. Lazarus, *supra* note 27, at 640 (quoting Sax, *supra* note 14, at 489); *see also* BLACK'S LAW DICTIONARY 1026 (9th ed. 2009) (defining "lodestar" as a "guiding star; an inspiration or model").

corporations.[64] On the other hand, by allowing states to deed away submerged lands upon a finding that such conveyance will not be a "detriment to the public interest,"[65] the Court essentially conflated the concept of the government's general regulatory authority under its police power[66] with that of the public trust doctrine's discrete obligations arising from traditional property and trust law.[67]

C. *State-Specific Public Trust Doctrines*

The contours of the public trust doctrine are predominantly determined by state—rather than federal—common law.[68] This distinction is largely the result of the historical role of states in managing resources like water and wildlife.[69] Thus, every state's doctrine has evolved in parallel, each forming a distinct set of protected resources and public uses, as well as unique mechanisms of enforcing the obligations imposed on the government. When viewed broadly, there are common threads that tie these independent state doctrines together; however, their differences ultimately may prove to be determinative of whether they can be used to address the climate crisis.

1. Overview of State Doctrines

Although each state's doctrine is unique, the approaches to trustee duties and obligations can be categorized into two main

64. *See* Lazarus, *supra* note 27, at 639 ("According to the Court, at some level a state legislature is powerless to convey into private hands a natural resource as important as Chicago's harbor.").

65. *Illinois Central*, 146 U.S. at 456.

66. The government's police power has historically been defined as "the imposition of a wholesome restraint upon the[] exercise [of private rights], such a restraint as will prevent the infliction of injury upon others in the enjoyment of them." CHRISTOPHER G. TIEDEMAN, A TREATISE ON THE LIMITATIONS OF POLICE POWER IN THE UNITED STATES 2 (1886). It is often characterized as a dual discretionary power to prohibit wrongful conduct and to regulate rightful conduct of individuals. *See, e.g.*, Randy E. Barnett, *The Proper Scope of the Police Power*, 79 NOTRE DAME L. REV. 429, 430, 475, 483, 493 (2004). For more on the distinction between the police power and the public trust doctrine, see *infra* Part III.A.

67. *See* Huffman, *supra* note 27, at 58–59.

68. *See* PPL Mont., L.L.C. v. Montana, 132 S. Ct. 1215, 1235 (2012); District of Columbia v. Air Fla., Inc., 750 F.2d 1077, 1082 (D.C. Cir. 1984); Alec L. v. Jackson, 863 F. Supp. 2d 11, 15 (D.D.C. 2012); *see also* Appleby v. New York, 271 U.S. 364, 395 (1926) (stating that the *Illinois Central* decision was not an announcement of a federal public trust doctrine, but rather that "the conclusion reached was necessarily a statement of Illinois law"); Huffman, *supra* note 27, at 63 ("Indeed, the nature and extent of the public trust in navigable waters were understood by everyone, including the United States Supreme Court, to be questions of state law.").

69. *See* Wood I, *supra* note 13, at 107–08.

groups: (1) those that view the doctrine as less stringent and simply limit the government's ability to take actions which "adversely affect trust concerns";[70] and (2) those that view it as more restrictive and impose an affirmative duty on the government to guard, maintain, and restore trust resources actively.[71]

The former category is the majority approach, under which most states generally restrict the government's ability to degrade trust assets through one of three standards.[72] The first and most lenient standard requires "some relationship between the proposed governmental action and a legitimate public purpose" in order for the government to degrade the resource at issue—in essence, a reiteration of the state's general police power.[73] The second type of standard requires the government to consider the full potential consequences of its actions and prevents it from proceeding if such action would result in "substantial impairment" to the trust assets, rising above the level of "minimal" harm or "limited encroachments."[74] The third and most stringent type of standard requires the legislature to maintain the natural resources that fall within the public trust[75] and to provide "[c]lear [s]tatutory [a]uthority" before the government can take any action which would harm the trust.[76]

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70. *See* Lazarus, *supra* note 27, at 650.

71. Lazarus, *supra* note 27, at 650; *see also* State v. Zimring, 566 P.2d 725, 735 (Haw. 1977) ("Under public trust principles, the State as trustee has the duty to protect and maintain the trust property and regulate its use. Presumptively, this duty is to be implemented by devoting the land to actual public uses, e.g., recreation." (footnote omitted)); Wood I, *supra* note 13, at 106 ("The legislature is primary trustee; the executive branch, acting as agent of the trustee, is vested with the same public trust obligation.").

72. *See* Lazarus, *supra* note 27, at 650–51.

73. *See id.* at 651.

74. *Id.* at 652–53; *see also* Long Beach v. Mansell, 476 P.2d 423, 439 (Cal. 1970) ("[O]nly a small portion of the original trust grant was being freed from the public trust .... We cannot interfere with the Legislature's decision that the public easement may be abrogated as to this relatively small parcel." (citing Atwood v. Hammond, 48 P.2d 20, 26 (Cal. 1935))); Morse v. Oregon Div. of State Lands, 590 P.2d 709, 712 (Or. 1979) ("There is nothing in the public trust doctrine as espoused by *Illinois Central* or *Shively* which limits fills of the present kind to those for water-related uses. There is no grant here to a private party which results in such substantial impairment of the public's interest as would be beyond the power of the legislature to authorize."); Hixon v. Pub. Serv. Comn'n, 146 N.W.2d 577, 582 (Wis. 1966) ("While the state of Wisconsin holds the beds of navigable waters in trust for all its citizens, the legislature may authorize limited encroachments upon the beds of such waters where the public interest will be served." (footnotes omitted)).

75. *See supra* note 69 and accompanying text.

76. Lazarus, *supra* note 27, at 654.

The extent to which each state views the underlying common law as flexible has largely determined how that state's public trust doctrine evolved.[77] As discussed in the previous section, the public trust doctrine—in its original manifestation—contemplated the government holding only submerged lands beneath navigable waters in trust for the benefit of the public.[78] However, as the doctrine has been considered and applied across the fifty states, it has in some instances grown to encompass additional natural resources as trust assets. A narrow example of this type of expansion is incorporation of the dry sand beach area into the trust "corpus."[79] In contrast, the broadest example is extension of the doctrine to cover all natural resources.[80] In the middle of these two extremes, state courts have extended application of the public trust doctrine to protect resources such as wildlife[81] and water quality.[82] Additionally, the classic public trust doctrine protected the public's right of access to protected resources for the limited purposes of navigation, commerce, and

77. *See, e.g.*, Marks v. Whitney, 491 P.2d 374, 380 (Cal. 1971) ("The public uses to which tidelands are subject are sufficiently flexible to encompass changing public needs. In administering the trust the state is not burdened with an outmoded classification favoring one mode of utilization over another."); *In re* Water Use Permit Applications, 9 P.3d 409, 447 (Haw. 2000) ("The public trust, by its very nature, does not remain fixed for all time, but must conform to changing needs and circumstances."); Matthews v. Bay Head Improvement Ass'n, 471 A.2d 355, 365 (N.J. 1984) ("Archaic judicial responses are not an answer to a modern social problem. Rather, we perceive the public trust doctrine not to be 'fixed or static,' but one to 'be molded and extended to meet changing conditions and needs of the public it was created to benefit.' "); Weden v. San Juan Cnty., 958 P.2d 273, 283 (Wash. 1998) ("Since as early as 1821, the public trust doctrine has been applied throughout the United States 'as a flexible method for judicial protection of public interests in coastal lands and waters.' ").

78. *See supra* Part I.B.

79. *See, e.g.*, *Matthews*, 471 A.2d at 365–66.

80. *See, e.g.*, Save Ourselves, Inc., v. La. Envt'l Control Comm'n, 452 So. 2d 1152, 1154 (La. 1984).

81. *See, e.g.*, *In re* Complaint of Steuart Transp. Co., 495 F. Supp. 38, 40 (E.D. Va. 1980); Baxley v. State, 958 P.2d 422, 434 (Alaska 1998); United States v. State Water Res. Control Bd., 182 Cal. App. 3d 82, 150 (Cal. Ct. App. 1986). The case of *Geer v. Connecticut* is often cited by proponents of further expansion of the doctrine to include wildlife. *See* Geer v. Connecticut, 161 U.S. 519, 529 (1896), *overruled by* Hughes v. Oklahoma, 441 U.S. 322, 325 (1979) (holding that states do not own wildlife). However, *Geer* focused on the concept of the wildlife trust, a government responsibility which is historically distinct from the public trust doctrine. *See* MICHAEL J. BEAN & MELANIE J. ROWLAND, THE EVOLUTION OF NATIONAL WILDLIFE LAW 14–15 (3d ed. 1997).

82. *See, e.g.*, Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 728 (Cal. 1983) (discussing a state's water rights); Robinson v. Ariyoshi, 658 P.2d 287, 311–12 (Haw. 1982); United Plainsmen Ass'n v. N.D. State Water Conservation Comm'n, 247 N.W.2d 457, 463 (N.D. 1976); *see also* Lazarus, *supra* note 27, at 648 ("The result has been a dramatic movement in the geographical application of the trust doctrine away from submerged navigable beds to water resources generally.").

fishing.[83] This limited concept of public use has been expanded in many states to ensure the public's right to recreation and aesthetic enjoyment of the state's protected resources.[84]

2. North Carolina's Public Trust Doctrine

In contrast with the states that have expanded their doctrines to protect additional resources, North Carolina has simultaneously limited the scope of the classic formulation of the public trust doctrine and strengthened its protections of the resources that remain within that scope. In order for the lands beneath a body of water to come under the purview of the state's doctrine, the waters above must be "navigable in fact"—defined in the landmark North Carolina public trust doctrine case, *Gwathmey v. Department of Environment, Health & Natural Resources*,[85] as navigable "by useful vessels, including small craft used for pleasure."[86] This constitutes a rejection of the "common law tidal test," which defined navigable waters as those affected by the ebb and flow of the ocean tides[87]—a test that the *Illinois Central* Court expanded upon,[88] and which many states have expressly adopted.[89]

Additionally, North Carolina courts have adopted a narrow reading of the navigability test announced by the United States

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83. *See supra* Part I.B.

84. *See, e.g.*, Marks v. Whitney, 491 P.2d 374, 380 (Cal. 1971); Borough of Neptune City v. Borough of Avon-by-the-Sea, 294 A.2d 47, 54 (N.J. 1972).

85. 342 N.C. 287, 464 S.E.2d 674 (1995).

86. *Id.* at 300, 464 S.E.2d at 682; *see also* N.C. GEN. STAT. § 146-64(4) (2011) (defining navigable waters as "all waters which are navigable in fact"). *Gwathmey* goes on to clarify: "[I]f a body of water in its natural condition can be navigated by watercraft, it is navigable in fact and, therefore, navigable in law, even if it has not been used for such purpose. Lands lying beneath such waters that are navigable in law are the subject of the public trust doctrine." *Gwathmey*, 342 N.C. at 301, 464 S.E.2d at 682.

87. *See supra* notes 31–34 and accompanying text (describing the English common law navigability test as based on the ebb and flow of the tides).

88. *See supra* notes 57–58 and accompanying text (describing *Illinois Central*'s expansion on the English navigability test).

89. *See* Robin Kundis Craig, *A Comparative Guide to the Eastern Public Trust Doctrines: Classifications of States, Property Rights, and State Summaries*, 16 PENN. ST. ENVTL. L. REV. 1, 11–14 (2007); *see also* Hirsch v. Maryland Dep't of Natural Res., Water Res. Div., 416 A.2d 10, 12 (Md. 1980) ("Navigable water has traditionally been defined in Maryland as water subject to the ebb and flow of the tide."); Brosnan v. Gage, 133 N.E. 622, 624 (Mass. 1921) ("Upon the reported evidence it appears that the Merrimack river . . . is navigable in fact, in the sense that it is and long has been used for useful purposes of navigation—that is, for trade and travel in the usual and ordinary modes—but is not a navigable river above the dam in the sense that the tide there ebbs and flows."); EAGLE, *supra* note 43, at 83 (using *Gwathmey* as an example of a state limiting the geographic scope of its public trust doctrine).

Supreme Court in 1874, which stated that "[t]he *capability* of use by the public for purposes of transportation and commerce affords the true criterion of the navigability of a river, *rather than the extent and manner* of that use."[90] For example, in 2009, the North Carolina Court of Appeals held that a lake was not subject to the public trust doctrine because its tributary, Crane Creek, was not navigable in fact.[91] Even though kayakers could navigate "small watercraft at various points upstream from the lake," the court held there was an "absence of evidence tending to show that the stream in question [was] passable by watercraft *over an extended distance* both upstream of, under the surface of, and downstream from the lake."[92]

Despite North Carolina's generally narrow interpretation of the navigability test, North Carolina courts "do[] not discriminate between natural and artificial waterways."[93] In *Fish House, Inc. v. Clarke*,[94] the North Carolina Court of Appeals quoted the Division of Coastal Management's CAMA handbook, which defines public trust areas broadly, including not only natural navigable waters but also "all waters in artificially created water bodies where the public has acquired rights by prescription, custom, usage, dedication or any other means."[95]

While North Carolina has generally limited the types of waterways which are protected under its public trust doctrine, it has

90. The Montello, 87 U.S. (20 Wall.) 430, 441 (1874) (emphasis added) ("It would be a narrow rule to hold that in this country, unless a river was capable of being navigated by steam or sail vessels, it could not be treated as a public highway."). However, this navigability test was announced in the context of determining federal courts' admiralty power, and thus is not directly applicable to the question of a state's definition of navigability for the purposes of its public trust doctrine. "Under accepted principles of federalism, the States retain residual power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine." PPL Mont., L.L.C. v. Montana, 132 S. Ct. 1215, 1235 (2012).

91. Bauman v. Woodlake Partners, LLC, 199 N.C. App. 441, 453, 681 S.E.2d 819, 827 (2009).

92. *Id.* (emphasis added). Similarly, in 1859, the Supreme Court of North Carolina held that a portion of the Yadkin River was not navigable, despite being used by canoes and flats carrying goods such as limes and flour, because it "was not navigable in fact for sea vessels, and, therefore, is not a watercourse altogether *publici juris*." State v. Glen, 52 N.C. (7 Jones) 321, 326 (1859).

93. Fish House, Inc. v. Clarke, 204 N.C. App. 130, 135, 693 S.E.2d 208, 212 (2010).

94. 204 N.C. App. 130, 693 S.E.2d 208 (2010).

95. *Id.* at 135, 693 S.E.2d at 213 (internal quotation marks omitted). The CAMA handbook "is a guide to the permit program," which is set up by the Coastal Resources Commission under the state's Coastal Area Management Act. DIV. OF COASTAL MGMT., N.C. DEP'T OF ENV'T & NATURAL RES., CAMA HANDBOOK FOR DEVELOPMENT IN COASTAL NORTH CAROLINA: INTRODUCTION (2007), *available at* http://dcm2.enr.state.nc.us/Handbook/howtouse.htm.

also expanded upon the classic doctrine in order to protect public access to such waters for recreational purposes such as swimming and hunting, in addition to the traditional purposes of navigation, commerce, and fishing.[96] Thus, although this is an expansion of the purposes for which public access and use were traditionally protected, its effect is limited in that these rights only exist in the context of waters which are navigable in fact; the public still has no express right of access or use in regards to other natural resources such as non-navigable waterways, wildlife, public lands, or air quality.

North Carolina follows the majority approach to imposing trustee obligations on the government through the third type of standard described above.[97] While it does not appear to impose an affirmative duty to protect or restore trust resources like the stricter minority, the state does require "a special grant of the General Assembly . . . in the *clearest and most express terms*" in order for the government to withdraw submerged lands from the protection of the doctrine and convey them in fee simple to private parties.[98] Absent such express authorization from the legislature, public trust resources conveyed by the government are presumed to remain subject to the public's right of access.[99] This principle extends to prohibit private acquisition of public trust lands by adverse possession or prescription.[100]

As a result, North Carolina has a fairly strong public trust doctrine as applied to coastal lands and navigable rivers, yet it is

96. N.C. GEN. STAT. § 1-45.1 (2011) ("As used in this section, 'public trust rights' means those rights held in trust by the State for the use and benefit of the people of the State in common . . . . They include, but are not limited to, *the right to navigate, swim, hunt, fish, and enjoy all recreational activities in the watercourses of the State* and the right to freely use and enjoy the State's ocean and estuarine beaches and public access to the beaches." (emphasis added)). Beaches are broadly defined by statute to include both "the wet sand area of the beach that is subject to regular flooding by tides and the dry sand area of the beach that is subject to occasional flooding by tides, including wind tides . . . . Natural indicators of the landward extent of the ocean beaches include, but are not limited to, the first line of stable, natural vegetation; the toe of the frontal dune; and the storm trash line." *Id.* § 77-20(e).

97. *See supra* text accompanying notes 75–76.

98. Gwathmey v. Dep't of Env't, Health & Natural Res., 342 N.C. 287, 304, 464 S.E.2d 674, 684 (1995) (emphasis added). However, only the government has standing to enforce the trust, meaning it is simultaneously the regulator and the regulated—which may operate to limit its overall effectiveness. *See generally* Town of Nags Head v. Cherry, Inc., __ N.C. App. __, __, 723 S.E.2d 156, 161 (2012).

99. *See, e.g.*, Shepard's Point Land Co. v. Atlantic Hotel, 132 N.C. 517, 534, 44 S.E. 39, 44 (1903), *overruled in part by Gwathmey*, 342 N.C. at 302, 464 S.E.2d at 683.

100. *See* N.C. GEN. STAT. § 1-45.1 (2011); State *ex rel.* Rohrer v. Credle, 322 N.C. 522, 534, 369 S.E.2d 825, 832 (1988).

restricted in its application due to a narrow definition of navigable waterways.[101] This duality—more strongly protecting resources that traditionally fall under the public trust doctrine, while also limiting the inclusion of non-traditional resources—likely reflects the high premium North Carolina places on the existence and maintenance of its water and coastal resources.[102] This prioritization is evident in the North Carolina Constitution, which reiterates the state's public trust doctrine.[103] While it sets forth that it is "the *policy* of this State to conserve and protect its lands and waters for the benefit of all its citizenry," the preservation of other resources—such as air and forests—is subsequently listed as "a proper function of the State" as a *means* to accomplish the prioritized protection of "its lands and waters."[104] Thus, although the focus of the State's public trust doctrine on navigable waters and submerged lands could be interpreted as effectively excluding all other resources from such protection,[105] it ensures that the resources it *does* encompass enjoy the benefit of stricter and more extensive protection.

II. THE ATMOSPHERIC TRUST

As discussed above, the public trust doctrine has experienced varied application and expansion throughout the United States since its adoption in the 1800s. Its common law roots and inconsistent and evolving nature has left it open to both critical attacks and new attempts at expansion. One of the most notable debates over the future of the doctrine began in 2007, when Professor Mary Wood began publishing what would become a wealth of scholarship proposing to incorporate protection of the atmosphere into the public

101. *See supra* notes 90–92 and accompanying text.

102. *See* N.C. GEN. STAT. § 113A-129.1 (2011) ("It is hereby determined and declared as a matter of legislative finding that the coastal area of North Carolina contains a number of important undeveloped natural areas. These areas are vital to continued fishery and wildlife protection, water quality maintenance and improvement, preservation of unique and important coastal natural areas, aesthetic enjoyment, and public trust rights such as hunting, fishing, navigation, and recreation. . . . Important public purposes will be served by the preservation of certain of these areas in an undeveloped state. Such areas would thereafter be available for research, education, and other consistent public uses. These areas would also continue to contribute perpetually to the natural productivity and biological, economic, and aesthetic values of North Carolina's coastal area.").

103. *See* N.C. CONST. art. XIV, § 5; *see also* N.C. GEN. STAT. § 77-20(d) (2011) (referencing the public trust doctrine as "a part of the common heritage of the State recognized by Article XIV, Section 5 of the Constitution of North Carolina.").

104. N.C. CONST. art. XIV, § 5 (emphasis added).

105. However, it does not appear that expansion to protect additional resources has ever been formally proposed and expressly rejected by the state.

trust doctrine as a mechanism by which to address the climate crisis.[106] This proposal developed into the legal foundation for a coordinated litigation effort challenging agency decision-making in courts across the country, in an attempt to compel climate action at both the federal and state level. While the theory has been dismissed by many of the courts in which it has been advanced, it has experienced limited success in others and will be re-evaluated by many more on appeal.

A. Overview of the Atmospheric Trust Theory

The Atmospheric Trust theory argues that air should be treated as a trust asset under the public trust doctrine, just as submerged seabeds have been traditionally, and as other resources—like wildlife and water quality—have been more recently.[107] The theory is founded upon the premise that the amount of discretion that our modern environmental regulatory regime grants to administrative agencies to issue permits sanctioning pollution is flawed.[108] The Atmospheric Trust seeks to reframe the debate over whether and how to deal with greenhouse gas emissions by injecting into the conversation a sense of legal—rather than moral or political—obligation for the government to do so.[109] The Atmospheric Trust would impose an affirmative duty on legislatures to take action to mitigate climate change, requiring public officials to shift from a bureaucratic mindset to the mindset of a trustee who is obligated to "protect assets for present citizens and future generations . . . ."[110]

The viability of this theory rests upon, among other things, the validity of classifying air as a trust asset under the public trust doctrine.[111] Past expansions of the doctrine, and even its traditional

106. *See, e.g.*, Wood IV, *supra* note 16, at 373–74. *See generally* Wood V, *supra* note 16. For a full list of Professor Wood's publications, including those describing and developing her Atmospheric Trust theory, see *Mary Wood: Publications*, UNIV. OF OR. SCH. OF LAW, http://law.uoregon.edu/faculty/mwood/publications/ (last visited Nov. 15, 2013).

107. *See supra* Part I.C.1.

108. *See supra* note 16 and accompanying text.

109. *See, e.g.*, Wood II, *supra* note 16, at 64 (calling for "a paradigm shift from political discretion to fiduciary obligation in the management of natural resources").

110. *See* Wood III, *supra* note 16, at 130, 135, 139 ("At its core, the trust approach rejects political solicitude towards private, singular interests and instead demands a fiduciary duty of loyalty to the public to protect assets for present citizens and future generations. Trust principles reframe what is currently government's *discretion* to destroy our atmosphere and other resources into an *obligation* to defend those resources—as commonly held assets in the Endowment we must hand down to our children for their survival.").

111. *See* Wood I, *supra* note 13, at 113 ("As yet, there is no precedent declaring these [public trust] principles in the context of the atmosphere . . . ."). *But see* M.C. Mehta v. Kamal Nath, (1997) 1 S.C.C. 388, 413 (India) ("[The] [p]ublic at large is the beneficiary of

manifestations, have been grounded in the conviction that "certain interests are so particularly the gifts of nature's bounty that they ought to be reserved for the whole of the populace"[112] and that "some resources are so central to the well-being of the community that they must be protected by distinctive, judge-made principles."[113] Given these sentiments, a valid argument can certainly be made in support of the idea that the entire human population has a vested interest in air quality and climate stability.[114] The global climate no doubt plays a key role in every aspect of society, from public health to private business endeavors. Civilization undoubtedly depends upon the existence of air clean enough to breathe and weather predictable enough to support agriculture. People use the stratosphere as a grand highway for air transportation, and they rely on the mesosphere to protect them from cosmic bombardment of meteors. As necessary as water is to human civilization, air certainly must occupy at least the same level of significance and importance to society.[115]

B. Atmospheric Trust Roles, Duties, and Obligations

The Atmospheric Trust theory is an extension of the public trust doctrine that designates roles of the various interests at play according to traditional trust law. The beneficiaries of the trust would include current and future generations, encompassing all citizens within the jurisdiction of the United States.[116] The legislature would

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the sea-shore, running waters, *airs*, forests and ecologically fragile lands." (emphasis added)); J. INST. at 2.1.1 ("Now the things which are, by natural law, common to all are these: the *air*, running water, the sea and therefore the seashores." (emphasis added)).

112. Sax, *supra* note 14, at 484–85 (also stating that "certain uses have a peculiarly public nature that makes their adaptation to private use inappropriate").

113. Charles F. Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C. DAVIS L. REV. 269, 315 (1980).

114. *See, e.g.*, Plaintiffs' Original Petition at 4, Bonser-Lain v. Tex. Comm'n on Envtl. Quality, No. D-1-GN-11-002194, 2011 WL 8202306 (Tex. Dist. Ct. July 21, 2011) (describing plaintiffs as a group of "youth and young adults, who represent a living generation of public trust beneficiaries who have a profound interest in ensuring that the climate remains stable"). Professor Wood attempts to take this one step farther, extending the concept to ecological stability more generally. *See* Wood II, *supra* note 16, at 84 ("A holistic approach would recognize the people's interests in all resources sustaining ecological balance—i.e., all natural resources." (footnote omitted)).

115. *See* Wood I, *supra* note 13, at 112.

116. *See* Wood II, *supra* note 16, at 67. Professor Wood also proposes further expansion of this theory to a Global Atmospheric Trust, under which all current and future generations around the world would be beneficiaries, with each nation as a sovereign cotenant trustee. *See id.* at 87; Wood I, *supra* note 13, at 124–26; Wood III, *supra* note 16, at 137–38; Wood IV, *supra* note 16, at 373, 376. Each country, as a trustee with unity of possession over the atmospheric trust asset, would be charged with the duty not to

serve as the trustee of the global atmosphere as a common asset, and executive agencies would act as its agents, charged with implementing its fiduciary trust duties.[117] Finally, the courts would serve as "the ultimate guardian of the trust," charged with defining and enforcing its obligations in furtherance of the best interest of its beneficiaries, the public.[118]

The legislature (and administrative agencies), as trustee, would be charged with the duty of undivided loyalty to the public.[119] Its most basic fiduciary obligation would be to implement mechanisms to reduce greenhouse gas emissions in order to maintain equilibrium of the atmosphere.[120] In carrying out its trust obligations, the government would be bound to act, first and foremost, in the best interest of current and future generations.[121] Standard trust law creates a fiduciary standard that could be applied to the government and require it, as trustee of the atmosphere, to "do all acts necessary for the preservation of the trust *res* which would be performed by a reasonably prudent man employing his own like property for purposes similar to those of the trust."[122]

In order to promote the interests of the beneficiaries, the government would be charged with the traditional trust duty of protection and the duty not to commit waste.[123] Although the trustee would have the ability to allow *some* use and/or allocation of the trust assets, it must pursue the course of action which, among statutory alternatives, "is most protective of the assets."[124] The people, as trust beneficiaries, may enforce trust obligations against government

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waste and would be liable to other nations for destroying or abusing the resource "so as to destroy permanently its value . . . ." Wood II, *supra* note 16, at 84–87.

117. Wood III, *supra* note 16, at 93 (quoting Seminole Nation v. United States, 316 U.S. 286, 296–97 (1942)).

118. *Id.*

119. *See id.* at 93, 99–101.

120. The necessary reduction to maintain equilibrium—the concentration of atmospheric greenhouse gases at which the climate would stabilize—would be determined by scientific prescription, which would currently mandate a six percent decrease in global emissions per year, starting in 2012. *See* Wood I, *supra* note 13, at 129.

121. *Id.* at 109; *see also* Wood II, *supra* note 16, at 69 ("[G]overnment trustees, who serve at the will of the public, may not allocate rights to destroy what the people legitimately own for themselves and for their posterity.").

122. Wood III, *supra* note 16, at 94 (footnote omitted).

123. *See* Wood II, *supra* note 16, at 77; Wood III, *supra* note 16, at 94–95; Wood IV, *supra* note 16, at 376. The duty not to commit waste would apply to the trustee, as well as sovereign cotenant trustees. *See* Wood III, *supra* note 16, at 95 ("Trustees and cotenants alike have duties to protect the asset against waste.").

124. Wood III, *supra* note 16, at 104–05.

trustees to protect the atmosphere from waste or unreasonable impairment.[125]

In general, the trust framework offers several principles that anchor the duty of protection. For example, existing private rights—such as licenses or permits—enabling individuals or companies to pollute could be treated as subordinate to public rights, and the government could revoke permits that conflict with the trust.[126]Atmospheric Trust litigation draws its fiduciary standard from a scientific prescription to restore equilibrium to the atmosphere by reducing global carbon emissions by six percent annually.[127] The government could implement this reduction through a variety of regulations, for example through pricing mechanisms which would internalize the environmental costs of pollution,[128] a carbon tax or a cap and trade system,[129] or the redirection of energy subsidies from fossil fuels to renewables.[130] Government trustees would undoubtedly have to decide what carbon emissions are most justified.[131]

In addition to the duty of undivided loyalty and the duty of protection, the government, as trustee, would be charged with the duty to provide an accounting of carbon emissions.[132] Traditional trust law would require the government to "disclose all matters pertaining to the health of the trust, and [to] provide an accounting of the profits and expenses to the trust."[133] This disclosure would allow for heightened transparency and enable better enforcement of the trust, the management of which would be measured and evaluated according to the health of the natural resources constituting the trust assets, as determined by scientific experts.[134]

Responsibility for enforcement of the Atmospheric Trust would ultimately rest in the judicial branch.[135] In this context, the current

125. *See id.* at 95.

126. *Id.* at 106–07.

127. Wood I, *supra* note 13, at 129. The government could phase out the most egregious polluters first, perhaps through a moratorium on new coal-fired power plants. *See id.* at 107; Wood IV, *supra* note 16, at 378.

128. *See* Wood III, *supra* note 16, at 110.

129. *See* Wood IV, *supra* note 16, at 378. For a cap and trade system initiated pursuant to an Atmospheric Trust, the threshold—or cap—would have to be set no higher than the total maximum use allowed to be "conveyed" under the public trust doctrine. *See* Coplan, *supra* note 27, at 329.

130. *See* Wood III *supra* note 16, at 136; Wood IV, *supra* note 16, at 378.

131. *See* Wood III, *supra* note 16, at 110.

132. *See id.* at 94–98.

133. *Id.* at 101 (footnote omitted).

134. *See id.* at 95.

135. *See* Wood II, *supra* note 16, at 75.

system of extensive judicial deference to agency decision-making[136] would necessarily give way to a new standard, under which the legislature and administrative agencies would be obliged to satisfy their fiduciary obligations rather than having discretion to infringe upon the terms of the trust.[137] The traditional formulation of the public trust doctrine suggests that courts could override government decisions or actions that degrade the trust.[138] Additionally, application of the public trust doctrine would shift the burden of proof from the complainant to the agency, "reversing the presumption of agency regularity and expertise,"[139] and alleviating the difficulty citizens otherwise face in demonstrating breach of the permissive "arbitrary and capricious" standard.[140] The judicial remedy could take the form of issuing declaratory judgments to require the legislature to implement emissions reductions and granting injunctive relief to enforce the fiduciary standard of care through a carbon accounting and emissions reduction plan.[141]

C. *Atmospheric Trust Litigation*

Our Children's Trust ("the organization"), an environmental nonprofit organization based in Oregon, has built upon this scholarship on the Atmospheric Trust.[142] It has organized a nationwide effort to bring suit in various federal and state courts, challenging the government's failure to address the climate crisis as a violation of its fiduciary duties under the public trust doctrine.[143] To date, the organization has coordinated the filing of Atmospheric Trust lawsuits in twelve state courts and in federal court.[144] The outcomes of these cases have generally been negative at the trial

136. *See generally* Chevron v. Natural Res. Def. Council, Inc., 467 U.S. 837, 844 (1984) (establishing the *Chevron* deference standard for agency interpretations); United States v. Mead Corp., 533 U.S. 218, 226–27 (2001) (clarifying when *Chevron* deference applies).

137. *See* Wood II, *supra* note 16, at 76.

138. *Id.* at 75.

139. Lazarus, *supra* note 27, at 654.

140. *See* Sax, *supra* note 14, at 499; *see also* 5 U.S.C. § 706(2)(A) (2012) (setting forth the "arbitrary and capricious" standard of review for agency action).

141. *See* Wood II, *supra* note 16, at 144–46.

142. *See About Us*, OUR CHILDREN'S TRUST, http://ourchildrenstrust.org/about (last visited Nov. 15, 2013).

143. *See Legal Action*, OUR CHILDREN'S TRUST, http://ourchildrenstrust.org/Legal (last visited Nov. 15, 2013). Under the public trust doctrine, citizen beneficiaries have standing to bring suit "against their governmental trustees for failing to protect their natural trust." Wood I, *supra* note 13, at 132; *see also* Marks v. Whitney, 491 P.2d 374, 381 (Cal. 1971) (stating private citizens have standing to sue the government under the public trust doctrine).

144. See *infra* notes 147–80 and accompanying text.

court stage, but many are still pending appeal, and some have shown positive signs indicating potential for success on the merits.[145]

1. Atmospheric Trust Litigation in Federal Court

In the spring of 2012, the United States District Court for the District of Columbia considered the organization's federal lawsuit, *Alec L. v. Jackson*,[146] alleging the government's violation of its public trust duty to protect the atmosphere for current and future generations.[147] The plaintiffs' amended complaint asserted that the atmosphere is "no different" from other resources subject to the public trust doctrine and that "the United States government has an affirmative fiduciary obligation to control atmospheric contamination that has caused catastrophic and irreparable damage to our lands, businesses, national security, and health."[148]

In May 2012, the court granted the defendants' motion to dismiss, with prejudice, for lack of subject matter jurisdiction and failure to state a claim.[149] This ruling was based on the court's review of precedent establishing that the public trust doctrine is strictly a matter of state law, therefore precluding federal jurisdiction.[150] The court additionally reasoned that even if there were a federal public trust doctrine, its application to the atmosphere would be precluded by federal regulation of air pollution under the Clean Air Act.[151] In its dismissal of the case, the court expressed optimism that the parties would nevertheless be able to work together to solve the climate crisis: "All of the parties seem to agree that protecting and preserving the environment is a more than laudable goal, and the Court urges everyone involved to seek (and perhaps even seize) as much common ground as courage, goodwill and wisdom might allow to be discovered."[152]

145. *See infra* Part II.C.2.

146. 863 F. Supp. 2d 11 (D.D.C. 2012), *motion to reconsider denied*, 2013 U.S. Dist. LEXIS 72301 (D.D.C. May 22, 2013).

147. The case was originally filed in the Northern District of California, but the court granted defendants' motion to transfer venue. *See* Alec L. v. Jackson, No. C-11-2203 EMC, 2011 U.S. Dist. LEXIS 140102 (N.D. Cal. Dec. 6, 2011).

148. First Amended Complaint for Declaratory and Injunctive Relief at 1, Alec L. v. Jackson, 863 F. Supp. 2d 11 (D.D.C. 2012) (No. C11-02203).

149. *See Alec L.*, 863 F. Supp. 2d at 12–13.

150. *See id.* at 15.

151. *Id.* at 15–16.

152. *Id.* at 17.

2. Atmospheric Trust Litigation in State Courts

The majority of Atmospheric Trust lawsuits filed in state courts have met similar fates as *Alec L.*[153] So far, district courts have granted state defendants' motions to dismiss with prejudice in Alaska,[154] Arizona,[155] Colorado,[156] Minnesota,[157] Oregon,[158] and Washington.[159] A lawsuit filed in Montana was dismissed upon denial of plaintiffs'

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153. In addition to the cases discussed in this section, lawsuits have also been filed in California and Kansas, although these have not yet progressed to a disposition. *See* Petition for Declaratory Judgment, for Writ of Mandamus and Application for Injunctive Relief, Farb v. Brownback, No. 12C-001133 (Kan. Dist. Ct. filed Oct. 18, 2012), *available at* http://ourchildrenstrust.org/sites/default/files/KansasFiledPetition.pdf; Complaint, Blades v. State, No. CGC-11-510725 (Cal. Super. Ct. May 4, 2011), *available at* http://www.eenews.net/assets/2011/05/05/document_gw_04.pdf. The *Farb* case was dismissed without prejudice because the plaintiff needed first to petition the Kansas Department of Health and Environment before seeking relief in the courts. *See* Press Release, Our Children's Trust, Kansas Teenager Pledges to Petition Department of Health and Environment for Climate Change Regulations After Court Tells Her to Go to Agency (June 13, 2013), *available at* http://ourchildrenstrust.org/sites/default/files/2013.06.13-KansasPR.pdf. Plaintiffs in the *Blades* case agreed to a voluntary dismissal of the case without prejudice, with intent to re-file at a later date. *See California Legal Updates*, OUR CHILDREN'S TRUST, http://www.ourchildrenstrust.org/state/california (last visited Nov. 15, 2013).

154. Davis v. Alaska Dep't of Natural Res., No. 3AN-11-07474CI (Alaska Super. Ct. March 2012). Plaintiffs appealed to the Alaska Supreme Court, and oral argument was heard on October 3, 2013. *See Atmospheric Trust Oral Arguments Heard Before Alaska Supreme Court*, OUR CHILDREN'S TRUST, http://ourchildrenstrust.org/event/524/atmospheric-trust-oral-arguments-heard-alaska-supreme-court (last visited Nov. 15, 2013).

155. Peshlakai v. Brewer, No. CV2011-010106 (Ariz. Dist. Ct. Feb. 10, 2012), *available at* http://www.arnoldporter.com/resources/documents/Peshlakai.pdf. The court of appeals upheld the district court's decision on state constitutional grounds, declining to make a finding as to whether or not the doctrine could be expanded to protect the atmosphere. *See* Butler v. Brewer, No. 1 CA-CV 12-0347, 2013 Ariz. App. Unpub. LEXIS 272, at *24 (Ariz. Ct. App. 2013).

156. Martinez v. State, No. 2011CV-004377 (Colo. Dist. Ct. Nov. 7, 2011), *available at* http://www.mountainstateslegal.org/news-updates/case-documents/2011/11/07/order-re-defendants-and-intervenor-s-motions-to-dismiss#.Uhd2a2SlBu9.

157. Aronow v. Dayton, No. 62-CV-11-3952 (Minn. Dist. Ct. Jan. 30, 2012), *available at* http://climatelawyers.com/file.axd?file=2012%2F2%2F20120130+Order+of+Dismissal%2C+Aronow+v.+Minnesota+(Our+Children's+Trust).pdf.

158. Chernaik v. Kitzhaber, No. 16-11-09273 (Or. Cir. Ct. April 5, 2012), *available at* http://www.arnoldporter.com/resources/documents/Chernaik.pdf.

159. Svitak v. State, No. 11-2-16008-4 (Wash. Super. Ct. Mar. 2, 2012), *available at* http://www.arnoldporter.com/resources/documents/Svitak.pdf. The Washington Supreme Court denied plaintiffs' petition for direct review. *See Appellate Court Case Summary*, WASHINGTON COURTS, http://dw.courts.wa.gov/index.cfm?fa=home.casesummary&crt_itl_nu=A08&casenumber=871981&searchtype=aName&token=4A15C689A3B08DAF102B27F1CBDD8EB6&dt=69CDECAA06BE8976DE4D06F4F70781F2&courtClassCode=A&casekey=158897420&courtname=Supreme%20Court (last visited Nov. 15, 2013) (showing the Order Terminating Review as being filed on December 4, 2012). The case is now pending appeal before the Washington Court of Appeals, Division I. *Id.*

petition for original jurisdiction in the Montana Supreme Court.[160] Lawsuits filed in New Mexico[161] and Iowa[162] were allowed to proceed to the merits, but the end result was the same. Although the New Mexico case survived the defendant's motion to dismiss,[163] the district court granted the defendant's motion for summary judgment.[164] In Iowa, the trial court declined to expand the state's public trust doctrine to include the atmosphere, and the Iowa Court of Appeals affirmed.[165]

However, the New Mexico and Iowa cases appear to suggest that adopting the Atmospheric Trust would not be out of the question in different circumstances. Judge Singleton of the New Mexico trial court indicated that it might be appropriate to expand the doctrine if the political branches completely abdicated their responsibility to consider the atmosphere in enacting environmental protections.[166] She granted defendant's motion for summary judgment because of

160. Order, Barhaugh v. State, No. OP 11-0258 (Mont. June 15, 2011), *available at* http://edberry.com/SiteDocs/PDF/CPI/Order-Final-Disposition_Deny.pdf.

161. Amended Complaint for Declaratory and Injunctive Relief, Sanders-Reed v. Martinez, No. D-101-CV-2011-01514 (N.M. Dist. Ct. May 4, 2011), *available at* http://www.eenews.net/assets/2012/06/29/document_pm_02.pdf.

162. Petition for Judicial Review, Filippone v. Iowa Dep't of Natural Res., No. 05771-CV-008748 (Iowa Dist. Ct. Jan. 30, 2012), *available at* http://www.ourchildrenstrust.org/sites/default/files/IA%20Complaint.pdf.

163. *See* Order Granting in Part and Denying in Part Defendants' Motion to Dismiss Plaintiffs' Amended Complaint, *Sanders-Reed*, No. D-101-CV-2011-01514 (N.M. Dist. Ct. July 14, 2012), *available at* http://ourchildrenstrust.org/sites/default/files/Order%20Denying%20Motion%20to%20Dismiss.pdf ("Plaintiffs have made a substantive allegation that, notwithstanding statutes enacted by the New Mexico Legislature which enable the state to set state air quality standards, the process has gone astray and the state is ignoring the atmosphere with respect to greenhouse gas emissions.").

164. *See* Order Granting Defendants' Motion for Summary Judgment and Denying Plaintiffs' Motion for Summary Judgment, *Sanders-Reed*, No. D-101-CV-2011-01514 (N.M. Dist. Ct. July 4, 2013), *available at* http://climatelawyers.com/file.axd?file=2013%2f8%2f20130704+Order+on+Summary+Judgment+(Sanders-Reed+v.+Martinez).pdf. Plaintiffs filed a notice of appeal to the New Mexico Court of Appeals or Supreme Court on July 24, 2013. *Case Lookup*, NEW MEXICO COURTS, https://caselookup.nmcourts.gov/caselookup/app (last visited Nov. 15, 2013) (select case number search from tab menu, enter D-101-CV-201101514, click search).

165. *See* Filippone v. Iowa Dep't of Natural Res., No. 12-0444, 2013 Iowa App. LEXIS 279, at *7 (Iowa Ct. App. 2013) (citing lack of precedent to expand public trust doctrine); *Iowa Legal Updates*, OUR CHILDREN'S TRUST, http://www.ourchildrenstrust.org/state/Iowa (last visited Nov. 15, 2013) (discussing the district court's holding).

166. *See* Order Granting Defendants' Motion for Summary Judgment and Denying Plaintiffs' Motion for Summary Judgment, *Sanders-Reed*, No. D-101-CV-2011-01514, at Ex. A, 1 ("I think that in applying this Doctrine, . . . the Supreme Court [of New Mexico] would allow the judicial branch to bypass the political process if there was an indication that the political process had gone astray, that they had ignored what they were supposed to do, or if the agency was not attempting to apply the statutory scheme, or if the public was excluded from the process.").

this hesitancy to disrupt the state's separation of powers.[167] Judge Doyle, concurring in the Iowa Court of Appeals decision, echoed similar sentiments: "I agree there is no Iowa case law for extending the public trust doctrine to include the atmosphere. But, I believe there is a sound public policy basis for doing so."[168] Ultimately, both judges agreed that there was insufficient precedent to support such an expansion of the doctrine without compelling evidence that the political process was incapable of addressing the problem.[169]

One positive reaction of a state court to these Atmospheric Trust legal efforts occurred in July 2012, in a Texas state district court.[170] The plaintiffs, a group of "youth and young adults, who represent a living generation of public trust beneficiaries,"[171] brought suit to challenge the state environmental regulatory agency's denial of their petition for promulgation of regulations to reduce and track carbon dioxide emissions.[172] In a letter ruling, Judge Triana held that the public trust doctrine is *not* "exclusively limited to the conservation of the State's waters" and that it instead "includes all natural resources of the State."[173] The letter ruling also held that the state agency is not precluded from enacting more stringent air quality requirements than those mandated by the federal Clean Air Act.[174] This case, characterized as "a 'shot heard 'round the world' in climate change

167. *Id.* at 4 ("I believe that what we are really talking about, at bottom, are political differences, and that the real remedy is to elect people who believe that greenhouse gases are a problem, that man does contribute to climate change, and that those are the people who should be making policy decisions. But that's a political decision, not a Court decision.").

168. *Filippone*, 2013 Iowa App. LEXIS 279, at *9 (Doyle, J., concurring).

169. *Id.* at *10 ("[I]n view of our supreme court's stated reluctance to extend the public trust doctrine beyond the rivers, lakes, and the lands adjacent thereto, I do not feel it is appropriate for a three-judge panel of this court to take on the task of expanding the doctrine to include air."); Order Granting Defendants' Motion for Summary Judgment and Denying Plaintiffs' Motion for Summary Judgment, *Sanders-Reed*, No. D-101-CV-2011-01514, at Ex. A, 1 ("I have to say it's not an easy fit, because many of the cases with the Public Trust Doctrine arose in the context of water. And it's not easy, always easy to translate water or ownership of streams or stream beds to something like what to do about greenhouse gas emissions.").

170. Bonser-Lain v. Tex. Comm'n on Envtl. Quality, No. D-1-GN-11-002194, slip op. at 1 (Tex. Dist. Ct. Aug. 2, 2012), *available at* http://ourchildrenstrust.org/sites/default/files/TexasFinalJudgment.pdf.

171. Plaintiffs' Original Petition at 4, *Bonser-Lain*, No. D-1-GN-11-002194, *available at* http://www.law.uh.edu/faculty/thester/courses/Climate-Change-2012/BonserLain%20v%20TCEQ.pdf.

172. *Id.* at 1.

173. *Bonser-Lain*, No. D-1-GN-11-002194, slip op. at 1.

174. *See id.* at 2 (stating that "the FCAA requirement is a floor, not a ceiling, for the protection of air quality").

litigation,"[175] represents the first instance in which a contemporary court has expressly held that the atmosphere is a resource properly protected under the public trust doctrine.

Despite this seemingly expansive holding, the outcome of this case does not necessarily foreshadow the ultimate success of the Atmospheric Trust litigation effort. First and foremost, despite the judge's conclusion that the atmosphere is a trust resource under the public trust doctrine, the order did not direct the agency to regulate carbon dioxide emissions.[176] Instead, Judge Triana held that the agency's decision to deny the petition for rulemaking was "a reasonable exercise of [its] discretion" due to ongoing litigation over the relationship between state and federal regulation of greenhouse gases.[177] Second, the letter ruling notes that protection of air quality is not mandated solely by the public trust doctrine as a matter of common law, but also by the state constitution's express incorporation of the doctrine's principles.[178] Therefore, it is unclear whether the judge would have reached the same conclusion in the absence of such constitutional authority. And lastly, the precedential value of the court's holding is limited by the threat of being overturned on appeal.[179]

III. THEORETICAL FEASIBILITY AND PRACTICAL CONCERNS

The Atmospheric Trust proposal is indeed a creative and compelling legal theory, intended as a relatively simple, yet comprehensive, solution to the climate crisis society has so far failed to address. Amidst a broken system of piecemeal and incremental environmental laws, the Atmospheric Trust would operate as a

175. Press Release, Our Children's Trust, Alaska Youth Pursue Climate Case 1 (Nov. 16, 2012), *available at* http://ourchildrenstrust.org/sites/default/files/12-11-16%20AK%20Press%20Release%20.pdf.

176. *Bonser-Lain*, No. D-1-GN-11-002194, slip op. at 3.

177. *Id.*

178. *Id.* at 1–2. The letter ruling quotes the following provision of the Texas Constitution: "The conservation and development of all of the natural resources of this State, . . . and the preservation and conservation of all such natural resources of the State are each and all hereby declared public rights and duties; and the Legislature shall pass all such laws as may be appropriate thereto." *Id.* (citing TEX. CONST. art. XVI, § 59).

179. *See* Notice of Appeal, Bonser-Lain v. Tex. Comm'n on Envtl. Quality, No. D-1-GN-11-002194 (Tex. Dist. Aug. 23, 2012). The Third Court of Appeals of Texas held oral argument in the case on September 25, 2013. *See* Notice for Submission on Oral Argument, Bonser-Lain v. Tex. Comm'n on Envtl. Quality, No. 03-12-00555-CV (Tex. App. Aug. 5 2013), *available at* http://www.search.txcourts.gov/SearchMedia.aspx?MediaVersionID=1a501fb5-a269-42e8-b14f-6b109e7d17d9&coa=coa03&DT=SUBMISSION/OA&MediaID=ee78f839-5fcd-4dca-a153-5f597a100444.

macro-level approach to solving a macro-level problem.[180] However, the theory faces numerous theoretical and practical obstacles which it must address if it is to succeed in state court litigation outside of Texas (or on appeal in Texas, for that matter). Many of the theoretical concerns raised will be common to all states; many of the practical concerns, however, will be tied to the particular jurisdiction in which the Atmospheric Trust is proposed.[181]

A. Theoretical Concerns

One of the primary theoretical concerns arising from the Atmospheric Trust proposal is its potential to dilute the public trust doctrine itself, thereby weakening its power and import as an independent legal doctrine, distinct from the state's general police power.[182] This distinction is important for three reasons. First, there is an important difference in the extent of discretion granted to the government in deciding whether and how to regulate. Whereas the police power grants government the general *authority* to regulate, the public trust doctrine imposes a stricter *obligation* to do so.[183]

Second, the two sources of authority address different public concerns and thus regulate private conduct in different ways. Exercise of the police power has historically been limited to protecting public health and safety,[184] appearing predominantly in the form of regulation enacted in response to the development of new or threatened danger. In contrast, the public trust doctrine requires the government to prevent degradation to the trust assets,[185] which generally necessitates proactive regulation to guard against such damage occurring in the first place. Furthermore, the police power historically has been more concerned with protection of individual

180. *See* Wood I, *supra* note 13, at 126.

181. For discussion of these state-specific concerns as they apply to North Carolina, see *infra* Section III.B.

182. *See supra* note 66 and accompanying text.

183. *See* Wood I, *supra* note 13, at 108 (describing the public trust doctrine as "a property-based counterweight to discretionary police power"); Wood II, *supra* note 16, at 65 (describing the public trust doctrine as "property-based obligations of the sovereign"); Sax, *supra* note 12, at 478 (describing the public trust doctrine as a "special, and more demanding, obligation" than the police power).

184. *See* Wood II, *supra* note 16, at 65 (describing the police power as a "legislative authority and obligation to protect public health and welfare"); Lazarus, *supra* note 27, at 667 (describing scope of police power as limited to "narrow health and safety concerns," such as protecting private property and providing security from domestic crime and foreign invasion).

185. *See supra* Part I.

interests, while the public trust doctrine is entirely focused on protection of public interests.[186]

Third, and perhaps most important, courts review government action pursuant to each source of authority using different standards. At its core, the role of the police power is to protect the exercise and enjoyment of individuals' private rights to the extent they do not interfere with the private rights of others—essentially an authority to enforce public nuisance law.[187] Courts evaluate government regulation pursuant to the police power using a broad balancing test between the governmental interest and private expectations involved.[188] Such regulation is generally upheld if found to be "reasonable[]"[189] and based on a "common good"[190] or "public welfare"[191] justification. By contrast, the balancing test under the public trust doctrine is much more limited, and courts will review governmental action (or inaction) in the public trust context with a higher level of scrutiny.[192]

The confusion between these two forms of governmental authority has plagued public trust jurisprudence since *Illinois Central*.[193] As a result, the contemporary public trust doctrine is at risk of blurring into a police power, therefore losing its teeth and providing less and less protection for the resources within its scope. This is tantamount to "tak[ing] a rigorous legal principle and squeez[ing] it to death."[194] For states like North Carolina that have maintained a limited public trust doctrine in order to provide special

186. *See* Barnett, *supra* note 66, at 493 ("[P]roperly construed, the protection of individual rights is at the core of a state's police power."); Lazarus, *supra* note 27, at 636 (noting the contrast between *jus publicum* and *jus regium* and characterizing the police power as the protection of private property expectations).

187. *See* Barnett, *supra* note 66, at 479, 483–84.

188. *See* Lazarus, *supra* note 27, at 666.

189. Barnett, *supra* note 66, at 491.

190. *Id.* at 483, 487.

191. *Id.* at 488, 491.

192. *See supra* notes 139–41 and accompanying text (describing reversal of presumption in favor of government in context of public trust doctrine cases); *see also* Lazarus, *supra* note 27, at 666 (describing the standard as an application of "formalistic categories of property law" rather than as a balancing test).

193. *See supra* notes 65–67 and accompanying text; *see also* Lazarus, *supra* note 27, at 713 ("[T]he [Supreme] Court has plainly forecast its view that the public trust doctrine expresses no more than the sovereign's special interest in an aspect of its general police power authority."); Sax, *supra* note 14, at 478 ("Confusion has arisen from the failure of many courts to distinguish between the government's general obligation to act for the public benefit, and the special, and more demanding, obligation which it may have as a trustee of certain public resources.").

194. Sax, *supra* note 14, at 553.

protection for water and coastal resources, an attempt at such expansion could be the downfall of the doctrine altogether. The value of the public trust doctrine in such states lies in its operation as "a trump in the political game," separating the resources which the state considers to be most important to the public interest from the "multitude of competing interests in the give and take of the state legislatures," and affording them heightened protection from private interests.[195] Once the doctrine is expanded to protect more and more natural resources, however, this "trump" loses its value, as many resources would rise to the same level of significance. The resources that the doctrine traditionally protected could be left fully exposed to the tides of political discretion, alongside other natural resources, leaving them all to be managed essentially through the state's police power.[196]

Expanding the public trust doctrine to incorporate the atmosphere as a trust asset could be a significant step in creating this overlap with the police power and further eroding the distinction between the two. This may be especially true in jurisdictions where the public trust doctrine operates only as a prohibition on alienation of trust resources, rather than as an affirmative duty to protect and restore those resources.[197] And given that the former is the majority approach, the potential for additional confusion and dilution of the doctrine is significant.

Another theoretical concern implicated by the Atmospheric Trust proposal is an extension of a classic criticism of the public trust doctrine itself: decisions regarding natural resources that are so integral to the public interest should not be made solely by the judiciary, the one branch of American government that is largely unaccountable to the public and thus inherently anti-democratic.[198]

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195. Huffman, *supra* note 27, at 93.

196. *See* Lazarus, *supra* note 27, at 665 ("It is now well settled that the police power is the most fundamental source of government authority to prevent needless environmental harm and related risks to human health and welfare.").

197. *See supra* notes 68–73 and accompanying text; *see also* Huffman, *supra* note 27, at 96 ("The concept to which the rule of law is tethered would no longer be the public right in navigation, commerce and fishing in navigable waters. It would be the public interest as broadly conceived as anyone might imagine which is indistinguishable from the scope of the police power.").

198. *See* J. Peter Byrne, *The Public Trust Doctrine, Legislation, and Green Property: A Future Convergence?*, 45 U.C. DAVIS L. REV. 915, 927 (2012) ("[T]he initiative also exposes the public trust doctrine's greatest weakness: it simply claims too much.... [C]ourts around the world would truly become the 'Platonic guardians' of society .... Such authority would lack political legitimacy."); *see also* Huffman, *supra* note 27, at 100 ("In modern public trust law a special interest can be converted to a public right by the stroke

Moreover, given the importance of air and the atmosphere to modern society—and ultimately to human civilization—would it really be wise to hand over all management decisions affecting the atmosphere to the discretion of unelected, generalist judges who are likely unfamiliar with climate science; or are such important decisions properly reserved to the legislatures, which are accountable to the people, and executive agencies, which have the requisite expertise?[199] These classic questions of legal and political theory prove particularly salient in this context.

A third theoretical concern arising from Atmospheric Trust theory concerns the underlying purpose and spirit of the public trust doctrine. Given the "unclear ancestry" of the current formulation of the public trust doctrine, expanding it to also require protection of the atmosphere is that much more tenuous as a matter of legal precedent.[200] From the beginning, the purpose of the doctrine has been to promote commercial activity and economic growth.[201] Protecting navigable waters under the doctrine was premised entirely on their capacity to be used to conduct commerce and engage in other economic activities such as fishing.[202] The Atmospheric Trust proposal, on the other hand, seeks the opposite end: its purpose is to curb commercial and industrial use of the atmosphere in order to

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of a sympathetic judge's pen. That right will then serve to preempt the claims of private property owners and to trump the political process.... [T]he legislature speaks for the public. It is the only legitimate voice for the public interest."); Sax, *supra* note 14, at 521 ("The 'public trust' has no life of its own and no intrinsic content. It is no more—and no less—than a name courts give to their concerns about the insufficiencies of the democratic process."); Barton H. Thompson, *The Public Trust Doctrine: A Conservative Reconstruction & Defense*, 15 SOUTHEASTERN ENVTL. L.J. 47, 54 (2006) (describing the public trust doctrine as "anti-majoritarian—an effort by the judiciary to carve out an area of property law where courts are superior to the democratic branches of government").

199. *See* Lazarus, *supra* note 27, at 712 ("[R]egardless of judicial bias or desire, courts may lack sufficient competence in the environmental arena."); Sax, *supra* note 14, at 513 ("[C]ourts are accustomed to dealing with the meaning of statutory and constitutional language rather than with data which help to identify and compare the benefits and costs at stake in the cases before them.").

200. *See* Thompson, *supra* note 198, at 56–57 ("There is no precedent, in particular, for the extension of the public trust by some courts beyond tidal lands and navigable waterways, nor for the proposition that the public trust doctrine limits development of trust lands for economic purposes."); *see also* Huffman, *supra* note 27, at 103 ("[A] careful review of the history—the precedent—does not make the case for expanded application of the public trust doctrine.").

201. *See generally* Epstein, *supra* note 60 (explaining the broad beginnings of the public trust doctrine as a method of protecting land and waterways in order to advance commerce).

202. *See supra* Part I.B; *see also* Epstein, *supra* note 60, at 412, 416 (describing the original function of applying the doctrine to navigable waters as limiting governmental control over public resources).

maintain stability of the climate. Especially given the tenuous connection between the proposal for expansion and the doctrine's historical precedent,[203] courts may be reluctant to interpret the doctrine in a way that undermines its foundational principles of protecting navigable waters and promoting economic activity.

B. Practical Concerns in North Carolina

The Atmospheric Trust proposal raises a multitude of practical concerns, many of which are outside the scope of this Comment.[204] Some of the most pressing among them, however, are best illustrated by using North Carolina as a hypothetical case study. The likelihood of a North Carolina state court adopting the Atmospheric Trust is uncertain at best, given the courts' previous interpretations of the public trust doctrine[205] and the rising influence of special interests in the selection process of the state judiciary.[206] Much of the literature developing the Atmospheric Trust relies in part on the argument that the judiciary is best situated to make decisions in the public interest because it is isolated from the political influences which plague the other two branches of government.[207]

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203. *See supra* notes 37–43 and accompanying text.

204. Among these outstanding questions are the following: (1) If the atmosphere is incorporated into the public trust doctrine as a new trust asset, where would the line be drawn? What other resources would then also need to be considered for incorporation? Would every special interest start advocating for additional expansion of the doctrine? (2) How would the public trust doctrine actually be implemented? Would all current permits and other preexisting rights be rendered automatically void, or would some be grandfathered in and/or slowly phased out? Who would decide where to draw the line of how much air pollution would be allowed in order to strike a balance between economic growth (beneficial uses) and climate stability? Would the courts actively oversee management of the trust assets, or would they only intervene when someone with standing to sue sought to enforce the trust against the government? *See* Sax, *supra* note 14, at 482 ("However strongly one might feel about the present imbalance in resource allocation, it hardly seems sensible to ask for a freezing of any future specific configuration of policy judgments, for that result would seriously hamper the government's attempts to cope with the problems caused by changes in the needs and desires of the citizenry.").

205. *See supra* notes 85–101 and accompanying text.

206. *See infra* notes 208–11 and accompanying text.

207. *See, e.g.*, Wood I, *supra* note 13, at 105; Wood III, *supra* note 16, at 111; *see also* Corinna Barrett Lain, *The Unexceptionalism of "Evolving Standards,"* 57 UCLA L. REV. 365, 417 (2009) ("The whole point of having an unelected judiciary is its ability to serve as a check on majority rule, which is why the Supreme Court's countermajoritarian capacity undergirds most every normative theory of judicial review."). This Comment does not attempt to answer whether or not this assumption is correct—largely because the argument is less applicable when considered in the context of North Carolina, a state that rejects the model of judicial appointment by subjecting all of its state court judges to the will of the general electorate. *See* N.C. CONST. art. IV, § 16.

However, in a state like North Carolina, where the judiciary is elected rather than appointed, its presumed distinction from the other two branches of government on the basis of potential political influence is questionable. Although officially nonpartisan, the courts are subject to similar political pressures as other elected officials who may feel indebted to major campaign donors.[208] Indeed, the winner of the 2012 North Carolina Supreme Court election was backed by the N.C. Judicial Coalition, a "conservative leaning" political action committee (PAC),[209] which spent $1.94 million on television advertisements in support of the incumbent candidate.[210] Thus, in North Carolina, special interest lobbies have the opportunity to permeate through every branch of government.[211] The fossil fuel lobby and other industry proponents could conceivably influence an elected judge's interpretation of the public trust doctrine just as they

208. *See, e.g.*, Richard Briffault, *Reforming Campaign Finance Reform: A Review of Voting with Dollars*, 91 CALIF. L. REV. 643, 646 (2003) ("Private funding may potentially distort government decision making. When candidates depend on private donations, large donors and prospective donors may obtain special access, and their views and concerns may be given extra weight. This may involve not outright vote buying, but more subtle opportunities to participate more extensively and more effectively in influencing official actions. The Supreme Court has referred to this as 'the actuality and appearance of corruption resulting from large individual financial contributions.' " (quoting Buckley v. Valeo, 424 U.S. 1, 26 (1976)).

209. *North Carolina Judicial Coalition*, FOLLOWNCMONEY, http://www.followncmoney.org/committee/north-carolina-judicial-coalition?order=field_date_expenditure_value&sort=asc (last updated Jan. 24, 2013). An examination of the PAC's contributions reveals the following entries from official Republican organizations: $50,000 from the North Carolina Republican Party; $500 from the Forsyth County Republican Party; $1,000 from the NC Federation of Republican Women; $500 from the Henderson County Republican Womens [sic] Club; $5,000 from Charlotte Mecklenburg Republican Women; $500 from the Mountain High Republican Woman's Association; and $1,000 from the Union County Republican Party. *See id.* The PAC's largest donor, contributing $1.48 million, was a PAC itself—Justice for All N.C.—with its own "ties to Republicans." Mark Binker, *New Ad Hits Ervin in State Supreme Court Race*, WRAL NEWS (Nov. 2, 2012), http://www.wral.com/new-ad-hits-ervin-in-state-supreme-court-race/11731009/. The N.C. Judicial Coalition was run by Tom Fetzer, former Chairman of the North Carolina Republican Party. *See id.*

210. *See* FOLLOWNCMONEY, *supra* note 209. The PAC spent $1.3 million on the infamous "banjo ad" alone. Craig Jarvis, *Super PAC Spends $1.3 Million on Supreme Court Candidate*, CHARLOTTE OBSERVER (Oct. 30, 2012), http://www.charlotteobserver.com/2012/10/29/3630538/super-pac-spends-13-million-on.html.

211. *See* L. Jay Jackson, *Legislators and Special Interests are Making Sure We Get the State Court Judges They Want*, A.B.A. J., July 2013, at 56 (describing how corporate interests are expanding lobbying efforts to the judiciary); *see also N.C. Public Campaign Fund*, N.C. CTR. FOR VOTER EDUC., http://ncvotered.com/judges/ (last visited Nov. 15, 2013) ("An overwhelming 94 percent of North Carolina voters believe campaign contributions can sway a judge's ruling, according to a 2011 poll from the nonpartisan N.C. Center for Voter Education.").

can influence a legislator's vote on climate legislation.[212] Furthermore, such influence is more likely to go unnoticed by the public, since it can be masked through reference to some legal precedent—especially in cases deciding issues of law which are not settled or well-defined and thus open to interpretation.[213] Thus, the success or failure of the Atmospheric Trust proposal in a North Carolina state court may ultimately rest on the particular judges' personal convictions or connections to special interests, which could influence their willingness to interpret the public trust doctrine so expansively.[214]

Even if North Carolina state judges were to adopt the Atmospheric Trust theory into the state's public trust doctrine, the question then becomes: Would the state legislature let the decision stand?[215] Recent actions taken by the North Carolina General Assembly suggest the answer would be a resounding "no." The state legislature has clearly demonstrated its opposition to climate change legislation,[216] an indicator that it may be willing to take corrective

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212. *See, e.g.*, Sara Burrows, *Climate Change Commission Gets Cold Shoulder*, CAROLINA J. ONLINE (Aug. 4, 2010), http://www.carolinajournal.com/exclusives/display_exclusive.html?id=6679 (noting the role of "the energy, manufacturing, forestry, agricultural and auto industries" in blocking passage of climate legislation in North Carolina); Sue Sturgis, *The Big Money Behind the Assault Against Sea Level Rise Science in North Carolina*, INST. FOR S. STUDIES (July 11, 2012, 12:47 AM), http://www.southernstudies.org/2012/07/the-big-money-behind-the-assault-against-sea-level-rise-science-in-north-carolina.html (describing the influence of the real estate and home builders' lobbies over the passage of legislation banning the use of sea level rise data until 2016).

213. *See* Sax, *supra* note 12, at 553 ("Perhaps the most striking impression produced by a review of public trust cases in various jurisdictions is the sense of openness which the law provides; *there is generally support for whatever decision a court might wish to adopt.*" (emphasis added)); *see also* Lazarus, *supra* note 27, at 712 ("In the past, courts have used the public trust doctrine to support developmental activities they favored.").

214. *See* Byrne, *supra* note 198, at 919 ("[R]eliance on judges could backfire—their perceived solicitude for the environment could change to solicitude for individual property rights."); Lazarus, *supra* note 27, at 710 ("[T]he doctrine unjustifiably relies on the judiciary to further its environmental goals and, consequently, ultimately depends on a proenvironment judicial bias that is not enduring."); Sax, *supra* note 14, at 558 ("It should be obvious that courts operate with an extraordinary degree of freedom and that the procedural devices they employ are very significantly determined by their attitudes about the propriety of the policies which are before them.").

215. Under *Gwathmey*, the North Carolina General Assembly retains the authority to alter the state's interpretation and application of the public trust doctrine, subject only to the confines of the state constitution. Gwathmey v. Dep't of Env't, Health & Natural Res., 342 N.C. 287, 304, 464 S.E.2d 674, 684 (1995). While the common law doctrine creates a presumption of protection of trust resources, the legislature can overcome this presumption by express legislative grant. *See id.*

216. For example, in 2010 the General Assembly refused to implement the majority of recommendations and legislative proposals offered in the final report of its Legislative Commission on Global Climate Change. *See* Burrows, *supra* note 212 (additionally noting

action if the courts were to encroach upon this policy decision by adopting the Atmospheric Trust. Indeed, the General Assembly is so opposed to taking action on climate change that it passed legislation banning regulatory use of the state's Coastal Resources Commission's scientific data and predictions relating to the rate of sea level rise until July 2016.[217] Ironically, the bill was passed just after the United States Geological Survey published a report warning that sea level rise is happening three to four times faster along an east coast "hotspot"—from the southern tip of North Carolina to Massachusetts—than it is globally.[218] Instead of using this report to begin a conversation about how to best protect North Carolina coastal communities from increased storm surges and more frequent flooding, the state legislature opted to look the other way and ignore the science behind the warning.[219]

If the legislature is so opposed to taking action on climate change that it would publicly denounce mainstream science just to avoid addressing sea level rise, there is little room for hope that it would ever allow an unlikely judicial decision expanding the state's public trust doctrine in the name of climate stability to stand. Indeed, this appears so obvious that it could conceivably prevent a state court from adopting such an interpretation in the first place, for fear of being overridden by corrective legislation.[220]

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that "[t]he two proposals [out of forty-two] that did become law only commissioned more studies").

217. *See* Act of July 3, 2012, ch. 202, § 2(a), 2012 N.C. Sess. Laws __, __; Patrick Gannon, *Sea-level Rise Bill Becomes Law*, STARNEWS ONLINE (Aug. 1, 2012, 4:49 PM), http://www.starnewsonline.com/article/20120801/ARTICLES/120809970?p=1&tc=pg; Alon Harish, *New Law in North Carolina Bans Latest Scientific Predictions of Sea Level Rise*, ABC NEWS (Aug. 2, 2012), http://abcnews.go.com/US/north-carolina-bans-latest-science-rising-sea-level/story?id=16913782.

218. Press Release, U.S. Geological Survey, Sea Level Rise Accelerating in U.S. Atlantic Coast (June 24, 2012, 1:00 PM), http://www.usgs.gov/newsroom/article.asp?ID=3256&from=rss_home#.T_9TFStYu5M. This has serious consequences for North Carolina coastal communities, as "[o]ngoing accelerated sea level rise in the hotspot will make coastal cities and surrounding areas increasingly vulnerable to flooding by adding to the height that storm surge and breaking waves reach on the coast." *Id.*

219. Ironically, this legislation will inhibit the state's ability to effectively protect and preserve one of the only resources it affirmatively incorporates into its public trust doctrine, the shoreline.

220. *See* Sax, *supra* note 14, at 559 ("[E]ven those courts which are the most active and interventionist in the public trust area are not interested in displacing legislative bodies as the final authorities in setting resource policies.").

C. *The Problem of State Patchworks*

Although the Atmospheric Trust proposal is creative and compelling, it faces serious practical hurdles in a state like North Carolina. This does not mean that it will not work elsewhere, but it does raise a fundamental concern about its overall viability: if every state has its own approach to the public trust doctrine, and each can choose to adopt or reject the Atmospheric Trust proposal, how would this patchwork fit together to solve such a universal—indeed international—pollution problem?

The Atmospheric Trust litigation may succeed in a handful of states whose judges are already inclined to interpret the doctrine expansively, creating pockets of Atmospheric Trusts across the country. Each of these doctrines would develop independently, leading to inconsistent definitions and implementation. This inevitably would lead to conflict between states that have adopted the approach and those that have not, and possibly even between states that have adopted the Atmospheric Trust but have implemented it differently. Under such a scenario, some states will have no legal obligation to rein in greenhouse gas pollution, and the states which do will be unable to control or influence those who do not or even those who have different ways of doing so. Due to the inherently trans-boundary nature of air, the trust asset as defined by one state will inevitably be used and degraded by its neighbors. While this is a common criticism of most efforts to address climate change—and can usually be easily disposed of with the response that incremental progress is better than none—it raises additional concerns in the context of the public trust doctrine. How could citizens in an Atmospheric Trust jurisdiction enforce the terms of the trust—i.e., prove the State has failed to meet its duty to protect the atmosphere from unreasonable greenhouse gas emissions—when the failure is really that of neighboring states who are not so obliged to protect it?[221] Would the government be required to address interstate pollution as part of its obligation to protect the atmosphere for its citizens?[222]

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221. *See* Brown, *supra* note 21, at 446–47 ("[G]iven the tremendous range of interpretations the states have given to the public trust, the doctrine could form the basis of a challenge to damaging practices in one state but not another .... Whether the public trust doctrine can provide a remedy for citizens opposing climate change is definitely a question of geography and jurisdiction.").

222. Professor Wood argues that neighboring states would operate as sovereign co-tenants of the Atmospheric Trust, thus incurring additional fiduciary duties owed to one another. *See* Wood II, *supra* note 16, at 86–87. Under such a theory, states would be liable

Professor Wood suggests that the Atmospheric Trust, as a macro-level approach, would create a liability structure that states cannot simply opt out of once established.[223] Successful litigation in states which are predisposed to adopt the proposal could conceivably have an indirect ripple effect on those which are not. One of the goals of the Atmospheric Trust proposal is to encourage a fundamental shift in how society thinks about the role of government in maintaining the integrity of the global environment. State-based litigation could conceivably find limited success by creating pockets of Atmospheric Trusts throughout the country. Theoretically, if enough states adopt the expanded doctrine, it may create a new kind of "tipping point"—if the idea catches on and becomes contagious, its effect on society's approach to climate action may be felt even in states, such as North Carolina, that would have rejected it if previously given an express opportunity.[224] However, unless such a tipping point is reached, the public policy concerns, practical difficulties, and jurisdictional challenges associated with the Atmospheric Trust will likely limit its viability as a workable solution to the government's failure to address the climate crisis. Promotion of such an expansive application of the public trust doctrine in states like North Carolina may undermine the strength and independence of the doctrine itself, which could in turn undercut existing heightened protection of other important natural resources. This could conceivably lead to degradation of water and coastal resources in the pockets of states which adopt it, strained relationships between states with differing obligations, and an ultimate failure to solve the national atmospheric pollution problem.

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to each other for any waste or permanent impairment of the trust assets. *See id.* However, this co-tenancy arrangement would only be viable if every state adopted the Atmospheric Trust, which this Comment has demonstrated is not probable. A sovereign state simply cannot be liable to another state for failure to meet an obligation it does not have.

223. *See* Wood I, *supra* note 13, at 148.

224. If the Atmospheric Trust theory were to be accepted in a critical mass of states, it may become more realistic to advocate for its adoption in states like North Carolina. But even then, its potential for success may hinge on how the issue is framed. For example, a lawsuit in North Carolina would be more likely to succeed if adoption of the expanded doctrine is cast as a means by which to protect coastal and water resources from the consequences of climate change. North Carolina courts may be more willing to broaden the scope of the state's public trust doctrine if it is more closely tied to the state's common law precedent and constitutional mandate, see *supra* Part I.C-2, and the state legislature may be less inclined to override it if the emphasis is on water resources and a critical mass of neighboring states are moving in that direction.

CONCLUSION

The Atmospheric Trust proposal is truly an intriguing and captivating legal theory, especially for those struggling to identify a silver bullet in the fight to mitigate climate change. But when one digs deeper and takes a hard and honest look at the practical realities of the public trust doctrine, its history, its variation, and the obstacles to its expansion, that silver bullet starts to look a little more gray.

Acknowledging the possibility that the Atmospheric Trust may ultimately prove unable to address the climate crisis, litigation efforts promoting its adoption must run in parallel with other potential avenues which may prove more fruitful, either for particular states or regions, or for the country—and the world—overall. First, the United States Environmental Protection Agency must now regulate greenhouse gas emissions under the Clean Air Act.[225] Public involvement in the rulemaking process may help influence the form and function of the regulations which will be promulgated to implement this mandate.[226] Second, California recently implemented a cap and trade program under its Global Warming Solutions Act, which may provide a useful model for the nation.[227] Third,

225. *See* Massachusetts v. EPA, 549 U.S. 497, 528 (2007) (directing the EPA to make a finding as to whether greenhouse gas emissions "may reasonably be anticipated to endanger public health or welfare," and if so, to regulate them under the Clean Air Act); Coal. for Responsible Regulation v. EPA, 684 F.3d 102, 115, 128 (D.C. Cir. 2012), (upholding the EPA's endangerment finding and its promulgation of the Tailpipe Rule, regulating greenhouse gas emissions from mobile sources under the Clean Air Act and stating that "once the Tailpipe Rule set motor-vehicle emission standards for greenhouse gases, [those gases] became a regulated pollutant under the Act, requiring PSD and Title V greenhouse permitting."), *cert. granted in part sub nom.* Util. Air Regulatory Grp. v. EPA, No. 12-1146, 2013 WL 1155428 (U.S. Oct. 15, 2013).

226. The EPA announced a proposed rule establishing a New Source Performance Standard (NSPS) for new electric generating units (EGUs) in April 2012. *See* Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, 77 Fed. Reg. 22,391 (proposed April 13, 2012). However, the EPA failed to finalize the rule after receiving more than two million public comments. *See* Memorandum of June 25, 2013—Power Sector Carbon Pollution Standards, 78 Fed. Reg. 39,535 (July 1, 2013). President Obama directed the EPA to issue a new proposed rule by September 20, 2013, and to finalize it "in a timely fashion after considering all public comments, as appropriate." *Id.* at 39,535. The EPA must also issue a proposed rule by June 1, 2015, to regulate existing sources under Section 111(d) of the Clean Air Act. *Id.* at 39,536; *see* JAMES E. MCCARTHY, CONG. RESEARCH SERV., R43127, EPA STANDARDS FOR GREENHOUSE GAS EMISSIONS FROM POWER PLANTS: MANY QUESTIONS, SOME ANSWERS 4 (2013).

227. *See* CAL. CODE REGS. tit. 17, §§ 95801–96022 (2012); *see also* Remarks by the President in the State of the Union Address (Feb. 12, 2013), *available at* http://www.whitehouse.gov/the-press-office/2013/02/12/remarks-president-state-union-address ("I urge this Congress to get together, [to] pursue a bipartisan, *market-based solution* to climate change . . . ." (emphasis added)).

involvement of the United States in the international effort to curb greenhouse gas emissions may strengthen now that China has implemented its own cap and trade program for carbon,[228] and as a result of President Obama's pledge to "lead international efforts to address global climate change" as an integral part of the Presidential Climate Action Plan announced in June 2013.[229]

All of these potential avenues for persuading the government to adequately regulate greenhouse gas emissions have merit and are certainly worth pursuing. Important lessons can be gleaned from the practical limitations of the Atmospheric Trust theory, and those lessons should inform the way in which advocates choose to move forward. Proponents of any approach must be cognizant of the risks of pursuing a goal so valiantly, especially when other, more practicable, solutions might be just over the horizon.

If we have not crossed the tipping point yet, we are rapidly approaching it.[230] Time is of the essence in the effort to mitigate climate change, and we cannot allow societal apathy or political inertia to hold us back from doing something before it is too late. But at the same time, it may take a more targeted than blanket approach to accommodate the range of interests involved and the challenges faced by the various states. Those working in jurisdictions like North Carolina, where implementation of the Atmospheric Trust would be an uphill battle at best, must find another way to jumpstart United States involvement in the global effort to address climate change; surely it can be done without jeopardizing vital resources already protected by the public trust. It is time to let go and move on to fight another day.

CAROLINE CRESS**

228. *See China Carbon Debut Defies Emissions Doubters*, BLOOMBERG BUSINESSWEEK (Oct. 12, 2012), http://www.businessweek.com/news/2012-10-11/china-carbon-debut-defies-emission-doubters-energy-markets#p2.

229. THE PRESIDENT'S CLIMATE ACTION PLAN, EXEC. OFFICE OF THE PRESIDENT 17–21 (June 2013), *available at* http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf (discussing bilateral collaborative efforts as well as increased participation in international negotiations) (original in all caps).

230. *See* Wood I, *supra* note 13, at 100.

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