REVIVED AUTHORITY IN ARTICLE I, SECTION 27 OF THE PENNSYLVANIA CONSTITUTION: THE COMMONWEALTH'S NEW AFFIRMATIVE DUTY TO PROTECT THE ATMOSPHERE*

We seared and scarred our once green and pleasant land with mining operations. We polluted our rivers and streams with acid mine drainage, with industrial waste, with sewage. We poisoned our "delicate, pleasant and wholesome" air with the smoke of steel mills and coke ovens and with the fumes of millions of automobiles. We smashed our highways through fertile fields and thriving city neighborhoods. We cut down our trees and erected eyesores along our roads. We uglified our land and we called it "progress." 1

I. Introduction

The planet is warming. This phenomenon is called climate change or global warming. Scientific research indicates that massive quantities of greenhouse gas (GHG) emissions are responsible for the global temperature increase.² GHG emissions primarily come from human activities like industry, electricity

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^{1.} H.R. 154-118, 1st Sess., at 2270 (Pa. 1970) (statement of Rep. Herbert Fineman, Speaker of the Pa. House of Representatives, quoting in part an anonymous 1698 description of Penn's Woods).

^{2.} See, e.g., RAJENDRA K. PACHAURI ET AL., INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: SYNTHESIS REPORT 48 (2015), http://www.ipcc.ch/pdf/assessmentreport/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf [https://perma.cc/S5YL-9YP5] ("It is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the . . . increase in GHG concentrations "); EPA, CLIMATE CHANGE INDICATORS IN THE UNITED STATES 12-16 (4th ed. 2016) [hereinafter EPA, CLIMATE CHANGE INDICATORS], http://www.epa.gov/sites/production/files/2016-08/documents/climate_indicators_2016. pdf [https://perma.cc/8P6H-FXUZ] (describing the role of GHGs in climate change). Research overwhelmingly indicates that the planet is warming and that humans are responsible, but some argue that the global temperature increase is natural or that the planet's temperature has not changed. See, e.g., Karl S. Coplan, Climate Change, Political Truth, and the Marketplace of Ideas, 2012 UTAH L. REV. 545, 600 ("As hard as it is for climate advocates to swallow, climate legislation should be based on the premise that climate change is fairly debatable—not because it is, but because the United States' polity thinks it is."); John Copeland Nagle, The Evangelical Debate over Climate Change, 5 U. ST. THOMAS L.J. 53, 61-66 (2008) (describing evangelical responses to global warming); Coral Davenport & Eric Lipton, How G.O.P. Leaders Came To View Climate Change as Fake Science, N.Y. TIMES (June 3, 2017), http://nyti.ms/2sBwLGv [https://perma.cc/4GRE-XN7X] ("Republican lawmakers were moved along by a campaign carefully crafted by fossil fuel industry players, most notably Charles D. and David H. Koch, the Kansas-based billionaires who run a chain of refineries "); Tom McCarthy, Meet the Republicans in Congress Who Don't Believe Climate Change Is Real, GUARDIAN (London) (Nov. 17, 2014, 2:15 PM), http://www.theguardian.com/environment/2014/nov/17/climate-changedenial-scepticism-republicans-congress [https://perma.cc/2B53-PETU] (finding only eight of 278 congressional Republicans "had not expressed scepticism about climate change").

production, and transportation.³ Global warming is a politically contentious topic⁴ that has—and will continue to have—enormous impacts on humanity.⁵ It implicates a slew of anticipated environmental harms including sea level rise, extreme and erratic weather events, and damaged ecosystems.⁶

The impacts of GHG emissions will eventually become irreversible.⁷ Climate scientists overwhelmingly agree that rising temperatures cause "feedback loops": a process in which heating feeds more heating.⁸ For example, melting polar ice caps release previously trapped methane gas, a particularly potent GHG.⁹ Meanwhile, the once heat-reflecting polar ice caps melt into heat-storing blue water.¹⁰ Scientists predict that, eventually, the heating will reach a "tipping point" at which humans will no longer have any power to stop or slow global warming.¹¹ After we reach the fast-approaching tipping point, the effects of climate change will be irreversible and out of human control.¹² Action is needed sooner rather than later to delay reaching that point.¹³ By implementing

- 5. How Climate Is Changing, NASA, http://climate.nasa.gov/effects/ [https://perma.cc/G3E5-WKV4] (last visited Nov. 1, 2018).
- 6. PACHAURI ET AL., supra note 2, at 49–54; How Climate Is Changing, supra note 5; see also Massachusetts v. EPA, 549 U.S. 497, 521–23 (2007) (stating that the "harms associated with climate change are serious and well recognized" and listing several of those harms); Richard M. McAllister, Compliance with EPA's Clean Power Plan Using Solely Renewable Power Generation in the Western United States, 34 VA. ENVTL. L.J. 347, 350 (2016) (listing various harms associated with climate change).
- 7. Susan Solomon et al., *Irreversible Climate Change Due to Carbon Dioxide Emissions*, 106 PROC. NAT'L ACAD. SCI. U.S., 1704, 1704 (2009).
- 8. See Amy Poehling Eddy, The Climate Petition and the Public Trust Doctrine, MONT. LAW., Aug. 2011, at 6, 6; Solomon et al., supra note 7, at 1704.
- 9. See David Bastviken et al., Freshwater Methane Emissions Offset the Continental Carbon Sink, 331 SCIENCE 50, 50 (2011) (noting that freshwaters can be a "substantial source" of methane that can later reach the atmosphere).
 - 10. Eddy, supra note 8, at 6.

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- 11. See Solomon et al., supra note 7, at 1704; Megan Scudellari, An Unrecognizable Arctic, NASA (July 24, 2013), http://climate.nasa.gov/news/958/an-unrecognizable-arctic/ [https://perma.cc/33H8-2WZE].
- 12. See Solomon et al., supra note 7, at 1704; see also Eddy, supra note 8, at 6; Nathan P. Gillett et al., Ongoing Climate Change Following a Complete Cessation of Carbon Dioxide Emissions, 4 NATURE GEOSCI. 83, 83–84 (2011).
 - 13. See Scudellari, supra note 11. GHGs do not remain localized once emitted into the air; they

^{3.} See EPA, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990–2016 at 2-24 to 2-35 (2018) [hereinafter EPA, INVENTORY OF GHGS], http://www.epa.gov/sites/production/files/2018-01/documents/2018_complete_report.pdf [https://perma.cc/3FDT-T2A5] (noting GHG emissions by economic sector).

^{4.} E.g., Riley E. Dunlap & Aaron M. McCright, A Widening Gap: Republican and Democratic Views on Climate Change, Environment, Aug. 7, 2008, at 26, 26; Julie Kliegman, Jerry Brown Says 'Virtually No Republican' in Washington Accepts Climate Change Science, Politifact (May 18, 2014, 3:49 PM), http://www.politifact.com/truth-o-meter/statements/2014/may/18/jerry-brown/jerry-brown-says-virtually-no-republican-believes-/ [https://perma.cc/8FVY-UKZT] (rating California Governor Jerry Brown's statement that "virtually no Republican . . . accepts the [climate change] science that is virtually unanimous" as "mostly true"); Doyle McManus, Opinion, The GOP Does the Climate Change Dance, L.A. Times (May 10, 2014, 5:00 AM), http://www.latimes.com/opinion/op-ed/la-oe-mcmanus-column-climate-change-republicans-20140511-column.html [https://perma.cc/YF9V-YZ8W].

regulations to limit GHG emissions, a governmental body would incentivize citizens to seek out more environmentally friendly means of living, working, and traveling—ultimately slowing the effects of climate change.¹⁴

Despite efforts by various groups demanding GHG regulation, courts have been reluctant to hold that governments have an affirmative duty to regulate GHG emissions. Our Children's Trust, a nonprofit aiming to secure the legal right to a stable climate for all generations, is one group that has attempted to use the courts to initiate greater GHG regulation. The nonprofit has assisted plaintiffs bringing similar cases in every state. In each case, the plaintiffs alleged that the public trust doctrine protects the atmosphere and that the government has a duty to protect the trust for present and future generations. Around the country, these plaintiffs faced jurisdictional roadblocks, like establishing standing. This Comment does not focus on these roadblocks. Instead, it focuses on new case law that provides an opportunity for Pennsylvanians to use the Pennsylvania Constitution to force the Commonwealth to regulate GHG emissions.

In Pennsylvania, under old law and through individual plaintiffs, Our

spread freely and proceed to trap heat in the atmosphere. See EPA, CLIMATE CHANGE INDICATORS, supra note 2, at 15.

- 14. See, e.g., Massachusetts v. EPA, 549 U.S. 497, 525–26 (discussing that regulation of GHG emissions would slow climate change); Katrina Fischer Kuh, When Government Intrudes: Regulating Individual Behaviors that Harm the Environment, 61 DUKE L. J., 1111, 1122 (2012) (stating that regulatory mandates on behavior may be sufficient to change individuals' environmentally related behaviors and that rigorous enforcement might not be necessary to yield positive results); EU Climate Action, EUR. COMMISSION, http://ec.europa.eu/clima/citizens/eu_en [https://perma.cc/6MDK-7GXH] (last visited Nov. 1, 2018) (discussing the European Union's GHG regulatory scheme and adaptation strategies to prevent dangerous climate change).
- 15. See, e.g., Filippone ex rel. Filippone v. Iowa Dep't of Nat. Res., No. 12-0444, 2013 WL 988627, at *1 (Iowa Ct. App. Mar. 13, 2013) ("We decline to expand the public trust doctrine to include the atmosphere."); Sanders-Reed ex rel. Sanders-Reed v. Martinez, 350 P.3d 1221, 1226–27 (N.M. Ct. App. 2015) (holding, as matter of first impression, that the public trust doctrine does not empower the judicial branch to "independently regulate greenhouse gas emissions in the atmosphere"); see also Rita Ann Cicero, Old Legal Tool Gets New Legs in Children's Climate Change Suits, WESTLAW J. ENVTL, Apr. 10, 2013, at *1, *1 ("[T]he Iowa Court of Appeals [in Filippone] found the state Department of Natural Resources has no duty under the public trust doctrine to make specific rules to limit carbon dioxide emissions."); Mary Christina Wood & Charles W. Woodward, IV, Atmospheric Trust Litigation and the Constitutional Right to a Healthy Climate System: Judicial Recognition at Last, 6 WASH. J. ENVTL. L. & POL'Y 634, 644–45 (2016) (acknowledging that environmental agencies denied petitions for rulemaking in almost every state, very few appeals were filed, and even fewer appeals were successful).
- 16. See, e.g., Filippone, 2013 WL 988627, at *1; Wood & Woodward, supra note 15, at 643–45 (discussing Our Children's Trust's Atmospheric Trust Litigation campaign).
- 17. Wood & Woodward, *supra* note 15, at 643; *see State Legal Actions*, OUR CHILDREN'S TRUST, http://www.ourchildrenstrust.org/state-legal-actions/ [https://perma.cc/T9VS-67ML] (last visited Nov. 1, 2018).
 - 18. Wood & Woodward, supra note 15, at 643.
- 19. See, e.g., Peshlakai ex rel. Butler v. Brewer, No. 1 CA-CV 12-0347, 2013 WL 1091209, at *3, *7–8 (Ariz. Ct. App. Mar. 14, 2013) (holding that youth plaintiffs, who sought a declaration that state officials have an affirmative duty to regulate GHG emissions because the atmosphere is part of the public trust, did not adequately establish standing).

Children's Trust unsuccessfully challenged the governor's alleged failure to create and implement a comprehensive plan to regulate GHG emissions in violation of the Pennsylvania Constitution.²⁰ The plaintiffs brought that case under Article I, Section 27 of the Pennsylvania Constitution; this amendment is known as the Environmental Rights Amendment (ERA) and promises to protect the state's natural resources.²¹ The ERA deems the state's natural resources components of a public trust and commands the Commonwealth, as trustee, to "conserve and maintain them."²² The ERA thus preserves the Commonwealth's natural resources for public use and bestows the duty of protecting these resources upon the Commonwealth.²³

The ERA guides Pennsylvania courts faced with environmental issues.²⁴ It dictates answers to questions like: How much environmental degradation is too much? Do GHG emitters and the convenience they provide warrant permanent destruction of our environment? For decades, Pennsylvania's courts employed an environmental balancing test, which favored development and convenience over environmental preservation when answering such questions.²⁵ But not anymore.²⁶

This Comment explains why—despite the state's adoption of the ERA in 1971 and the ERA's seemingly clear, environmentally friendly language—the ERA did not have teeth until June 2017.²⁷ This Comment begins with a history of the ERA, including its adoption and Pennsylvania courts' early interpretations of it. It then describes the Pennsylvania courts' environmentally destructive interpretation of the ERA and the eventual evolution of that interpretation. Finally, this Comment discusses the potential for using the ERA to compel the Commonwealth to regulate GHG emissions following two monumental 2017 Pennsylvania Supreme Court decisions—*Pennsylvania Environmental Defense*

^{20.} Funk v. Wolf, 144 A.3d 228, 251–52. (Pa. Commw. Ct. 2016), $\it aff'd$, 158 A.3d 642 (Pa. 2017).

^{21.} See PA. CONST. art. I, § 27; Funk, 144 A.3d at 251-52.

^{22.} *Id*.

^{23.} See PA. CONST. art. I, § 27; Kenneth T. Kristl, The Devil Is in the Details: Articulating Practical Principles for Implementing the Duties in Pennsylvania's Environmental Rights Amendment, 28 GEO. ENVTL. L. REV. 589, 601 (2016) [hereinafter Kristl, The Devil Is in the Details] (discussing the meaning of "conserve and maintain" under the ERA based on the plurality decision of Robinson Township v. Commonwealth, 83 A.3d 901 (Pa. 2013)).

^{24.} See generally Kristl, The Devil Is in the Details, supra note 23 (discussing application of the ERA after Robinson Township). See also infra Part II.B.2 for a discussion of the Pennsylvania Supreme Court's application of the ERA in Pennsylvania Environmental Defense Foundation v. Commonwealth, 161 A.3d 911 (Pa. 2017).

^{25.} See Payne v. Kassab (Payne I), 312 A.2d 86, 94 (Pa. Commw. Ct. 1973) (providing a three-part test limiting the state's constitutional duty to protect the environment), abrogated by Pa. Envtl. Def. Found, 161 A.3d 911; see also Richard Rinaldi, Dormant for Decades, the Environmental Rights Amendment of Pennsylvania's Constitution Recently Received a Spark of Life from Robinson Township v. Commonwealth, 24 WIDENER L.J. 435, 440 (2015) ("However, despite [the ERA] clearly reserving an environmental right in the people, its ultimate application as true constitutional law left much to be desired.").

^{26.} Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 930 (Pa. 2017) (rejecting the three-part balancing test set forth in *Payne I*). See also *infra* Part II.B.2 for a discussion of *PEDF*.

^{27.} See Pa. Envtl. Def. Found., 161 A.3d at 930.

Foundation v. Commonwealth²⁸ (PEDF) and William Penn School District v. Pennsylvania Department of Education (William Penn).²⁹

II. OVERVIEW

Before the ERA, legal protection for Pennsylvania's natural resources was primarily limited to the common law public trust doctrine.³⁰ The public trust doctrine establishes that certain natural and cultural resources are for public use and the government must protect and maintain these resources.³¹ Pennsylvania's courts traditionally limited the application of the public trust doctrine to navigable waters.³² Therefore, many of Pennsylvania's natural resources were unprotected from modernization and industrialization.³³

Many recognized the environment's lack of legislative protections and the resulting harms to the state's land, air, and water.³⁴ In 1971 the Commonwealth finally responded by ratifying proposed constitutional amendment article I, section 27—the ERA.³⁵ The ERA states:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and

- 28. 161 A.3d 911 (Pa. 2017).
- 29. 170 A.3d 414 (Pa. 2017). As of November 2018 a group of concerned citizens and lawyers are working on a proposal that would do just this: They hope to urge Pennsylvania, using the ERA, to adopt an economy-wide greenhouse gas auction cap-and-trade program. E-mail from Amy Sinden, James E. Beasley Professor of Law, Temple University Beasley School of Law, to author (Oct. 24, 2018, 11:42 AM) (on file with author). The plan is to file a petition for rulemaking with the Pennsylvania Environmental Quality Board and litigate it through the courts as necessary. *Id.*
- 30. Matthew J. Curran, A River Runs Through It, but Can You? Expanding Pennsylvania's Public Trust Doctrine To Encompass the Modern Trend of Recreational Navigability, 22 WIDENER L.J. 183, 184–85 (2012).
 - 31. Id. at 187-89.
- 32. See id. at 192–94. Navigable waters are protected waters "used, or susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel [were] or [might have been] conducted in the customary modes of trade and travel on water." Cleveland & P. R. Co. v. Pittsburgh Coal Co., 176 A. 7, 9 (Pa. 1935) (quoting The Daniel Ball, 77 U.S. 557, 557 (1870)).
- 33. Cf. Joseph L. Sax, The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention, 68 MICH. L. REV. 471, 556–57 (1970) (discussing generally the limited historical scope of the public trust doctrine).
- 34. See Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 918 (Pa. 2017) (quoting H.R. 154-118, 1st Sess., at 2270 (Pa. 1970) (statement of Rep. Herbert Fineman, Speaker of the Pa. House of Representatives, quoting in part an anonymous 1698 description of Penn's Woods)). See generally John C. Dernbach & Edmund J. Sonnenberg, A Legislative History of Article I, Section 27 of the Constitution of the Commonwealth of Pennsylvania, 24 WIDENER L.J. 181, 188–92 (2015) (collecting numerous legislative documents related to and legislators' speeches in favor of creating legislative protection for the environment).
- 35. See Milton J. Shapp, Gov. of Pa., Proclamation, Constitutional Deputy Secretary of the Commonwealth Amendment—Article I (July 23, 1971), reprinted in Dernbach & Sonnenberg, supra note 34, at 281–82; see also Dernbach & Sonnenberg, supra note 34, at 184–86.

maintain them for the benefit of all the people.³⁶

Pennsylvania's Constitution is notable because the ERA bestows specific environmental rights to all state citizens.³⁷ The ERA's novelty caused confusion after its enactment because there was no precedential state doctrine on which to base its implementation and there was no federal equivalent to look to for guidance.³⁸ The ERA's enactment forced the Commonwealth, as trustee, to balance economic development against the potential for environmental degradation.³⁹ If the Commonwealth interpreted the text of the ERA literally and absolutely, the amendment would inevitably burden—or even preclude—economic development in the state.⁴⁰ To stray from a literal reading, however, left an essential question: How much environmental degradation is too much? In the following parts, this Comment describes the three-part balancing test developed by Pennsylvania courts to adjudicate ERA claims, introduces the cases that rejected that test, articulates the Pennsylvania Supreme Court's new interpretation of the ERA in *PEDF*, and explains Pennsylvania's standing and political question doctrines.

A. First Applications of the ERA: Commonwealth v. National Gettysburg Battlefield Tower, Inc. and Payne v. Kassab

Just two years after the ERA's adoption, *Commonwealth v. National Gettysburg Battlefield Tower*, *Inc.* (*Gettysburg Tower*)⁴¹ started to strip the ERA of almost any power to protect the state's natural resources.⁴² In *Gettysburg Tower*, the Commonwealth invoked the ERA against a private party when it sought to enjoin the construction of a 307-foot tower in an area close to a historic site in Gettysburg.⁴³ A plurality of the Pennsylvania Supreme Court affirmed the

^{36.} PA. CONST. art. I, § 27.

^{37.} See id.; see also Pa. Envtl. Def. Found., 161 A.3d at 918 ("The decision to affirm the people's environmental rights in a Declaration or Bill of Rights, alongside political rights, is relatively rare in American constitutional law."). Pennsylvania is one of only a handful of state constitutions that contains such a provision. See id.

^{38.} See Pa. Envtl. Def. Found., 161 A.3d at 918; Steven T. Miano & Jessica R. O'Neill, Pennsylvania's Environmental Rights Amendment Given New Life, 32 WESTLAW J. TOXIC TORTS 12, *2 (2014).

^{39.} See, e.g., Payne I, 312 A.2d 86, 94 (Pa. Commw. Ct. 1973) (interpreting the ERA as requiring decisionmakers to engage in "the constant and difficult task of weighing conflicting environmental and social concerns in arriving at a course of action that will be expedient as well as reflective of the high priority which constitutionally has been placed on the conservation of our natural, scenic, esthetic and historical resources"), abrogated by Pa. Envtl. Def. Found., 161 A.3d 911.

^{40.} See id. (stating that an "absolute interpretation" of the ERA would make it "difficult to imagine any activity" allowable under the provision).

^{41. 311} A.2d 588 (Pa. 1973).

^{42.} See John C. Dernbach, Taking the Pennsylvania Constitution Seriously When It Protects the Environment: Part I—An Interpretative Framework for Article I, Section 27, 103 DICK. L. REV. 693, 706–08 (1999) [hereinafter Dernbach, Part I].

^{43.} Gettysburg Tower, 311 A.2d at 589–90. Cases can be brought under the ERA in two ways. The Commonwealth can bring a claim against a private party alleging that the action of that party will damage the trust. See id. at 592 (noting that the ERA expanded the powers of the Pennsylvania government to act against individuals). Alternatively, individual citizen plaintiffs can invoke the ERA

trial court's finding that the Commonwealth was undeserving of equitable relief because it "failed to show by clear and convincing proof that the natural, historic, scenic, and aesthetic values of the Gettysburg area [would] be irreparably harmed by the erection of the proposed tower at the proposed site." Although the two-justice opinion of the court concluded that the Commonwealth could not bring an action under the ERA without supplemental legislation specifying which resources were protected by the amendment and explaining the procedures necessary to protect them, four out of seven justices concluded that the ERA was self-executing. Finally, the court did not establish that the Commonwealth had an affirmative duty to protect the environment from private party action under the ERA.

One month after *Gettysburg Tower*, the Commonwealth Court continued to strip the ERA of its power to protect Pennsylvania's natural resources in *Payne v. Kassab* (*Payne I*).⁴⁷ The Commonwealth Court interpreted the ERA to require application of a three-part balancing test.⁴⁸ In *Payne I*, the Pennsylvania Department of Transportation (PennDOT) approved a street-widening project requiring the removal of about one half-acre from a park in Wilkes-Barre, Pennsylvania.⁴⁹ At stake were twenty-three large trees and a pedestrian sidewalk in River Commons Park, considered an area of local historical significance.⁵⁰ The project's environmental impact finding stated that there was no feasible alternative for the project.⁵¹ Plaintiffs, comprised of citizens and college students, argued that the park should be protected by the ERA as a historical area and brought an action to enjoin the project.⁵²

The Commonwealth Court stated that reading the ERA in absolute terms would end all development in any area with historical significance.⁵³ It reasoned

against the Commonwealth by claiming that the Commonwealth is not fulfilling its fiduciary duties to protect the trust. *See* Payne v. Kassab (*Payne II*), 361 A.2d 263, 272–73 (Pa. 1976) (validating an action brought by citizens against municipal and state officials to enjoin a street-widening project).

- 44. *Gettysburg Tower*, 311 A.2d at 589–90, 595 (quoting affirmatively the trial court judge). *Gettysburg Tower* was a plurality opinion where two judges joined the opinion of the court, two filed a concurrence, one concurred in the result, and two filed a dissenting opinion. *See id.* at 595.
- 45. *Id.* at 593–95; *see* Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 936 n.28 (Pa. 2017) (discussing *Gettysburg Tower* and noting that "in fact only two justices specifically found it to require legislative action"); *see also* John C. Dernbach, *Taking the Pennsylvania Constitution Seriously When It Protects the Environment: Part II—Environmental Rights and Public Trust*, 104 DICK. L. REV. 97, 104–09 (1999) (arguing that four out of the seven justices in *Gettysburg Tower* concluded the ERA was self-executing).
- 46. See generally Gettysburg Tower, 311 A.2d 588 (failing to discuss whether the ERA imposed an affirmative duty on the Commonwealth to protect the environment).
 - 47. 312 A.2d 86, 94 (Pa. Commw. Ct. 1973), abrogated by Pa. Envtl. Def. Found., 161 A.3d 911.
 - 48. Payne I, 312 A.2d at 94.
 - 49. Id. at 88.
 - 50. Id. at 90–93.
 - 51. Id. at 93.
 - 52. Id. at 88, 93-94.
- 53. *Id.* at 94 ("[I]t is difficult to conceive of any human activity that does not in some degree impair the natural, scenic and esthetic values of any environment. If the standard of injury to historic values is to be that expressed by the Commonwealth's witnesses as an 'intrusion' or 'distraction,' it

that "[j]udicial review of the endless decisions that [would] result from such a balancing of environmental and social concerns must be realistic and not merely legalistic."⁵⁴ It then adopted a three-part balancing test (the *Payne* test) to determine if an action violated the ERA:

(1) Was there compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources? (2) Does the record demonstrate a reasonable effort to reduce the environmental incursion to a minimum? (3) Does the environmental harm which will result from the challenged decision or action so clearly outweigh the benefits to be derived therefrom that to proceed further would be an abuse of discretion?⁵⁵

When the court applied this test, it emphasized that PennDOT had taken all necessary steps in preparing this project: it consulted all relevant departments regarding the project's location, design, construction, and reconstruction; held the required public hearing; and met with members of the public to discuss the project and answer questions. For It planned to reduce adverse effects by replacing the twenty-three removed trees with twenty-eight new trees. The court deferred to PennDOT's finding and agreed that the benefits of the project outweighed the environmental costs.

In *Payne II*, the Pennsylvania Supreme Court affirmed the Commonwealth Court's decision.⁵⁹ The Supreme Court, while refusing to say outright that the ERA was self-executing,⁶⁰ held that the ERA does not require supporting legislation to have authority.⁶¹ *Payne II* did not disturb *Payne I'*s conclusion that the plaintiffs, "as part of the public and as owners of property fronting the Common,"⁶² had standing to object to the project.⁶³ These were small victories,

becomes difficult to imagine any activity in the vicinity of Gettysburg which would not unconstitutionally harm its historic values." (quoting Commonwealth v. Nat'l Gettysburg Battlefield Tower, Inc., 302 A.2d 886, 895 (Pa. Commw. Ct. 1973))).

- 54. *Id*.
- 55. Id.
- 56. Id. at 94–95.
- 57. Id. at 92.
- 58. *Id.* at 96.
- 59. Payne II, 361 A.2d 263, 273 (Pa. 1976).
- 60. *Id.* at 272 ("We see no need, in this case, to explore the difficult terrain of whether the amendment is or is not 'self-executing'."). Self-executing means that under the ERA, "the people [of Pennsylvania] have a right to clean air, pure water, and the preservation of certain environmental values, regardless of whether the legislature has enacted supporting legislation." Dernbach, *Part I, supra* note 42, at 705–06.
- 61. Payne II, 361 A.2d at 272 ("There can be no question that the Amendment itself declares and creates a public trust of public natural resources for the benefit of all the people (including future generations as yet unborn) and that the Commonwealth is made the trustee of said resources, commanded to conserve and maintain them. No implementing legislation is needed to enunciate these broad purposes and establish these relationships; the amendment does so by its own *ipse dixit.*").
 - 62. Payne I, 312 A.2d at 97.
- 63. See Payne II, 361 A.2d at 273 n.21 ("Appellees do not dispute the Commonwealth Court's conclusion that members of the Wilkes-Barre public who use the Common and whose rights under Article I, § 27 are allegedly adversely affected... have standing to proceed with their claim. In this

however, when juxtaposed with $Payne\ II$'s failure to repudiate the restrictive three-part test articulated in $Payne\ I.^{64}$

As a result, *Payne I* "bec[ame], for the Commonwealth Court, the benchmark for Section 27 decisions in lieu of the constitutional text,"⁶⁵ which significantly minimized the impact of the ERA.⁶⁶ In the years following the *Payne* decisions, few environmental claims prevailed under the ERA.⁶⁷ A 2015 analysis of Pennsylvania courts' and administrative agencies' applications of the *Payne* test revealed that twenty-three of twenty-four reported lower court cases and forty-seven of fifty-five reported administrative agency decisions held that there were no ERA violations.⁶⁸ Despite its limiting effect on environmental protection and the fact that it was never explicitly embraced by the Pennsylvania Supreme Court,⁶⁹ the *Payne* test served as the Pennsylvania courts' test for ERA violations for four decades.⁷⁰

B. Reinterpreting the ERA

1. Reevaluating the *Payne* Test: *Robinson Township v. Commonwealth*

In 2013, the Pennsylvania Supreme Court finally explicitly called *Payne* into question in *Robinson Township v. Commonwealth*.⁷¹ Chief Justice Castille delivered a plurality opinion that favored a more literal interpretation of the ERA.⁷² The case involved municipalities and individuals challenging the constitutionality of particular sections of Act 13 under the ERA.⁷³ The Act

case we have no occasion to disagree with that proposition.").

- 64. See id. at 273 n.23 (noting that the Commonwealth Court "fashion[ed] a three-part test to determine whether [the ERA] has or has not been observed" without explicitly accepting the test); Kenneth T. Kristl, It Only Hurts When I Use It: The Payne Test and Pennsylvania's Environmental Rights Amendment, 46 ENVTL. L. REP. NEWS & ANALYSIS 10594, 10595 (2016) [hereinafter Kristl, The Payne Test] ("Critical examination of the [Payne] test shows fundamental problems overall and within each of its three parts. The test fails to recognize the two unique sets of § 27 rights, is vague, and is in many ways inconsistent with the text of § 27 itself....").
 - 65. Robinson Twp. v. Commonwealth, 83 A.3d 901, 966.
- 66. See Payne II, 361 A.2d at 273 (holding that the imminent violation of a protected value under the trusteeship of the state does not create an automatic right to relief); Kristl, *The* Payne *Test*, supra note 64, at 10595 ("The effect of the test's application was the consistent, near-universal rejection of § 27 claims.").
- 67. John C. Dernbach & Marc Prokopchak, Recognition of Environmental Rights for Pennsylvania Citizens: A Tribute to Chief Justice Castille, 53 Duq. L. Rev. 335, 344–51, 360–69 (2015) (providing an analysis of Pennsylvania court and administrative agency decisions after Payne I).
 - 68. Id. at 344, 348.
- 69. Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 927 (Pa. 2017) ("Notably, [the Pennsylvania Supreme Court] affirmed the judgment in *Payne I* without adopting the three-part test, instead concluding that the 'elaborate safeguards' of the challenged statute provided adequate protections such that breach of the trust created by Section 27 would not occur.").
 - 70. Id. at 344.
 - 71. 83 A.3d 901, 966-67 (Pa. 2013).
- 72. See Robinson Twp., 83 A.3d at 945–46; John C. Dernbach, The Potential Meanings of a Constitutional Public Trust, 45 ENVTL. L. 463, 465 (2015) [hereinafter Dernbach, Potential Meanings].
 - 73. See Robinson Twp., 83 A.3d at 914-16.

loosened oil and gas regulations in Pennsylvania.⁷⁴ The *Robinson Township* "landmark decision" explained—at great length—how the provisions violated the ERA.⁷⁵ In doing so, the plurality presented a new, more environmentally friendly interpretation of the amendment.⁷⁶ The plurality interpreted the ERA by breaking it into its three distinct clauses.

The ERA's first clause establishes the right of citizens "to clean air, pure water," and environmental preservation.⁷⁷ The plurality called the first clause "prohibitory": rather than imposing an affirmative duty in the government to protect the state's resources, it obligates the government to "refrain from unduly infringing upon or violating" the people's enumerated environmental rights.⁷⁸

The ERA's second clause establishes that the state's natural resources are part of a public trust that belongs to all citizens. What constitutes "public natural resources" under the ERA is unclear, but the plurality loosely defined them as "state-owned lands, waterways, and mineral reserves" and "resources that implicate the public interest, such as ambient air, surface and ground water, wild flora, and fauna (including fish) that are outside the scope of purely private property." The plurality believed the drafters of the ERA intentionally "left unqualified the phrase public natural resources" hoping to allow the provision to be "amenable to change over time to conform, for example, with the development of related legal and societal concerns." The ERA's second clause also dedicates the trust to living and future generations, which the plurality emphasized.

The third clause of the ERA provides that public natural resources are part of a trust.⁸⁴ Pennsylvanians are the beneficiaries of this trust, and the Commonwealth is the trustee.⁸⁵ As trustee, the Commonwealth owes duties,

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^{74.} See id.

^{75.} Dernbach, *Potential Meanings*, *supra* note 72, at 465. *See generally Robinson Twp.*, 83 A.3d 901 (providing a discussion totaling over 120 pages).

^{76.} Robinson Twp., 83 A.3d at 967 (rejecting the Commonwealth Court's Payne test as being inappropriately limited in its ability to ensure environmental protections in the Commonwealth).

^{77.} PA. CONST. art. I, § 27, cl. 1 ("The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment.").

^{78.} Robinson Twp., 83 A.3d at 951-52.

^{79.} See PA. CONST. art. I, § 27, cl. 2 ("Pennsylvania's public natural resources are the common property of all the people, including generations yet to come."); Robinson Twp., 83 A.3d at 954–55.

^{80.} Robinson Twp., 83 A.3d at 955.

^{81.} Id.

^{82.} PA. CONST. art. I, § 27, cl. 2.

^{83.} Robinson Twp., 83 A.3d at 958 ("[T]rusteeship for benefit of state's people implies legislative duty 'to enact such laws as will best preserve the subject of the trust, and secure its beneficial use in the future to the people of the state." (quoting Geer v. Connecticut, 161 U.S. 519, 534 (1896))).

^{84.} PA. CONST. art. I, § 27, cl. 3 ("As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."); *Robinson Twp.*, 83 A.3d at 955–56 (citing *Payne II*, 361 A.2d 263, 272 (Pa. 1976)).

^{85.} PA. CONST. art. I, § 27, cl. 3; *Robinson Twp.*, 83 A.3d at 955–56 (citing *Payne II*, 361 A.2d at 272).

"both negative (*i.e.*, prohibitory) and affirmative (*i.e.*, implicating enactment of legislation and regulations)" to the trust's beneficiaries.⁸⁶ Under the plurality's interpretation, the ERA obligates the state to "conserve and maintain" these natural resources.⁸⁷

The ERA, according to the plurality, applies to private-party actions as well as governmental actions causing environmental harm: As trustee of these resources, the state has a duty to "adequately restrain[] actions of private parties likely to cause harm to protected aspects of our environment." The ERA mandates that the Commonwealth—via all existing branches and levels of government "act affirmatively to protect the environment." Finally, according to the *Robinson Township* plurality, the people have the right to challenge the state's performance as trustee—they have the right to "seek to enforce the [Commonwealth's] obligations."

Tying the clauses together, the plurality stated that the ERA "does not call for a stagnant landscape[,] . . . the derailment of economic or social development[,] . . . [or] a sacrifice of other fundamental values." Instead, the ERA serves to protect public natural resources "[b]y calling for the 'preservation' of these broad environmental values" and "protect[ing] the people from governmental action that unreasonably causes actual or likely deterioration of these features." It is here that the court first articulated a protection from unreasonable degradation standard—a significant step away from the *Payne* test. 194

The plurality applied its new ERA interpretation and concluded that the "development of the natural gas industry . . . unquestionably has and will have a lasting, and undeniably detrimental, impact on the quality of these core aspects of Pennsylvania's environment, which are part of the public trust."⁹⁵ The *Robinson Township* plurality opinion "reinvigorated the Amendment,"⁹⁶ but it did not overrule the *Payne* test.⁹⁷ The plurality merely criticized the *Payne*

- 86. Robinson Twp., 83 A.3d at 955-56.
- 87. Id. at 957 (quoting PA. CONST. art. I, § 27, cl. 3).
- 88. Id. at 979.
- 89. Id. at 977.
- 90. Id. at 958 (citing Geer v. Connecticut, 161 U.S. 519, 534 (1896)).
- 91. *Id.* at 974 (first citing Commonwealth *ex rel*. Logan v. Hiltner, 161 A. 323, 325 (Pa. 1932); then citing *Payne II*, 361 A.2d 263, 272 (Pa. 1976)).
 - 92. Id. at 953.
 - 93. Id. (quoting PA. CONST. art. I, § 27, cl. 1).
- 94. *Id.* at 954 ("But, to achieve recognition of the environmental rights enumerated in the first clause of [the ERA] as 'inviolate' necessarily implies that economic development cannot take place at the expense of *an unreasonable degradation of the environment.*" (emphasis added)); *see Payne I*, 312 A.2d 86, 94 (Pa. Commw. Ct. 1973) (providing the three-step test used prior to the protection from unreasonable degradation standard), *abrogated by Pa. Envtl. Def. Found. v. Commonwealth*, 161 A.3d 911 (Pa. 2017).
 - 95. Robinson Twp., 83 A.3d at 975.
 - 96. Kristl, The Devil Is in the Details, supra note 23, at 589.
- 97. See Robinson Twp., 83 A.3d at 966–67; Kristl, The Devil Is in the Details, supra note 23, at 621.

decisions and deemed the test inappropriate for the facts of that particular case. ⁹⁸ Thus, *Robinson Township* did not change the standard to be used by Pennsylvania's courts moving forward. ⁹⁹ Its environmentally friendly language, however, raised new questions regarding the Commonwealth's affirmative duty to protect the state's natural resources. ¹⁰⁰ Was the *Payne* test the correct tool for evaluating cases brought under the ERA following Justice Castille's lengthy, environmentally friendly plurality? Or should the courts use some new standard? Because *Robinson Township* did not overrule the *Payne* decisions, Pennsylvania courts continued to apply the *Payne* test. ¹⁰¹

2. Overruling the *Payne* Test: *Pennsylvania Environmental Defense Foundation v. Commonwealth (PEDF)*

On June 20, 2017, the Pennsylvania Supreme Court, quoting heavily from the *Robinson Township* plurality, overruled the *Payne I* test in *PEDF*.¹⁰² In its place, the *PEDF* court presented a new interpretation of the ERA rooted in the text of the ERA itself.¹⁰³ Just like the *Robinson Township* plurality, the *PEDF* majority individually analyzed each of the ERA's three distinct clauses.¹⁰⁴ The court's interpretation established that (1) the Commonwealth has a duty to avoid implementing laws that will "unreasonably impair" Pennsylvanian's rights under the ERA; (2) current and future citizens of Pennsylvania are beneficiaries of the trust, which contains the state's natural resources; and (3) the Commonwealth, as trustee, must act affirmatively to protect the trust and abide by public and private trust laws in carrying out its fiduciary duties.¹⁰⁵ *PEDF*'s new interpretation of the ERA signified the court's recognition of a need for greater environmental protections within the Commonwealth.

^{98.} Robinson Twp., 83 A.3d at 967 ("[W]e conclude that the non-textual Article I, Section 27 test established in Payne and its progeny is inappropriate to determine matters outside the narrowest category of cases, i.e., those cases in which a challenge is premised simply upon an alleged failure to comply with statutory standards enacted to advance Section 27 interests."); see also Kristl, The Devil Is in the Details, supra note 23, at 621 ("Despite this criticism, the Commonwealth Court has continued to apply the Payne test post-Robinson Township....").

^{99.} See Funk v. Wolf, 144 A.3d 228, 234 n.2 (Pa. Commw. Ct. 2016), aff d, 158 A.3d 642 (Pa. 2017) ("Because [that] portion of the lead opinion in Robinson Township did not garner a majority of the Supreme Court, the plurality's rejection of the analytical framework discussed in Payne and its progeny is not binding precedent.").

^{100.} Richard Rinaldi, Dormant for Decades, the Environmental Rights Amendment of Pennsylvania's Constitution Recently Received a Spark of Life from Robinson Township v. Commonwealth, 24 WIDENER L.J. 435, 454 (2015) (noting that Robinson Township was not a majority decision, but that it would "likely" have significant impact upon lower court decisions moving forward).

^{101.} See, e.g., Funk, 144 A.3d at 233–35 (articulating the appropriate standard to review a claim under the ERA by citing the *Payne* decisions),; see also Kristl, *The Devil Is in the Details, supra* note 23, at 621 ("Despite this criticism, the Commonwealth Court has continued to apply the *Payne* test post-*Robinson Township*....").

^{102.} Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 930 (Pa. 2017).

^{103.} *Id*.

^{104.} Id. at 930-35.

^{105.} Id. at 931-33; see PA. CONST. art. I, § 27.

In *PEDF*, the court addressed allocation of proceeds generated from the sale of oil and gas extracted from state lands. ¹⁰⁶ The Oil and Gas Lease Fund Act of 1955 required funds collected from leasing state lands to be reinvested into conservation of the state's natural resources. ¹⁰⁷ Over the following decades, however, the General Assembly rerouted rents and royalties intended for the Lease Fund from the Department of Conservation and Natural Resources (DCNR) to the General Assembly itself. ¹⁰⁸ During the 2009–10 budget process, for example, the General Assembly added a section to its Fiscal Code that limited DCNR's receipt of funds generated from Marcellus Shale leasing to a fixed maximum amount. ¹⁰⁹ Marcellus Shale drilling offered a new method to extract natural gas, and it brought significant increases in the funds flowing from state land leases. ¹¹⁰ The General Assembly's new section limited allocation to DCNR's Lease Fund to \$50 million. ¹¹¹ Act 13 of 2012 required additional transfers away from the Lease Fund. ¹¹² By 2015, the Lease Fund received significantly less funding than initially intended. ¹¹³

In *PEDF*, the Pennsylvania Environmental Defense Foundation, a nonprofit environmental organization, brought a declaratory judgment action against the Commonwealth, challenging budgeting decisions made between 2009 and 2015 as unconstitutional violations of the ERA. The court addressed, inter alia, the following issues: First, did the new Fiscal Code sections, which limited Lease Fund allocations from Marcellus Shale leasing to \$50 million, violate the ERA? Second, did the General Assembly's general transfers and appropriations from the Lease Fund violate the ERA?

The Pennsylvania Supreme Court answered the questions in the affirmative: the noted sections of the Fiscal Code and the General Assembly's subsequent taking from the Lease Fund violated the ERA.¹¹⁵ The court agreed with PEDF

^{106.} Pa. Envtl. Def. Found., 161 A.3d at 924-25.

^{107. 71} PA. STAT. AND CONS. STAT. ANN. § 1331 (repealed 2017); see also Pa. Envtl. Def. Found., 161 A.3d at 919. The Oil and Gas Lease Fund Act of 1955 required that "[a]ll rents and royalties from oil and gas leases" of state lands be deposited in the "Oil and Gas Lease Fund," which was to be "exclusively used for conservation, recreation, dams, or flood control or to match any Federal grants which may be made for any of the aforementioned purposes." Tit. 71, § 1331.

^{108.} Pa. Envtl. Def. Found., 161 A.3d at 920-25.

^{109.} *Id.* at 921. The Marcellus Shale is a rock formation that underlies much of Pennsylvania and portions of New York and West Virginia. Alan Bailey, *Appalachia to the Rescue*, PETROLEUM NEWS (Jan. 27, 2008), http://www.petroleumnews.com/pntruncate/246893563.shtml [https://perma.cc/XU58-TVVH]. The layer is the deepest in the Appalachian basin and is believed to hold trillions of cubic feet of natural gas. *Id.*

^{110.} Pa. Envtl. Def. Found., 161 A.3d at 921.

^{111.} *Id*.

^{112.} Act of Feb. 14, 2012, No. 2012-13, Ch. 25, 2012 Pa. Laws 87, 106, invalidated by Robinson Twp. v. Commonwealth, 83 A.3d 901 (Pa. 2013); see also Nathaniel I. Holland, Pennsylvania Oil and Gas Update, 19 Tex. Wesleyan L. Rev. 539, 540 (2013) (discussing how the Marcellus Legacy Fund distributes funds throughout Pennsylvania to finance various environmental and infrastructure projects).

^{113.} See Pa. Envtl. Def. Found., 161 A.3d at 923.

^{114.} Id. at 925.

^{115.} Id. at 938-39.

and stated that money generated from leasing state lands must remain in the corpus of the trust. That is, the funds should be used solely to conserve and maintain the state's natural resources. The *PEDF* court further stated that the trustee duties belong to the entire Commonwealth, not just DCNR. Finally, the Court affirmed that the ERA is self-executing.

In addition to those decisions, the *PEDF* court reached critical conclusions regarding the way the ERA should be interpreted. 120 The court reached these latter conclusions by breaking down the ERA and analyzing each of its clauses. 121 Justice Donohue, writing for the majority, adopted (in large sections) the ERA interpretation presented in Justice Castille's Robinson Township plurality opinion. 122 The ERA's first clause is "a prohibitory clause declaring the right of citizens to clean air and pure water, and to the preservation of natural, scenic, historic and esthetic values of the environment."123 This first clause prohibits the Commonwealth from acting in a way that unreasonably impairs citizens' rights to a clean environment. 124 The second clause of the ERA bestows ownership of the state's "public natural resources" upon Pennsylvania's citizens. 125 This includes future generations. 126 The third and final clause of the ERA establishes a public trust, consisting of the state's natural resources; the Commonwealth is the trustee and the people are the beneficiaries.¹²⁷ Justice Donohue approvingly quoted from Robinson Township, confirming that the Commonwealth has a duty to protect the resources in trust: "The plain meaning of the terms conserve and maintain [as used in the ERA] implicates a duty to

^{116.} Id.

^{117.} *Id.* at 939 ("[T]he legislature violates Section 27 when it diverts proceeds from oil and gas development to a non-trust purpose without exercising its fiduciary duties as trustee." (emphasis omitted)).

^{118.} *Id*.

^{119.} *Id.* at 937. In *Payne II*, the Pennsylvania Supreme Court had already indirectly stated that the ERA was self-executing. *See Payne II*, 361 A.2d 263, 272 (Pa. 1976) ("There can be no question that the Amendment itself declares and creates a public trust of public natural resources for the benefit of all the people (including future generations as yet unborn) and that the Commonwealth is made the trustee of said resources, commanded to conserve and maintain them. No implementing legislation is needed to enunciate these broad purposes and establish these relationships; the amendment does so by its own *ipse dixit.*").

^{120.} Pa. Envtl. Def. Found., 161 A.3d at 930-36.

^{121.} *Id.* at 930–32.

^{122.} *Id.* at 930 ("This is not the first time we have been called upon to address the rights and obligations set forth in the Environmental Rights Amendment. We did so in *Robinson Twp.*, and we rely here upon the statement of basic principles thoughtfully developed in that plurality opinion.").

^{123.} Id. at 931 (citing Robinson Twp. v. Commonwealth, 83 A.3d 901, 956–57 (Pa. 2013)).

^{124.} Pa. Envtl. Def. Found., 161 A.3d at 931 (citing Robinson Twp., 83 A.3d at 951); see also PA. CONST. art. I, § 27, cl. 1.

^{125.} Pa. Envtl. Def. Found., 161 A.3d at 931 (citing Robinson Twp., 83 A.3d at 954); see also PA. CONST. art. I, § 27, cl. 2.

^{126.} Pa. Envtl. Def. Found., 161 A.3d at 931 (citing Robinson Twp., 83 A.3d at 954); see also PA. CONST. art. I, § 27, cl. 2.

^{127.} Pa. Envtl. Def. Found., 161 A.3d at 931–32 (citing Robinson Twp., 83 A.3d at 955–56); see also PA. CONST. art. I, § 27, cl. 3.

prevent *and remedy* the degradation, diminution, or depletion of [Pennsylvania's] public natural resources."¹²⁸ The Commonwealth's duties, therefore, include prohibiting environmentally harmful laws as well as implementing environmentally protective ones.¹²⁹

The *PEDF* court went one step further than breaking down the ERA into its three distinct clauses: it superimposed private trust law concepts onto the ERA. Accordingly, the Commonwealth (as a fiduciary) must treat the natural resources "with prudence, loyalty, and impartiality." First, practicing prudence requires the Commonwealth to "exercise such care and skill as a man of ordinary prudence would exercise in dealing with his own property." Second, the "duty of loyalty imposes an obligation to manage the corpus of the trust [(i.e., the natural resources)] so as to accomplish the trust's purposes for the benefit of the trust's beneficiaries." Finally, the "duty of impartiality requires the trustee to manage the trust so as to give all of the beneficiaries due regard for their respective interests in light of the purposes of the trust." Under the *PEDF* court's private trust law approach, the Commonwealth must treat the state's natural resources with a legally mandated degree of care, prioritize public benefit, and consider all state citizens' interests in the natural resources equally.

Combining the three clauses, the *PEDF* court explained that the Commonwealth had both prohibitory and affirmative duties to protect the corpus of the trust for the beneficiaries' benefit. The *PEDF* court explained these "two basic duties" as follows: First, the Commonwealth has a duty to "prohibit the degradation, diminution, and depletion of [the Commonwealth's] public natural resources, whether these harms might result from direct state action or from the actions of private parties." Second, the Commonwealth must act affirmatively via legislative action to protect the environment." Whether the Commonwealth is prohibiting an action that would cause unreasonable environmental degradation or implementing legislation to save the environment from unreasonable degradation, the Commonwealth has an overarching duty, as trustee, to practice prudence, loyalty, and impartiality when

^{128.} Pa. Envtl. Def. Found., 161 A.3d at 932 (emphasis added) (quoting Robinson Twp., 83 A.3d at 956–57).

^{129.} See id. at 933.

^{130.} See id. at 932–33 (stating that the Commonwealth, as trustee, could not act as a mere proprietor and must practice "prudence, loyalty, and impartiality" in protecting the trust (quoting *Robinson Twp.*, 83 A.3d at 956–57)).

^{131.} Id. at 932 (quoting Robinson Twp., 83 A.3d at 956-57).

^{132.} Id. (quoting In re Mendenhall, 398 A.2d 951, 953 (Pa. 1979)).

^{133.} *Id.* (first citing Metzger v. Lehigh Valley Tr. & Safe Deposit Co., 69 A. 1037, 1038 (Pa. 1908); then citing *In re* Hartje's Estate, 28 A.2d 908, 910 (Pa. 1942)).

^{134.} Id. at 933 (first citing 20 PA. STAT. AND CONS. STAT. ANN § 7773 (West 2018); then citing Estate of Sewell, 409 A.2d 401, 402 (Pa. 1979)).

^{135.} Id. at 932-33.

^{136.} Id. at 933 (citing Robinson Twp., 83 A.3d at 958).

^{137.} *Id.* (citing *Robinson Twp.*, 83 A.3d at 957).

^{138.} Id. (citing Robinson Twp., 83 A.3d at 958).

making decisions regarding the trust.¹³⁹ The ERA imposes all of these duties upon the Commonwealth.¹⁴⁰

The court then applied its new standard to the facts. The court determined that the new Fiscal Code sections, limiting Lease Fund allocations from Marcellus Shale leasing to \$50 million, violated the ERA. He are regarding this section of Act 13, the Commonwealth circumvented existing rules regarding the Lease Fund and allowed incoming lease funds to be used for purposes other than conserving and maintaining the state's natural resources. He court held that the sections "plainly ignore the Commonwealth's constitutionally imposed fiduciary duty to manage the corpus of the environmental public trust for the benefit of the people to accomplish its purpose—conserving and maintaining the corpus by, inter alia, preventing and remedying the degradation, diminution and depletion of our public natural resources." He

Second, the court held that the General Assembly's other Lease Fund decisions, regarding general transfers and appropriations from the fund, violated the ERA. The court stated, "[T]he legislature violates Section 27 when it diverts proceeds from oil and gas development to a non-trust purpose without exercising its fiduciary duties as trustee." The Commonwealth's "duties as trustee" require it to protect the corpus of the trust from unreasonable impairment and to act with impartiality, loyalty, and prudence. In this case, the Commonwealth took money generated from drilling operations and allotted those funds for non-environmental projects. In doing so, the Commonwealth failed to treat the state's natural resources with the legally mandated degree of care, make public benefit the priority, and consider all state citizens' interests in the natural resources equally. By taking funds and using them for purposes other than environmental conservation or maintenance, the Commonwealth acted unconstitutionally. In the control of the commonwealth acted unconstitutionally.

The *PEDF* court replaced the *Payne* test with the broad ERA interpretation advocated by the *Robinson Township* plurality. ¹⁵⁰ The court's new interpretation of the ERA requires courts to consider private trust law concepts as well as the unreasonableness of a particular action against the state's natural resource. ¹⁵¹ By adopting this new standard, ¹⁵² the *PEDF* opinion opened the

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139. See id. at 932 (citing Robinson Twp., 83 A.3d at 956-57).
140. See id.
141.
     Id. at 939.
142.
     Id.
143.
     Id. at 938 (citing Robinson Twp., 83 A.3d at 957).
144. Id. at 939.
145. Id. (emphasis omitted).
146. Id. at 931–32 (quoting Robinson Twp., 83. A.3d at 956–57).
147. Id. at 924-25.
148. Id. at 939.
149. Id. at 938.
150. Id. at 936-37.
     Id. at 931.
152. Id. (quoting PA. CONST. art. I, § 27).
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door for future environmental protection claims.¹⁵³ While the court's language favored environmental protection—especially when compared to the *Payne* test—it failed to define unreasonable. Thus, the new standard added new confusion to decisions that require a balancing of environmental and industrial concerns.¹⁵⁴ Specifically, how much environmental degradation is unreasonable?

3. Interpreting Unreasonable: Center for Coalfield Justice

In *Center for Coalfield Justice*, ¹⁵⁵ two nonprofit environmental groups challenged mining permits granted to Consol Pennsylvania Coal Company (Consol) by the Department of Environmental Protection (DEP). ¹⁵⁶ The environmental groups relied on *PEDF* to argue to the Environmental Hearing Board (EHB) ¹⁵⁷ that the permits would result in an "unreasonable degradation" to natural resources. ¹⁵⁸ Although *Center for Coalfield Justice* was an administrative adjudication, it provided insight into post-*PEDF* judicial interpretation of the ERA. Specifically, the *Center for Coalfield Justice* decision left Pennsylvania citizens with a clearer understanding of what qualifies as unreasonable environmental degradation.

The challenged actions began in 2007 when Consol sought to expand its longwall mining¹⁵⁹ operations to the Bailey Mine Eastern Expansion Area in western Pennsylvania. The new area consisted of five coal panels. In May 2014 the DEP authorized Permit Revision No. 180, which allowed longwall mining along all five panels but not beneath two local streams. In February 2015 the DEP issued Permit Revision No. 189, which authorized mining beneath one of the streams in the first two panels. The DEP did not authorize mining under the second stream because Consol did not request it. Environmental groups appealed the issuance of these revised permits, arguing that the mining activity would cause extensive damage to the environment and violate the

^{153.} See infra Part III.A for a discussion of a potential future claim regarding regulation of GHG emissions.

^{154.} See *infra* Part II.B.3 for a discussion of the Pennsylvania Environmental Hearing Board's attempt to define and apply the unreasonable standard.

^{155.} EHB Docket No. 2014-072-B, 2017 WL 3842580 (Pa. Envtl. Hearing Bd. Aug. 15, 2017).

^{156.} Ctr. for Coalfield Justice, 2017 WL 3842580, at *1.

^{157.} The EHB is a Pennsylvania-specific quasi-judicial body within the DEP that hears appeals of final actions of the Department, including challenges to permit decisions. PHILIP L. HINERMAN, FOX ROTHSCHILD LLP, INSIDER'S GUIDE TO THE PENNSYLVANIA ENVIRONMENTAL HEARING BOARD 2 (2012), http://www.foxrothschild.com/content/uploads/2015/05/InsidersGuidePennsylvania Environmental_Hinerman.pdf [https://perma.cc/VU6F-9W8P].

^{158.} See Ctr. for Coalfield Justice, 2017 WL 3842580, at *14.

^{159.} Longwall mining involves recovery of coal in large blocks or "panels." Joshua I. Barrett, *Longwall Mining and SMCRA: Unstable Ground for Regulators and Litigants*, 94 W. VA. L. REV. 693, 694 (1992).

^{160.} See Ctr. for Coalfield Justice, 2017 WL 3842580, at *3.

^{161.} *Id*.

^{162.} Id. at *8.

^{163.} Id. at *8-9.

^{164.} Id. at *8.

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Less than two months after *PEDF*, the EHB declared Permit Revision No. 189 unconstitutional under the ERA. ¹⁶⁶ The EHB stated that because the permit did not comply with relevant environmental statutes, the DEP's issuance of the permit obviously violated the ERA. ¹⁶⁷ Applying *PEDF*'s unreasonable standard, the EHB also reasoned that when the Department expects the environmental impacts of a project will be "so extensive that the only way to 'fix' the anticipated damage to the stream is to essentially destroy the existing stream channel and streambanks and rebuild it from scratch, the Department's decision . . . is unreasonable and contrary to the law." ¹⁶⁸ Because Permit Revision No. 189 would destroy the stream entirely, it violated the ERA. ¹⁶⁹

The EHB then turned its analysis to Permit Revision No. 180. Did the Department's issuance of the permit comply with the ERA? The EHB evaluated the matter in two parts: Was the environmental degradation resulting from the permit unreasonable? Did the Commonwealth (here the DEP) fulfill its fiduciary duties as required by the ERA? According to the EHB, the "proper approach" to evaluate the DEP's fulfillment of its fiduciary duties required examination of the agency's decision-making process. 170 Did the DEP consider the environmental impacts of the permitted action? The EHB determined the DEP had practiced impartiality, loyalty, and prudence in its decision-making process because of the DEP's level of skill, technical expertise, and years of experience. 171 The DEP considered the environmental impacts of the permitted action; it protected one local stream from total destruction, and other streams would experience only minor impacts. 172 The EHB further determined that the DEP reviewed the application in a prudent manner and practiced ordinary care, as one would do when dealing with her own property. 173

Next, the EHB evaluated whether the permit would result in unreasonable degradation to the environment. Because the *PEDF* court failed to establish what "unreasonably impair" meant, the EHB attempted to apply and define *PEDF*'s new standard. The EHB first claimed that impacts causing no impairment to the environment were reasonable and thus permissible under the ERA.¹⁷⁴ It also stated, however, that "certain impacts that don't impair a stream but do impact it, can, based on their scope or duration, rise to the level of causing

^{165.} See id. at *14.

^{166.} Id. at *32.

^{167.} See id. "Even without fully evaluating the Department's action granting Permit Revision No. 189 under the new standard set out in *PEDF*, we have little difficulty concluding that this Department action also violates [the ERA].").

^{168.} Id. at *29.

^{169.} Id. at *32.

^{170.} Id. at *33–35.

^{171.} Id. at *35.

^{172.} Id. at *34.

^{173.} Id. at *35.

^{174.} Id. at *34.

'unreasonable degradation' or deterioration." Most helpful was the EHB's statement that, in order to be "unreasonable," the degradation of a public natural resource must be more significant than "limited and temporary impacts." Under this particular permit, the stream would suffer from flow loss and pooling. But the stream would not be entirely destroyed, and the longwall mining impacts would not be permanent. Therefore, the anticipated and actual impacts of the permit would not rise to the level of unreasonable degredation. The EHB concluded that Permit Revision No. 180 did not violate the ERA under the new *PEDF* standard.

Center for Coalfield Justice provides insight into post-PEDF interpretation of the ERA. Together, the PEDF and Center for Coalfield Justice decisions leave Pennsylvanians with the following under the ERA: The Commonwealth must protect the state's natural resources with impartiality, prudence, and loyalty, and unreasonable degradation of the environment is unconstitutional.¹⁸² Unreasonable degradation includes destruction that is permanent or absolute—something more significant than "limited and temporary impacts." But how can this new standard be applied to protect other natural resources? And where is the line between permanent or absolute and limited and temporary? These questions remain unanswered.

C. Jurisdictional Roadblocks in Pennsylvania

As of fall 2018 *PEDF*'s new and more powerful ERA interpretation has yet to be applied to actions regarding many of the state's public natural resources, including ambient air.¹⁸⁴ Thus, we do not know how far the Commonwealth is

- 175. Id.
- 176. Id.
- 177. Id. at *26.
- 178. See id. at *34
- 179. See id. at *29 (deeming Permit Revision No. 189 invalid in part because it would cause "the permanent elimination of the stream," but deeming Permit Revision No. 180 valid).
 - 180. Id. at *34.
 - 181. See id. at *34-35.
- 182. Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 932 (Pa. 2017) (quoting Robinson Twp. v. Commonwealth, 83 A.3d 901, 956–57 (Pa. 2013)); Ctr. For Coalfield Justice, 2017 WL 3842580, at *33 (first citing Robinson Twp., 83 A.3d at 953–54; then citing Pa. Envtl. Def. Found., 161 A.3d 911).
 - 183. Ctr. for Coalfield Justice, 2017 WL 3842580, at *24-26, *34.
- 184. See, e.g., Marcellus Shale Coal. v. Dep't of Envtl. Prot., No. 573 M.D. 2016, 2018 WL 4009286, at *14, *22 (Pa. Commw. Ct. Aug. 23, 2018) (declining to extend the ERA to school property and playgrounds); Del. Riverkeeper Network v. Middlesex Twp. Zoning Hearing Bd., 190 A.3d 1126, 1126 (Pa. 2018) (remanding the case "to the Commonwealth Court for reconsideration of its decision in light of Pa. Envtl. Def. Found."); Delaware Riverkeeper Network v. Pa. Dep't of Envtl. Prot., No. 525 M.D. 2017, 2018 WL 3554639, at *3 (Pa. Commw. Ct. July 25, 2018) (applying the ERA to water); Clean Air Council v. Sunoco Pipeline L.P., 185 A.3d 478, 493 (Pa. Commw. Ct. 2018) (declining to analyze whether Sunoco acted as a public utility and violated the ERA by constructing a pipeline); Del. Riverkeeper Network v. Sunoco Pipeline L.P., 179 A.3d 670, 683–84, 687, 695 (Pa. Commw. Ct. 2018) (declining to apply the ERA to the construction of a pipeline); Markwest Liberty Midstream & Res., LLC v. Cecil Twp. Zoning Hearing Bd., No. 904 C.D. 2016, 2018 WL 357337, at *8 (Pa. Commw. Ct. Jan. 11, 2018) (declining to apply the ERA when plaintiffs alleged that construction of a

expected to go to protect its ambient air. Additionally, and arguably most importantly: Would it even be appropriate for a court to decide a claim demanding that the Commonwealth regulate GHG emissions? Before a court can hear such a case on the merits, the case must overcome several justiciability obstacles: standing, mootness, ripeness, and political question doctrines. This Part focuses on Pennsylvania's standing and political question doctrines.

1. Establishing Standing in Pennsylvania: Funk v. Wolf

In order for a Pennsylvania court to hear a case, the plaintiffs must establish that they have standing. ¹⁸⁶ "A person is sufficiently aggrieved under Pennsylvania's prudential standing requirement 'if he can establish that he has a substantial, direct[,] and immediate interest in the outcome of the litigation.'" ¹⁸⁷ Funk v. Wolf ¹⁸⁸ is an example of Pennsylvania courts' applications of its standing jurisprudence to a pre-PEDF case brought under the ERA.

In *Funk*, several minor plaintiffs brought a case under the ERA demanding that Pennsylvania's executive branch develop and implement a scheme to regulate GHG emissions.¹⁸⁹ The plaintiffs claimed that continued inaction by the government would result in unsafe amounts of carbon dioxide entering the atmosphere.¹⁹⁰ This, in turn, would cause irreversible climate change resulting in sea level rise, coastal flooding, storm surges, and erratic, extreme weather events.¹⁹¹ Changes in global temperature would also, according to the plaintiffs,

compressor station interfered with their right to enjoy clean air).

185. See, e.g., Robinson Twp., 83 A.3d at 917–30 (applying standing, ripeness, and political question doctrines); Rendell v. Pa. State Ethics Comm'n, 983 A.2d 708, 717–19 (Pa. 2009) (applying standing, ripeness, political question, and mootness doctrines); Commonwealth ex rel. Judicial Conduct Bd. v. Griffin, 918 A.2d 87, 93 (Pa. 2007) ("Standing is a core jurisprudential requirement that looks to the party bringing a legal challenge and asks whether that party has actually been aggrieved as a prerequisite before the court will consider the merits of the legal challenge itself."); cf. MARK C. ALEXANDER, A SHORT & HAPPY GUIDE TO CONSTITUTIONAL LAW 19–26 (2013) (discussing federal justiciability requirements). Unlike federal justiciability requirements, "notions of case or controversy and justiciability in Pennsylvania have no constitutional predicate, do not involve a court's jurisdiction, and are regarded instead as prudential concerns implicating courts' self-imposed limitations." Robinson Twp., 83 A.3d at 917 (first citing Fumo v. City of Philadelphia, 972 A.2d 487, 500 n.5 (Pa. 2009); then citing Rendell, 983 A.2d at 717 n.9).

186. See, e.g., Griffin, 918 A.2d at 93 (noting that "[s]tanding is a core jurisprudential requirement" to bring a legal challenge in Pennsylvania). "Pennsylvania's prudential standing requirement differs from standing under Article III of the United States Constitution as applied in federal courts," but "Pennsylvania courts often look to federal standing decisions for guidance." Funk v. Wolf, 144 A.3d 228, 244 (Pa. Commw. Ct. 2016), aff'd, 158 A.3d 642 (Pa. 2017).

187. Funk, 144 A.3d at 243 (alteration in original) (emphasis omitted) (quoting Fumo, 972 A.2d at 496).

188. 144 A.3d 228 (Pa. Commw. Ct. 2016), aff'd, 158 A.3d 642 (Pa. 2017).

189. Funk, 144 A.3d at 232 ("Petitioners seek various forms of declaratory and mandamus relief with the goal of requiring . . . [Pennsylvania's executive branch] 'to develop a comprehensive plan' and to regulate 'Pennsylvania's emissions of carbon dioxide . . . and other greenhouse gases . . . ' in a comprehensive manner that is 'consistent with[,] and in furtherance of[,] the Commonwealth's duties and obligations under [the ERA]." (second and third alterations in original)).

190. Id. at 235-36.

191. *Id*.

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impact biodiversity and likely lead to water shortages.¹⁹² They claimed that, while the effects are expected to worsen with time, the impacts of climate change were already evident.¹⁹³

The plaintiffs requested the Commonwealth conduct studies regarding (1) how greenhouse gas emissions and the resulting climate change were impacting citizens' rights; (2) how to protect citizens from pollution and resulting climate change; and (3) how state action, or lack thereof, had failed to protect the state's natural resources.¹⁹⁴ The plaintiffs requested that, based on the findings of these studies, Pennsylvania implement regulations to reduce greenhouse gas emissions "to safe levels," thus fulfilling its fiduciary duty to "conserve and maintain" the state's air.¹⁹⁵

The Commonwealth Court held that one of the plaintiffs, a ten-year-old Philadelphia resident who "suffer[ed] from asthma and a pollen allergy," had sufficiently alleged facts to support her claim of standing. 196 The plaintiff further alleged that the impacts of climate change—namely hotter summers and more erratic weather patterns—had negatively impacted her ability to hike and enjoy other outdoor activities.¹⁹⁷ The court stated that her claims were substantial because the Commonwealth's failure to act had negatively impacted her ability to enjoy particular activities, threatened her safety, and made her question her ability to enjoy the environment in the future. 198 The plaintiff successfully established a "direct" harm by pointing to the Commonwealth's duties under the ERA; by doing so, she demonstrated a sufficient causal link between the Commonwealth's failure to act, GHG emissions, and her diminished ability to enjoy outdoor activities.¹⁹⁹ Finally, the court concluded that despite the plaintiff's presentation of "both present and likely future harms," her harms were "immediate" because the "zone of interest protected by the ERA is the rights of all people of the Commonwealth, including future generations."200 Because the ERA expressly states that the Commonwealth has a duty to protect the environment for future generations, the court concluded that the plaintiff's harms were sufficiently "immediate."201

The Commonwealth Court ultimately dismissed $Funk^{202}$ because it relied on Payne rather than $Robinson\ Township^{203}$ and did not consider the ERA to be self-executing. 204 The Funk court quoted from a previous case in which the

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192. Id.
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^{193.} Id.

^{194.} Id. at 237-38.

^{195.} Id. at 238.

^{196.} *Id.* at 246–48 (accepting the plaintiff's allegations as true at the pleading stage).

^{197.} *Id.* at 246.

^{198.} Id. at 246-47.

^{199.} Id. at 247.

^{200.} Id. at 248.

^{201.} Id. at 247-48.

^{202.} Id. at 252.

^{203.} Id. at 234 n.2 (rejecting Robinson Township as "not binding precedent").

^{204.} See id. at 248-52 (refusing to compel the Commonwealth to promulgate regulations or issue

Commonwealth Court described the ERA as "'a thumb on the scale, giving greater weight to the environmental concerns in the decision-making process' when 'environmental concerns of development are juxtaposed with economic benefits of development."²⁰⁵ The question now is this: If the plaintiffs brought this claim after *PEDF*, could they prevail?

2. Overcoming the Political Question Doctrine: William Penn

Pennsylvania courts may also refrain from hearing a case if it involves a nonjusticiable political question.²⁰⁶ The political question doctrine exists to maintain appropriate boundaries among the governmental branches.²⁰⁷ The political question doctrine could potentially limit the judiciary's role in GHG regulation. One might argue, for example, that a court does not have the authority to demand implementation of GHG emission regulation without violating the separation of powers.²⁰⁸ In the American governmental system, the legislative branch creates and presents legislation, the executive branch enforces it, and the judicial branch reviews it.²⁰⁹ To say that the Pennsylvania Supreme Court should mandate legislative action, therefore, risks greatly disturbing—or confronting—the separation of powers.²¹⁰ The recent Pennsylvania Supreme Court decision in *William Penn*, however, may help future citizens seeking GHG regulation overcome this jurisdictional roadblock.

In William Penn, the court reversed the Commonwealth Court's dismissal of a claim as a nonjusticiable political question. ²¹¹ In William Penn, the plaintiffs

executive orders "[b]ecause the ERA does not authorize [the executive branch of the Commonwealth] to disturb the legislative scheme," and refusing to "declare that an atmosphere with safe levels of CO_2 and other GHGs is protected by the ERA, that [the executive branch of the Commonwealth] ha[s] a duty to protect the atmosphere through both not acting contrary to that right and by affirmatively protecting the atmosphere, and that [the executive branch] ha[s] failed to uphold [its] obligations under the ERA").

205. *Id.* at 243 (quoting Pa. Envtl. Def. Found. v. Commonwealth, 108 A.3d 140, 170 (Pa. Commw. Ct. 2015)).

206. See, e.g., Blackwell v. City of Philadelphia, 684 A.2d 1068, 1073 (Pa. 1996) (holding that the question of whether the Philadelphia City Council violated its own internal rules was a nonjusticiable political question); see also John J. Dvorske et al., Courts and Their Jurisdiction, in STANDARD PENNSYLVANIA PRACTICE 2D, § 2.1, § 2.15 (Westlaw 2018). Pennsylvania political question jurisprudence is influenced by the federal political question doctrine, but it is "mine[d] from a different seam." William Penn Sch. Dist. v. Pa. Dep't of Educ., 170 A.3d 414, 437 (Pa. 2017). "In contrast to the federal approach, notions of case or controversy and justiciability have no constitutional predicate, do not involve a court's jurisdiction, and are regarded instead as prudential concerns implicating courts' self-imposed limitations." Id. (quoting Robinson Twp. v. Commonwealth, 83 A.3d 901, 917 (Pa. 2013)).

207. Dvorske et al., *supra* note 206, § 2.15.

208. See, e.g., Kanuk ex rel. Kanuk v. State, 335 P.3d 1088, 1097–99 (Alaska 2014) (holding that minors' claims that Alaska's duty to protect the atmosphere should be "dictated by best available science" were nonjusticiable political questions).

209. See ALEXANDER, supra note 185, at 69.

210. See Jefferson Cty. Court Appointed Emps. Ass'n v. Pa. Labor Relations Bd., 985 A.2d 697, 707 (Pa. 2009) (noting that "a judicial action that infringes on the legislative function . . . violates the separation of powers").

211. William Penn, 170 A.3d at 418. In William Penn, school districts, individuals, and interested

brought a claim under article III, section 14 of the Pennsylvania Constitution, asserting that the General Assembly unconstitutionally failed to rectify growing disparities between richer and poorer school districts. The relevant section of the Pennsylvania Constitution reads in its entirety: The General Assembly shall provide for the maintenance and support of a thorough and efficient system of public education to serve the needs of the Commonwealth. Pennsylvania Department of Education (Department) argued that this claim was nonjusticiable or beyond the scope of judicial branch authority. The Department's position relied on Pennsylvania case law, which stated that mandating a fair educational system—one providing an equal dollar amount per student—would be too rigid and "offend the historical means and intended ends of the Education Clause."

But the Pennsylvania Supreme Court rejected that case law as inaccurate²¹⁶ and held that the plaintiffs' claim was justiciable.²¹⁷ The court noted that in Pennsylvania the political question doctrine should be narrowly construed: the judiciary should abstain from hearing a case *only if* the resolution of that issue "has been entrusted exclusively and finally to the political branches of government."²¹⁸ The William Penn court noted that, under those circumstances, it had an obligation to fulfill its duty as the "ultimate interpreter of the Constitution."²¹⁹

Further, the court stated that the judiciary need not reject political questions in all instances and "application of the [political question] doctrine ultimately turns . . . on 'how importunately the occasion demands an answer." That is, if a particular issue is pressing enough, the political question doctrine cannot justify keeping the issue out of court. The particular issue in *William Penn* was: What more must be done to ensure adequate education for Pennsylvania citizens? The Pennsylvania Supreme Court held this to be justiciable. Description of the political question of the political question doctrine cannot justify keeping the issue out of court.

William Penn is significant for two reasons. First, it is a majority opinion that unpacks the Pennsylvania Supreme Court's approach to the political

groups claimed that the General Assembly failed to fulfill its duty to provide adequate funding for public education across the state. *Id.* at 417.

- 212. *Id*.
- 213. PA. CONST. art. III, § 14.
- 214. See William Penn, 170 A.3d at 417-18.
- 215. Id. at 433.
- 216. Id. at 445.
- 217. *Id.* at 464 (stating that the plaintiffs' "claims are not subject to judicial abstention under the political question doctrine").
 - 218. Id. at 437–39 (quoting Sweeney v. Tucker, 375 A.2d 698, 706 (Pa. 1977)).
 - 219. Id. at 436-37 (quoting Baker v. Carr, 369 U.S. 186, 210-11 (1962)).
- 220. Id. at 437 (quoting Nixon v. United States, 506 U.S. 224, 253 (1993) (Souter, J., concurring)).
- 221. See id. at 438–39 (noting that the political question doctrine has not prevented judicial review when individual liberties are at stake or a statute obstructs a fundamental right).
 - 222. See id. at 417, 434.
 - 223. Id. at 464.

question doctrine.²²⁴ Second, it is an example of the court's refusal to dismiss a claim premised on a constitutional right that arguably imposes an affirmative duty on the political branches.²²⁵ This permits plaintiffs to ask the court to decide whether the political branches must do more to protect Pennsylvanians' constitutional rights—including, potentially, the constitutional right to clean air.

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III. DISCUSSION

The issue of air quality protection is not a new one. Ambient air has been central to considerable nationwide litigation in the past decade.²²⁶ Specifically, courts have been asked to face the impacts of GHG emissions on air quality and the increasing global temperature.²²⁷ Plaintiffs across the country have urged courts to do something about GHG emissions in order to mitigate global warming.²²⁸ Over time, courts have come to generally accept climate change as an ongoing phenomenon sufficiently linked to human activity.²²⁹ Unfortunately, regulating GHGs—and offering greater protection to the ambient air—is more complicated. It is just as complicated in Pennsylvania as it is elsewhere, since GHGs do not remain localized once they enter the atmosphere.²³⁰ Halting these emissions is impossible as they result from almost all modern human activities.²³¹ But that does not mean that attempting to regulate GHG emissions is futile. The following discussion explains how Pennsylvanians—following the outcomes of *PEDF* and *William Penn*—can and should demand such regulation.

The Pennsylvania Supreme Court's new interpretation of the ERA makes Pennsylvania a promising jurisdiction for citizens to demand affirmative state action to control GHG emissions for four reasons. First, *PEDF*'s new, environmentally friendly interpretation of the ERA forbids unreasonable degradation to the environment, which the EHB has interpreted to mean permanent or lasting impacts.²³² Because GHG emissions have *permanent* effects

^{224.} See id. at 435–39 (articulating Pennsylvania's political question jurisprudence).

^{225.} See id. at 455–56 (discussing other instances in which the Pennsylvania Supreme Court provided a "broadly-stated mandate" to guide legislative decisions).

^{226.} See Michael C. Blumm & Mary Christina Wood, "No Ordinary Lawsuit": Climate Change, Due Process, and the Public Trust Doctrine, 67 Am. U. L. Rev. 1, 21–24 (2017) (discussing Our Children's Trust's Atmospheric Trust Litigation campaign).

^{227.} See id. (discussing the Atmospheric Trust Litigation campaign's attempts to expand the public trust doctrine to the atmosphere and compel judicial intervention to combat climate change).

^{228.} See id.; see also State Legal Actions, supra note 17 (providing an overview of Our Children's Trust's Atmospheric Trust Litigation campaign).

^{229.} See, e.g., Massachusetts v. EPA, 549 U.S. 497, 521 (2007) ("The harms associated with climate change are serious and well recognized."); Yumehiko Hoshijima, Note, Presidential Administration and the Durability of Climate-Consciousness, 127 YALE L.J. 170, 220–22 (2017) (discussing "[t]hree recent decisions [that] have demonstrated . . . judicial acceptance of the basic facts of climate change").

^{230.} See EPA, CLIMATE CHANGE INDICATORS, supra note 2, at 14-15.

^{231.} See EPA, INVENTORY OF GHGs, supra note 3, at 2-24 to 2-35 (noting GHG emissions by economic sector).

^{232.} See *supra* Part II.B.2 for a discussion of the *PEDF* court's interpretation of the ERA and *supra* Part II.B.3 for a discussion of the EHB's decision in *Center for Coalfield Justice*.

on the state's ambient air,²³³ the Commonwealth's current GHG regulatory scheme constitutes unreasonable degradation. Second, under PEDF, the ERA bestows prohibitory and affirmative duties on the Commonwealth to protect the state's public trust resources from such unreasonable degradation.²³⁴ The Commonwealth cannot cause—or knowingly fail to stop—unreasonable degradation to these resources.²³⁵ Third, *PEDF* dictates that the Commonwealth (as trustee of the state's public trust resources) protect the trust with loyalty, impartiality, and prudence.²³⁶ By not acting to protect the state's atmosphere from GHG emissions, the Commonwealth fails to fulfill this duty.²³⁷ Finally, Funk and William Penn suggest that citizens demanding GHG regulation would not have their case dismissed as nonjusticiable. 238 Viewed together, PEDF and William Penn suggest citizen plaintiffs can use the courts to challenge the Commonwealth's inaction—its failure to protect the state's atmosphere from unreasonable degradation.²³⁹ Ultimately, these cases lay the groundwork for a Pennsylvania court to order the Commonwealth to create and implement regulations for GHG emissions. In other words, a case like Funk²⁴⁰—in which plaintiffs allege the that Commonwealth has failed to fulfill its fiduciary duties under the ERA and must implement a regulatory scheme for GHG emissions would be successful in light of these recent cases.

A. Because GHG Emissions Cause Unreasonable Degradation to the Commonwealth's Natural Resources, the Commonwealth Must Act Affirmatively To Regulate Them

"[C]lean air" is an undeniably protected public natural resource because it is expressly listed in the ERA.²⁴¹ GHG emissions are polluting the air and getting trapped in the atmosphere, damaging this protected resource.²⁴² As GHG emissions collect in the atmosphere and heat the planet, subsequent damage to the environment will occur.²⁴³ Sea level rise, coastal flooding, storm surges, and erratic, extreme weather events will result in degradation to land and water, for example.²⁴⁴

^{233.} See *supra* notes 7–13 and accompanying text for a discussion of the long-term negative impacts of GHG emissions.

^{234.} See *supra* Part II.B.2 for a discussion of the *PEDF* court's new interpretation of the ERA.

^{235.} See supra Part II.B.2 for a discussion of the PEDF court's new interpretation of the ERA.

^{236.} See *supra* Part II.B.2 for a discussion of the *PEDF* court's new interpretation of the ERA requiring the use of private law concepts.

^{237.} See infra Part III.B.

^{238.} See supra Part II.C.2 for a discussion of William Penn.

^{239.} William Penn Sch. Dist. v. Pa. Dep't of Educ., 170 A.3d 414, 457 (Pa. 2017); Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 933 (Pa. 2017).

^{240.} See supra Part II.C.1 for a discussion of Funk.

^{241.} PA. CONST. art. I, § 27, cl. 1.

^{242.} See supra note 6 and accompanying text.

^{243.} See *supra* Part II.C.1 for a discussion of the *Funk* plaintiffs' arguments regarding environmental degradation resulting from climate change.

^{244.} See supra Part II.C.1 for a discussion of the Funk plaintiffs' arguments regarding

In *PEDF*, the Pennsylvania Supreme Court overruled and openly criticized the *Payne* test for its failure to offer adequate protection to the environment.²⁴⁵ In the *Payne* test's place, the court adopted the standard that laws that unreasonably degrade the "public natural resources" protected by the ERA are unconstitutional.²⁴⁶ The *PEDF* court did not define unreasonable, but *Center for Coalfield Justice* suggested that permanent or absolute environmental impacts are unreasonable while "limited and temporary" impacts are not.²⁴⁷ The global impact of unregulated GHG emissions cannot be called limited and temporary.²⁴⁸

As GHGs collect in the atmosphere, they heat the planet.²⁴⁹ When the planet is heated to a certain degree, the heating will be irreversible, and the effects will be permanent.²⁵⁰ Thus, because the degradation to the ambient air will have more than limited and temporary impacts,²⁵¹ laws that permit such degradation are unconstitutional under the ERA.²⁵²

In addition to proscribing laws that allow unreasonable degradation of public natural resources, *PEDF* recognized that the ERA imposes an *affirmative duty* upon the Commonwealth to protect the air²⁵³: "the Commonwealth must act affirmatively via legislative action to protect the environment."²⁵⁴ Despite this constitutional mandate, the Commonwealth has not adequately prevented GHG emissions from causing unreasonable degradation to public natural resources. *PEDF* commands that the political branches fashion a regulatory scheme designed to limit GHG emission to protect its public natural resources,²⁵⁵ and it appears that the Commonwealth has only twelve years to do it.²⁵⁶ The next Part discusses the private trust principles that must guide the Commonwealth's implementation of this scheme.

environmental degradation resulting from climate change.

- 245. Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 930 (Pa. 2017).
- 246. *Id.* at 931–32.
- 247. See Ctr. for Coalfield Justice, EHB Docket No. 2014-072-B, 2017 WL 3842580, at *25 (Pa. Envtl. Hearing Bd. Aug. 15, 2017).
 - 248. See supra notes 11–12 and accompanying text for an explanation of the "tipping point."
- 249. See *supra* notes 7–14 and accompanying text for a discussion of the relationship between GHG emissions and the planet's temperature.
 - 250. See supra notes 11-12 and accompanying text for an explanation of the "tipping point."
 - 251. Ctr. for Coalfield Justice, 2017 WL 3842580, at *34.
 - 252. See supra note 246 and accompanying text.
- 253. *Cf.* Pa. Envtl. Def. Found. v. Commonwealth, 161 A.3d 911, 933 (Pa. 2017) ("[T]he Commonwealth has a duty to prohibit the degradation, diminution, and depletion of our public natural resources.").
 - 254. *Id.* (citing Robinson Twp. v. Commonwealth, 83 A.3d 901, 958 (Pa. 2013)).
- 255. See id. at 932 ("[T]he Commonwealth must act affirmatively via legislative action to protect the environment." (citing Robinson Twp., 83 A.3d at 958)). See supra Part II.B.2 for a discussion of the Commonwealth's duty to protect the state's natural resources and supra Part II.C.1 for a discussion of the Funk plaintiffs' suggested regulatory scheme and their reasons for seeking implementation of such a scheme.
- 256. See generally INT'L PANEL ON CLIMATE CHANGE, GLOBAL WARMING OF 1.5 °C (2018) (finding that the world has about twelve years to stem potentially catastrophic climate change).

B. The Failure To Regulate GHG Emissions Violates the Commonwealth's Fiduciary Duties

The ERA, as interpreted in *PEDF*, requires that the Commonwealth care for the public trust of natural resources as if it were a private trust: the Commonwealth has a duty to protect the trust with loyalty, impartiality, and prudence.²⁵⁷ By failing to regulate GHG emissions, the Commonwealth is not fulfilling its fiduciary duties with respect to the state's ambient air, which violates the ERA.

The duty of loyalty imposes an obligation to manage the trust in the way that best serves the trust's beneficiaries.²⁵⁸ The trust's purpose is to protect the state's natural resources so that citizens can enjoy and benefit from them.²⁵⁹ The Commonwealth's citizens and future generations are explicit beneficiaries of the trust, meaning that the trust must continue to fulfill its purpose into the long-term future.²⁶⁰ Without regulation, this is not possible.²⁶¹

This purpose of the trust cannot be served if the trust is destroyed.²⁶² GHG emissions are destroying the quality of the air now, and the effects will only worsen over time.²⁶³ Warming will continue, become irreversible, and significantly alter living conditions.²⁶⁴ Thus, the result of long-term, unregulated GHG emissions will destroy the air, as well as other components of the trust. When the long-term effects of the Commonwealth's inaction will destroy the trust, one cannot say that the Commonwealth is fulfilling its duty of loyalty to all of the trust's beneficiaries.

Impartiality requires that the trustee consider all beneficiaries when managing the trust.²⁶⁵ The trustee must give due regard to each beneficiary's interest in the trust.²⁶⁶ Practicing due regard requires acting with proper care or concern.²⁶⁷ All beneficiaries of the trust include all citizens of Pennsylvania—

^{257.} Pa. Envtl. Def. Found., 161 A.3d at 932 (citing Robinson Twp. v. Commonwealth, 83 A.3d 901, 956–57 (Pa. 2013)); see also id. at 932–33 (reviewing the definitions of a trustee's duties under Pennsylvania law).

^{258.} *Id.* at 932 (first citing Metzger v. Lehigh Valley Tr. & Safe Deposit Co., 69 A. 1037, 1038 (Pa. 1908); then citing *In re* Hartje's Estate, 28 A.2d 908, 910 (Pa. 1942)).

^{259.} See id. at 933.

^{260.} See id. at 934.

^{261.} See *supra* notes 6–14 and accompanying text for a discussion of why action is needed to combat climate change.

^{262.} See Pa. Envtl. Def. Found., 161 A.3d at 933 (noting that the Commonwealth has a duty under the public trust to "prohibit the degradation, diminution, and depletion of our public natural resources").

^{263.} See *supra* notes 7–14 and accompanying text.

^{264.} See *supra* notes 7–14 and accompanying text.

^{265.} Pa. Envtl. Def. Found., 161 A.3d at 933 (first citing 20 PA. STAT. AND CONS. STAT. ANN § 7773 (West 2018); then citing Estate of Sewell, 409 A.2d 401, 402 (Pa. 1979)).

^{266.} *Id.* (first citing 20 PA. STAT. AND CONS. STAT. ANN § 7773; then citing *Estate of Sewell*, 409 A.2d at 402).

^{267.} See With Due Regard To, MERRIAM-WEBSTER, http://www.merriam-webster.com/dictionary/with%20due%20regard%20to [https://perma.cc/9R4K-PXL6] (last visited Nov. 1, 2018) (defining "with due regard to" as "with the proper care or concern for").

now and in the future.²⁶⁸ To properly care or have concern for the rights of all beneficiaries, then, requires maintaining the trust now and continuing to maintain it in the future. Allowing GHG emissions to continue collecting in and warming the atmosphere—resulting in the other aforementioned environmental harms—does not constitute maintenance of the trust. If the trust is eventually destroyed by the Commonwealth's inaction, it cannot be said that the Commonwealth is giving due regard to future generations' interests in the trust.²⁶⁹

Prudence requires the Commonwealth to "exercise such care and skill as a man of ordinary prudence would exercise in dealing with his own property." When dealing with one's own property, one takes measures to protect that property from permanent, irreversible damage. While one cannot stop entirely or prevent with certainty varying types of damages to one's property, The is prudent to act affirmatively to stop and/or prevent damage to the extent possible. If one knows that a particular type of damage to one's property will occur if no measure is taken, a prudent person takes measures to protect the property from that damage. In this case, the Commonwealth is aware that continued, unregulated GHG emissions will pollute the air and heat the planet. Still, the Commonwealth has not sufficiently regulated GHG emissions. Property for the Commonwealth has failed to fulfill its duty to act prudently. The Commonwealth's failure to act with loyalty, prudence, and impartiality with respect to the state's ambient air constitutes a violation of the

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^{268.} See PA. CONST. art. I, § 27, cl. 2.

^{269.} Cf. Pa. Envil. Def. Found., 161 A.3d at 933 (noting that the Commonwealth has a duty under the public trust to "prohibit the degradation, diminution, and depletion of our public natural resources").

^{270.} Id. at 932 (quoting In re Mendenhall, 398 A.2d 951, 953 (Pa. 1979)).

^{271.} See, e.g., Jeroen C.J.H. Aerts & W.J. Wouter Botzen, Flood-Resilient Waterfront Development in New York City: Bridging Flood Insurance, Building Codes, and Flood Zoning, 1227 ANNALS N.Y. ACAD. SCI. 1, 8–9 (2011) (explaining how New York City hopes to attract greater waterfront development by providing increased protections against flood damage); W.J.W. Botzen & J.C.J.M. van den Bergh, Risk Attitudes to Low-Probability Climate Change Risks: WTP for Flood Insurance, 82 J. ECON. BEHAV. & ORG. 151, 152 (2012) (explaining that when people hear of an extreme weather event, they are more likely to pursue flood insurance for their homes).

^{272.} See, e.g., Julie Turkewitz & Audra D. S. Burch, Storm With 'No Boundaries' Took Aim at Rich and Poor Alike, N.Y. TIMES (Aug. 31, 2017) http://nyti.ms/2xBjC3H [https://perma.cc/H37E-6PBW].

^{273.} See Prudent, MERRIAM-WEBSTER, http://www.merriam-webster.com/dictionary/prudent [https://perma.cc/7APR-S3YY] (last visited Nov. 1, 2018) (defining "prudent" as "shrewd in the management of practical affairs").

^{274.} Consider, for example, the prudent practices of stopping at a red light to avoid damage to one's vehicle, using an umbrella to protect one's belongings in the rain, or boarding up one's windows before a major storm.

^{275.} See Climate Change, PA. DEP'T ENVTL. PROT., http://www.dep.pa.gov/Business/Energy/OfficeofPollutionPrevention/climatechange/Pages/default.aspx [https://perma.cc/2H74-AJZD] (last visited Nov. 1, 2018) (addressing climate change and its causes).

^{276.} See Funk v. Wolf, 144 A.3d 228, 240 (Pa. Commw. Ct. 2016) (stating that members of Pennsylvania's executive branch contended that they did not "have statutory or regulatory authority to regulate CO, or GHGs as part of their official duties"), *aff'd*, 158 A.3d 642 (Pa. 2017).

ERA.

C. The Commonwealth's Failure To Regulate GHG Emissions Is a Justiciable Question

Establishing standing in the GHG emissions context is complicated because one must show that the pollution and/or resulting climate change and its effects are causing a substantial and direct problem requiring an immediate judicial resolution.²⁷⁷ But based on *Funk*, the standing requirement in a GHG emission case would likely be met in Pennsylvania.²⁷⁸ Thus, a similar plaintiff would not be barred from bringing a similar suit.

Although challenging government inaction traditionally raises separation of powers issues, *William Penn* suggests that Pennsylvania courts would not dismiss as nonjusticiable a suit brought by citizens demanding GHG regulation²⁷⁹: "Courts will refrain from resolving a dispute and reviewing the actions of another branch only where 'the determination whether the action taken is within the power granted by the Constitution has been entrusted exclusively and finally to the political branches of government for 'self-monitoring." ²⁸⁰ The ERA does not entrust duties expressly to the legislature or executive. ²⁸¹ Just as *William Penn* critiqued the legislature's inadequate fulfillment in providing a "thorough and efficient system of public education," ²⁸² a case demanding GHG emissions regulation would challenge the legislature's failure to conserve and maintain "clean air." ²⁸³

The argument for regulation of GHG emissions is analogous to the one made by the *William Penn* plaintiffs: the legislature is not doing enough to ensure all state citizens enjoy the rights granted to them by the Pennsylvania Constitution.²⁸⁴ Despite these questions being arguably political and out of judicial reach, plaintiffs deserve an opportunity to have the legislature's performance of its constitutional obligations reviewed and evaluated.²⁸⁵ Why? Failure to provide a thorough education to the state's citizens, like a failure to protect the state's atmosphere, results in a violation of a right expressly granted

^{277.} See id. at 243–44 (articulating the standard for standing). An interest is substantial if a party's interest "surpasses that of all citizens in procuring obedience to the law." *Id.* at 244 (quoting Fumo v. City of Philadelphia, 972 A.2d 487, 496 (Pa. 2009)). An interest is direct "if there is a causal connection between the matter complained of and the harm alleged." *Id.* (citing *Fumo*, 972 A.2d at 496). Finally, immediate means that the "causal connection is not remote or speculative." *Id.* (quoting *Fumo*, 972 A.2d at 496).

^{278.} See id. at 246–47 (granting standing to a plaintiff who alleged that climate change diminished her ability to enjoy outdoor activities).

^{279.} See *supra* Part II.C.2 for a discussion of *William Penn* and its holding that Pennsylvania courts need not always reject the opportunity to rule on political questions.

^{280.} William Penn Sch. Dist. v. Pa. Dep't of Educ., 170 A.3d 414, 438 (Pa. 2017) (quoting Sweeney v. Tucker, 375 A.2d 698, 706 (Pa. 1977)).

^{281.} See PA. CONST. art. I, § 27.

^{282.} PA. CONST. art. III, § 14.

^{283.} See PA. CONST. art. I, § 27.

^{284.} See supra notes 211–212 for a discussion of the plaintiffs' argument in William Penn.

^{285.} See supra notes 214–223 and accompanying text.

to Pennsylvania citizens. If citizens cannot challenge the legislature's ability to provide them with their constitutional rights in court, what is there to keep the legislature serving the public as it must? While the *William Penn* court addressed the Commonwealth's constitutional duty to provide a thorough education, the court's language can be applied to constitutional rights generally.²⁸⁶ Thus a court faced with a suit challenging the Commonwealth's failure to regulate GHG emissions should come to the same conclusion as *William Penn*: the performance of the state legislature, in carrying out constitutional duties, can be challenged in court.²⁸⁷

In Pennsylvania,

[w]hen a question involving important public or private rights, extending through all coming time, has been passed upon on a single occasion, and which decision can in no just sense be said to have been acquiesced in, it is not only the right, but the duty, of the court, when properly called upon, to re-examine the questions involved, and again subject them to judicial scrutiny.²⁸⁸

The Commonwealth's failure to regulate GHG emissions as demanded by the ERA is the type of situation contemplated by this Pennsylvania precedent.

Referencing the above standard, the issue of clean ambient air certainly involves an "important public or private right[]" and "extend[s] through all coming time." Clean air is essential for human survival; it is important, public, and perpetual. Further, dismissing a question as nonjusticiable cannot be justified if it results in a decision that "can in no just sense be said to have been acquiesced in." The increasing rate of GHG emissions will continue to pollute the atmosphere, causing climate change and, soon enough, irreversible heating of the atmosphere and planet. Widespread flooding and more frequent, stronger storms are not consequences that will improve human existence. These resulting dangers cannot be accepted in a just sense. To continue without the necessary GHG regulations is beyond unjust for humanity—it is suicide.

- 286. See supra notes 211–223 and accompanying text.
- 287. William Penn Sch. Dist. v. Pa. Dep't of Educ., 170 A.3d 414, 463 (Pa. 2017).
- 288. Id. at 457 (quoting Commonwealth ex rel. Margiotti v. Lawrence, 193 A. 46, 48 (Pa. 1937)).
- 289. See id. (quoting Margiotti, 193 A. at 48).
- 290. See PA. CONST. art. I, § 27; see also Juliana v. United States, 217 F. Supp. 3d 1224, 1250 (D. Or. 2016) (holding that "the right to a climate system capable of sustaining human life is fundamental to a free and ordered society"), appeal denied, No. 6:15-CV-01517-TC, 2017 WL 2483705 (D. Or. June 8, 2017).
- 291. See William Penn, 170 A.3d at 457 (quoting Margiotti, 193 A. at 48); EPA, CLIMATE CHANGE INDICATORS, supra note 2, at 12.
- 292. Eddy, *supra* note 8, at 6 ("At some time in the future, the interdependent heating cycles will reach a 'tipping point,' which is the point scientists identify as the heat level beyond which humans will lose the ability to prevent further heating.").
 - 293. See *supra* Section I for a discussion of the environmental impacts of global warming.
- 294. Merriam-Webster defines "just" as (1) reasonable or (2) proper. *Just*, MERRIAM-WEBSTER, http://www.merriam-webster.com/dictionary/just#h1 [https://perma.cc/YC9R-B32A] (last visited Nov. 1, 2018). Allowing severe, damaging weather patterns to continue unchecked, when measures could be taken to mitigate them, is neither reasonable nor proper.

Finally, the *William Penn* court explained the role of the judiciary: "[I]t is not only the right, but the duty, of the court, when properly called upon, to reexamine the questions involved, and again subject them to judicial scrutiny."²⁹⁵ Judicial review of the legislature's current monitoring of GHGs—like the *William Penn* court's review of the "thoroughness" and "efficiency" of the state's public education system²⁹⁶—is warranted and necessary.²⁹⁷ The one exception to judicial review occurs, according to *William Penn*, when the right has been expressly granted to a political branch of the government.²⁹⁸ Pennsylvania's ERA does not expressly delegate the duty of public trust protection to the legislative or the executive branch.²⁹⁹ The decisions in *PEDF* and *William Penn*, when viewed together, suggest citizen plaintiffs can challenge the Commonwealth's failure to protect the state's atmosphere from permanent, unreasonable degradation.

IV. CONCLUSION

The Pennsylvania ERA bestows upon the Commonwealth a duty to protect the state's public natural resources—including the ambient air—for the benefit of all. In light of *PEDF*, the Commonwealth has an affirmative duty to act to protect its public natural resources from unreasonable degradation. Failure to regulate GHG emissions will result in unreasonable degradation of the state's ambient air. Thus, the Commonwealth's failure to regulate GHG emissions constitutes a violation of the ERA—article I, section 27 of the Pennsylvania Constitution.

Requiring the Commonwealth to provide more protection to a constitutional right could be considered a political question unfit for judicial review. That is, the political question doctrine could stand in the way of citizens demanding regulation of GHGs under the ERA. But recently, in *William Penn*, the Pennsylvania Supreme Court agreed to hear the citizens' claims, opening the door for future political questions—like those regarding the Commonwealth's failure to fulfill its duties under the ERA. In other words, *William Penn* resolves the political question problem and makes it possible for groups to use the courts to demand more action from the Commonwealth. In Pennsylvania, the people could and should utilize the courts to demand the Commonwealth enact GHG emission regulation.

^{295.} William Penn, 170 A.3d at 457 (quoting Margiotti, 193 A. at 48).

^{296.} Id. at 455.

^{297.} See *supra* notes 6–14 and accompanying text for a discussion of the dangers associated with climate change.

^{298.} William Penn, 170 A.3d at 439.

^{299.} See PA. CONST. art. I, § 27.