

Democratizing Climate Change: Litigation for the Era of Extreme Weather

Kimberly Barnes*

TABLE OF CONTENTS

I. INTRODUCTION.....	652
II. BASIC SCIENTIFIC BACKGROUND.....	654
A. <i>What Are Greenhouse Gases (GHGs)?</i>	654
B. <i>American Climate Denial: A Brief History</i>	656
III. LEGAL BACKGROUND.....	658
A. <i>Justiciability in Federal Courts</i>	658
1. <i>Standing</i>	659
2. <i>Displacement of Federal Common Law</i>	660
3. <i>Preemption</i>	663
4. <i>Political Question</i>	663
B. <i>Industry Comparison</i>	664
1. <i>Tobacco</i>	665
2. <i>Big Pharma’s DES</i>	667
IV. LITIGATION STRATEGY.....	667
A. <i>Hypothetical Parties</i>	668
1. <i>Private Citizens as Plaintiffs</i>	668
2. <i>Carbon Majors as Defendants</i>	671
B. <i>Body of Law, Venue, and Remedy</i>	672
1. <i>Common Law and Displacement</i>	672
2. <i>Compensatory Damages</i>	676
C. <i>Causes of Action and Remedy</i>	678
1. <i>Common Law Negligence and Res Ipsa Loquitur</i>	678
2. <i>Nuisance</i>	683
V. CONCLUSION.....	684

* J.D. Candidate, University of the Pacific, McGeorge School of Law, to be conferred May 2019; B.A., Philosophy: Ethics, Politics & Law, California State University, Sacramento, 2016. Praying for the continued health and vitality of the planet we all share.

“By the law of nature these things are common to all mankind—the air, running water, the sea, and consequently the shores of the sea.”¹

I. INTRODUCTION

For decades, scientists have predicted that human-caused climate change will make natural disasters more extreme and commonplace.² Everyone contributes to climate change, but an ascertainable few have done far more to stifle debate, slow the switch to alternative energy, and raise global temperatures, making them the ideal defendants for the impending wave of climate change litigation.³

These ideal defendants, collectively referred to here as “Carbon Majors,” have been so successful that in 2019, the United States is still heavily subsidizing their operations and refusing to respond in a rational way to climate change.⁴ Given that the “point of no return” is either imminent or has already passed,⁵ and the U.S.

1. J. INST. 2.1.1.

2. *Current Extreme Weather & Climate Change: Overview*, CLIMATE COMM’N, <https://www.climatecommunication.org/new/features/extreme-weather/overview/> (last visited Nov. 4, 2017) (on file with *The University of the Pacific Law Review*); Ker Than, *Scientists: Natural Disasters Becoming More Common*, LIVE SCIENCE (Oct. 17, 2005), <https://www.livescience.com/414-scientists-natural-disasters-common.html> (on file with *The University of the Pacific Law Review*) (“According to the EM-DAT, the total natural disasters reported each year has been steadily increasing in recent decades, from 78 in 1970 to 348 in 2004.”).

3. See Dan Drollette Jr., *Just 90 Companies Are Accountable For More Than 60 Percent of Greenhouse Gases*, THE BULLETIN (Oct. 27, 2016), <https://thebulletin.org/just-90-companies-are-accountable-more-60-percent-greenhouse-gases10080> (on file with *The University of the Pacific Law Review*) (explaining how just 90 entities are responsible for 63% of all industrial carbon dioxide [CO₂] and methane emissions); and see Oliver Milman, *Oil Industry Knew of ‘Serious’ Climate Concerns More Than 45 Years Ago*, THE GUARDIAN (Apr. 13, 2016, 1:59 PM), <https://www.theguardian.com/business/2016/apr/13/climate-change-oil-industry-environment-warning-1968> (on file with *The University of the Pacific Law Review*) (reporting that in 1968, the Stanford Research Institute had warned in a report about the serious consequences of climate change, which the president of the Center for International Environmental Law claims “add[ed] to the growing body of evidence that the oil industry worked to actively undermine public confidence in climate science and in the need for climate action even as its own knowledge of climate risks was growing.”).

4. Damien Carrington, *Fossil Fuels Subsidised by \$10m a Minute, Says IMF*, THE GUARDIAN (May 18, 2015, 9:30 AM), <https://www.theguardian.com/environment/2015/may/18/fossil-fuel-companies-getting-10m-a-minute-in-subsidies-says-imf> (on file with *The University of the Pacific Law Review*) (explaining that internationally, governments spend an estimated \$10 million a minute on fossil fuels).

5. See Richard Harris, *Global Warming is Irreversible, Study Says*, NPR (Jan. 26, 2009, 4:49 PM), <https://www.npr.org/templates/story/story.php?storyId=99888903> (on file with *The University of the Pacific Law Review*) (citing NOAA: “[C]limate change is essentially irreversible.”); and see Earl J. Ritchie, *Have We Passed the Climate Change Tipping Point?*, FORBES (Mar. 16, 2017, 6:04 PM), <https://www.forbes.com/sites/uhenergy/2017/03/16/have-we-passed-the-climate-change-tipping-point/#73a9f1cb7e12> (on file with *The University of the Pacific Law Review*) (“A few years ago, 400 [ppm of CO₂] was widely cited as the tipping point for climate change. Now that we have passed that value, it has become common to say that it wasn’t really a tipping point, that it was symbolic or a milestone. Whether it’s a tipping point or a milestone, we have decisively passed it and CO₂ levels appear certain to continue higher.”); but see EarthTalk, *Have We Passed the Point of No Return on Climate Change?*, SCI. AM. (Apr. 13, 2015), <https://www.scientificamerican.com/article/have-we-passed-the-point-of-no-return-on-climate-change/> (on file with *The University of the Pacific Law Review*) (“While we may not yet have reached the ‘point of no return’—when no amount of cutbacks on greenhouse gas emissions will

Government's response is to embark on a "Road to Repeal,"⁶ climate change litigation will prove to be the most effective way to respond to the coming age of extreme weather.

Advances in climate modeling now allow scientists to calculate anthropogenic climate change's effect on the severity and frequency of natural disasters. These models provide an ascertainable nexus between the destruction of a private citizen's home by an extreme weather event, for instance, and rising temperatures.⁷ Years of data and advances in event attribution analysis also allow for quantifiable apportionment of gigatons of carbon (GtC) as emitted by individual actors in the fossil fuel industry.⁸ The amount of GtC emitted by the fossil fuel industry constitutes enough of the total anthropogenic GtC in the atmosphere to justify singling out this sector in particular.⁹ When viewed in light of the industry's intentional misconduct of suppressing climate science and preventing meaningful policy change,¹⁰ plaintiffs seeking to sue the industry have a meritorious cause of action under the common law tort theory of negligence. Further, private citizens and *not* state or local governments must litigate this issue, through the common law rather than statutes, to avoid jurisdictional barriers of environmental law, minimize political manipulation of the outcome, and ensure that private citizens themselves can be made whole.¹¹

This Comment is a drop in the bucket of numerous scholarly writings that

save us from potentially catastrophic global warming—climate scientists warn we may be getting awfully close.”).

6. "A Road to Repeal" Document, N.Y. TIMES (Feb. 4, 2017), <https://www.nytimes.com/interactive/2017/02/04/us/doc-lobby.html> [hereinafter *Road to Repeal Document*] (on file with *The University of the Pacific Law Review*).

7. John Vidal, *Storm Desmond Rainfall Partly Due to Climate Change, Scientists Conclude*, THE GUARDIAN (Dec. 10, 2015), <https://www.theguardian.com/environment/2015/dec/11/storm-desmond-rainfall-flooding-partly-due-to-climate-change-scientists-conclude> (on file with *The University of the Pacific Law Review*) (“Researchers ran climate modeling experiments and found that climate change made flooding 40% more likely.”).

8. RICHARD HEEDE, CLIMATE MITIGATION SERVS., CARBON MAJORS: ACCOUNTING FOR CARBON AND METHANE EMISSIONS 1854–2010 METHODS & RESULTS REPORT (Apr. 7, 2014), available at <http://climateaccountability.org/pdf/MRR%209.1%20Apr14R.pdf> (on file with *The University of Pacific Law Review*).

9. Dan Drollette Jr., *Just 90 Companies Are Accountable for More Than 60 Percent of Greenhouse Gases*, THE BULLETIN (Oct. 27, 2016), <https://thebulletin.org/just-90-companies-are-accountable-more-60-percent-greenhouse-gases10080> (on file with *The University of the Pacific Law Review*) (explaining how just 90 entities are responsible for 63% of all industrial CO₂ and methane emissions).

10. See Oliver Milman, *Oil Industry Knew of 'Serious' Climate Concerns More Than 45 Years Ago*, THE GUARDIAN (Apr. 13, 2016, 1:59 PM), <https://www.theguardian.com/business/2016/apr/13/climate-change-oil-industry-environment-warning-1968> (on file with *The University of the Pacific Law Review*) (explaining that the Stanford Research Institute presented a report about the serious consequences of climate change in 1968, which the president of the Center for International Environmental Law claims “add[ed] to the growing body of evidence that the oil industry worked to actively undermine public confidence in climate science and in the need for climate action even as its own knowledge of climate risks was growing.”).

11. See *infra* Parts IV.A–B.

parse out the concept of climate change litigation.¹² Yet recent developments, the magnitude of harm involved in climate change, and the risk that issue preclusion will prohibit novel and effective theories of recovery, all merit an updated discussion of the legal remedies available.¹³ Importantly, the legal analysis concerning the most fundamental issue for climate litigants—displacement and preemption by federal air quality laws—may be altered by the current Administration’s retreat from the area it supposedly occupies, i.e. the area of greenhouse gas regulation.¹⁴

Part II provides a brief scientific overview of the basic principles of climate change¹⁵ and a short summary of how political bribery by the fossil fuel industry and other U.S. Government inaction has concealed and muddied the scientific evidence.¹⁶ Part III discusses the legal background of environmental litigation,¹⁷ and then uses a comparative approach to assess the successes and failures of litigation with other, non-environmental industries like tobacco and pharmaceuticals.¹⁸ Part IV uses the principles delineated from the prior sections to develop a coherent litigation strategy that can avoid the barriers facing similarly situated plaintiffs.¹⁹

II. BASIC SCIENTIFIC BACKGROUND

This Part lays out the basic principles of climate change, beginning in Section A with an explanation of the vital role greenhouse gases play in regulating climate.²⁰ Section B summarizes the political history of climate change—that is, the rejection of scientific projection through misinformation, concealment, and political bribery.²¹

A. *What Are Greenhouse Gases (GHGs)?*

The terms “global warming” or “climate change” refer to the accelerated rate at which the planet is heating up due to the accumulation of greenhouse gases

12. Mary Christina Wood & Dan Galpern, *Atmospheric Recovery Litigation: Making the Fossil Fuel Industry Pay to Restore a Viable Climate System*, 45 ENVTL. L. 259 (2015); David A. Grossman, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Litigation*, 28 COLUM. J. ENVTL. L. 1 (2003); David Hunter & James Salzman, *Negligence in the Air: The Duty of Care in Climate Change Litigation*, 155 U. PA. L. REV. 1741, 1757 (2007).

13. *Infra* Part IV.

14. *See infra* Part IV.B.1.

15. *Infra* Part II.

16. *Infra* Part II.B.

17. *Infra* Part III.

18. *Infra* Part III.B.

19. *Infra* Part IV.

20. *Infra* Part II.A.

21. *Infra* Part II.B.

(GHGs) in the atmosphere.²² GHGs—including carbon dioxide (CO₂), methane (CH₄), ozone (O₃), and water vapor (H₂O)—absorb sun rays reflecting off Earth’s surface and then reflect them back. This traps heat in the atmosphere like the walls of a greenhouse.²³ Large amounts of greenhouse gases are present in the atmosphere naturally; animals (including humans) release CO₂ when breathing,²⁴ volcanic eruptions release anywhere up to 440 million tons of CO₂ a year,²⁵ and water vapor is always present in the atmosphere through evaporation of Earth’s surface water.²⁶ Having been regulated by photosynthetic and other natural processes up until the industrial era,²⁷ anthropogenic (human-caused) events have rapidly increased concentrations of GHGs in the atmosphere causing accelerated warming of the Earth’s surface and oceans.²⁸

Scientists predict that the rapid *rate* at which the temperature is rising will cause devastating global impacts; i.e., if we continue to pump carbon into the air, which has a linear relationship to temperature, we can expect the climate to deviate from its normal range as regulated by natural processes, and start acting in a more extreme, chaotic fashion.²⁹ Giving credence to this notion, a National Oceanic and Atmospheric Administration (NOAA) report stated:

The years 2017 and 2016 each had a historically high number of billion-dollar disasters that impacted the U.S. (16 and 15 events, respectively). However, in 2017, the U.S. experienced a rare combination of high disaster frequency, disaster cost, and diversity of weather and climate extreme events.³⁰

22. Amanda MacMillan, *Global Warming 101*, NAT. RES. DEF. COUNCIL (Mar. 11, 2016), <https://www.nrdc.org/stories/global-warming-101> (on file with *The University of the Pacific Law Review*).

23. *What Are Greenhouse Gases?*, NAT’L CTRS FOR ENVTL. INFO., <https://www.ncdc.noaa.gov/monitoring-references/faq/greenhouse-gases.php> (last visited Nov. 10, 2017) (on file with *The University of the Pacific Law Review*).

24. *Food Factories*, LEGACY PROJECT, <http://www.legacyproject.org/activities/foodfactories.html> (last visited Nov. 4, 2017) (on file with *The University of the Pacific Law Review*).

25. *Volcanic Gases Can Be Harmful to Health, Vegetation and Infrastructure*, U.S. GEOLOGICAL SURV., <https://volcanoes.usgs.gov/vhp/gas.html> (last visited Nov. 10, 2017) (on file with *The University of the Pacific Law Review*).

26. *What Are Greenhouse Gases?*, *supra* note 23.

27. *Id.*

28. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: SYNTHESIS REPORT (Rajendra K.R Pachauri & Leo Meyer eds., 2014), available at http://www.ipcc.ch/pdf/assessmentreport/ar5/syr/AR5_SYR_FINAL_SPM.pdf (on file with *The University of the Pacific Law Review*) (“Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history.”).

29. *Carbon Emissions Linked to Global Warming in Simple Linear Relationship*, SCI. DAILY, <https://www.sciencedaily.com/releases/2009/06/090610154453.htm> (last visited Jan. 6, 2018) (on file with *The University of the Pacific Law Review*).

30. Adam B. Smith, *2017 U.S. Billion-Dollar Weather and Climate Disasters: A Historic Year in Context*, NAT’L OCEANOGRAPHIC ATMOSPHERIC ADMIN. (Jan. 8, 2018), <https://www.climate.gov/news-features/blogs/beyond-data/2017-us-billion-dollar-weather-and-climate-disasters-historic-year> (on file with *The*

Among other factors such as an “increase in population and material wealth,” NOAA attributed this trend to climate change, which, it noted “[increases] vulnerability to drought, lengthen[s] wildfire seasons and the potential for extremely heavy rainfall and inland flooding events.”³¹

B. American Climate Denial: A Brief History

Drought, wildfire, and increased flooding are verifiable effects of climate change that will continue to occur given our current understanding of physics and chemistry.³² In addition, the ability to predict how rising temperatures will destabilize the climate and cause more extreme weather patterns has existed for decades without any serious disagreement.³³

Yet these well-established scientific findings have not been consistently accepted and reacted to accordingly.³⁴ For example, scientists and politicians alike decried the Bush Administration’s handling of climate science in what the Union of Concerned Scientists characterized as “manipulation, suppression, and misrepresentation of science.”³⁵ After President Barack Obama took office, the oil and gas sector’s lobbying expenditures broke records.³⁶ A study of campaign spending found that the four largest 501(c)(4) groups (including the American Energy Alliance, David Koch’s Americans for Propensity, and Karl Rove’s Crossroads GPS) spent nearly \$30 million on campaign ads, 85 percent of which contained at least one deceptive claim.³⁷

University of the Pacific Law Review).

31. *Id.*

32. Thomas C. Peterson, William M. Connolley & John Fleck, *The Myth of the 1970s Global Cooling Scientific Consensus*, AM. METEOROLOGICAL SOC’Y 1328 (Sept. 2008), available at <http://journals.ametsoc.org/doi/pdf/10.1175/2008BAMS2370.1> (on file with *The University of the Pacific Law Review*).

33. *Id.* (explaining how in 1975, newly developed climate modeling technology was able to lead to the “resounding” conclusion that global warming existed).

34. See, e.g., *Investigating the Bush Administration’s Misuse of Science*, MIT W. HEMISPHERE PROJECT, <http://web.mit.edu/hemisphere/events/bushscience.shtml> (last visited Jan. 6, 2018) (on file with *The University of the Pacific Law Review*).

35. *Id.* The findings of the Union of Concerned Scientists were as follows:

(1) High-ranking political appointees in the Bush Administration have repeatedly suppressed & distorted scientific findings, with adverse consequences for human health, public safety, & community well-being. (2) The federal government’s scientific advisory system has been manipulated to prevent the appearance of advice that might embarrass the Administration or stand in the way of its political agenda. (3) The Administration imposes restrictions on what government scientists can say or write about “sensitive” topics. And (4) The scope & scale of the manipulation, suppression, & misrepresentation of science by the Bush Administration appears to be unprecedented.

Id.

36. Anne C. Mulkern, *Oil and Gas Interests Set Spending Record for Lobbying in 2009*, N.Y. TIMES (Feb. 2, 2010), <http://www.nytimes.com/gwire/2010/02/02/02greenwire-oil-and-gas-interests-set-spending-record-for-1-1504.html?pagewanted=all> (on file with *The University of the Pacific Law Review*) (noting how Big Oil spent “at least \$154 million on lobbying,” which was up 16 percent from the previous year).

37. *High Percent of Presidential Ad Dollars of Top Four 501(c)(4)s Backed Ads Containing Deception*,

Today, the Trump Administration's Environmental Protection Agency (EPA) Administrator, Scott Wheeler (a former coal lobbyist) does not consider climate change to be a top priority.³⁸ This Administration has aggressively pursued deregulation of corporate polluters through executive action,³⁹ withdrawal from the Paris Climate Accord, and appointment of EPA Administrators who do not recognize the urgent need for immediate reduction of CO₂.⁴⁰

Political manipulation has successfully perpetuated an anti-science aura within the United States; in fact, a Gallup poll revealed that only 42% of Republicans believe that the scientific community agrees about climate change—an 11 point drop from when Trump took office in 2017.⁴¹ Thus, there is a long history of opposition to climate change science by both the U.S. Government and the massively profitable Carbon Majors that have shaped policy directly and confused the public.⁴²

Because this dysfunctional government and confused public has precluded the necessary policy changes, extreme weather events such as the California wildfires, and Hurricanes Maria, Irma, and Harvey will only become progressively worse.⁴³ It is unclear when proportional action will be taken, particularly when legislators continue to gut numerous regulations aimed at reducing coal emissions, water pollution, and methane on the Road to Repeal.⁴⁴ In the interim, private citizens should use the court system to protect themselves financially in the wake of more extreme weather.⁴⁵

Annenberg Study Finds, ANNENBERG PUB. POL'Y CTR. (June 20, 2012), <https://www.annenbergpublicpolicycenter.org/high-percent-of-presidential-ad-dollars-of-top-four-501c4s-backed-ads-containing-deception-annenberg-study-finds/> (on file with *The University of the Pacific Law Review*) (“From December 1, 2011 through June 1, 2012, the four top presidential campaign spending 501(c)(4)s spent an estimated \$24.9 million (\$24,916,690) of their \$29.3 million (\$29,320,110) presidential ad dollars on ads containing deceptions.”).

38. Amy Gunia, *EPA Chief Says Climate Change Is Not His Top Priority*, TIME (Apr. 12, 2019), <http://time.com/5569214/epa-chief-andrew-wheeler-climate-change/> (on file with *The University of the Pacific Law Review*) (noting how Wheeler expressed doubt over studies indicating the urgent need for climate action).

39. *Road to Repeal Document*, *supra* note 6.

40. Eric Lipton, *Energy Firms in Secretive Alliance with Attorneys General*, N.Y. TIMES (Dec. 6, 2014), <https://www.nytimes.com/2014/12/07/us/politics/energy-firms-in-secretive-alliance-with-attorneys-general.html> (on file with *The University of the Pacific Law Review*); Brad Plumer, *Scott Pruitt, E.P.A. Chief, Rented Residence From Wife of Energy Lobbyist*, N.Y. TIMES (Mar. 30, 2018), <https://www.nytimes.com/2018/03/30/climate/scott-pruitt-epa-rental.html> (on file with *The University of the Pacific Law Review*).

41. Megan Brenan & Lydia Saad, *Global Warming Concern Steady Despite Some Partisan Shifts*, GALLOP (Mar. 28, 2018), <http://news.gallup.com/poll/231530/global-warming-concern-steady-despite-partisan-shifts.aspx?version=print> (on file with *The University of the Pacific Law Review*).

42. Gunia, *supra* note 38; Robinson Meyer, *Trump's EPA Chief Denies the Basic Science of Climate Change*, THE ATLANTIC (Mar. 9, 2017), <https://www.theatlantic.com/science/archive/2017/03/trumps-epa-chief-rejects-that-carbon-dioxide-emissions-cause-climate-change/519054/> (on file with *The University of the Pacific Law Review*) (quoting Scott Pruitt: “[T]here’s ‘tremendous disagreement about the degree of [CO₂]’s impact [on the climate] . . . I would not agree that it’s a primary contributor to the global warming that we see.”).

43. CLIMATE COMM’N, *supra* note 2; Than, *supra* note 2 (“According to the EM-DAT, the total natural disasters reported each year has been steadily increasing in recent decades, from 78 in 1970 to 348 in 2004.”).

44. *Road to Repeal Document*, *supra* note 6.

45. See *infra* Part IV.A.1 (discussing private citizens’ role in climate change litigation).

III. LEGAL BACKGROUND

Sufferers of environmental harm tend to have limited options in pursuing redress.⁴⁶ Most environmental statutes like the Clean Water Act (CWA) and Clean Air Act (CAA) have citizen suit provisions written directly into the statute,⁴⁷ allowing private citizens to sue persons in violation of the Act,⁴⁸ or the governmental agency charged with implementing it.⁴⁹ Plaintiffs can also challenge agency action under the Administrative Procedure Act (APA), which generally gives any person who has “suffer[ed] legal wrong” or was “adversely affected or aggrieved by agency action” the ability to file suit directly with a district court.⁵⁰ Either way, plaintiffs seeking redress in any court—even when there are statutory mechanisms for such a suit—are constrained by the justiciability problem.⁵¹

This Part begins by discussing the problems of justiciability in environmental litigation.⁵² Section B then looks outside environmental law, namely to the tobacco and pharmaceutical industries, to identify areas that plaintiffs damaged by extreme weather can borrow from in shaping an ideal litigation strategy.⁵³

A. *Justiciability in Federal Courts*

The justiciability doctrine encompasses the various requirements that limit a court’s ability to hear a particular case.⁵⁴ It carries prudential and pragmatic requirements designed to prevent judicial encroachment into matters reserved to other political branches.⁵⁵ As a general matter, this requirement involves

46. Jonathan H. Adler, *Stand or Deliver: Citizen Suits, Standing, and Environmental Protection*, 12 DUKE ENVTL. L. & POL’Y F. 39, 40 (2001).

47. *Id.* at 42.

48. *See, e.g.*, 33 U.S.C.A. § 1365(a)(1) (Westlaw through Pub. L. No. 115-140) (granting the right to sue “any person . . . who is alleged to be in violation of [this Act].”).

49. *See, e.g., id.* § 1365(a)(2) (granting the right to sue the “Administrator where there is alleged a failure of the Administrator to perform any act or duty under this [Act] which is not discretionary with the Administrator.”).

50. 5 U.S.C.A. § 702 (Westlaw through Pub. L. No. 115-140).

51. *See infra* Part III.A.

52. *Infra* Part III.A.

53. *Infra* Part III.B.

54. *Justiciability*, BLACK’S LAW DICTIONARY (10th ed. 2014) (defining justiciability as “the quality, state, or condition of being appropriate or suitable for adjudication by a court”).

55. *See Allen v. Wright*, 468 U.S. 737, 750 (1984) (quoting *Vander Jagt v. O’Neill*, 699 F.2d 1166, 1178 (D.C. Cir. 1983)).

All of the doctrines that cluster about Article III—not only standing but mootness, ripeness, political question, and the like—relate in part, and in different though overlapping ways, to an idea, which is more than an intuition but less than a rigorous and explicit theory, about the constitutional and prudential limits to the powers of an unelected, unrepresentative judiciary in our kind of government.

Id.

consideration of the pertinent legal issues,⁵⁶ involved parties,⁵⁷ and timing of the case.⁵⁸ These requirements will differ according to the desired jurisdiction; as such, a case that is justiciable in a state court may not be justiciable in federal courts.⁵⁹

Subsection 1 discusses the aspect of justiciability focused on “who” is bringing the lawsuit, known as the Standing Doctrine.⁶⁰ Subsections 2, 3, and 4 then address those aspects focused on the underlying legal issues involved—the displacement of federal common law,⁶¹ preemption,⁶² and the political question doctrine,⁶³ respectively.

1. Standing

The U.S. Constitution limits the jurisdiction of federal courts,⁶⁴ permitting only those lawsuits brought by plaintiffs who have “standing to sue.” This standard will bar plaintiffs who cannot show: (1) an “injury in fact” that is “concrete and particularized” and “actual or imminent;” (2) “a causal connection between the injury and the conduct complained of;” and (3) a likelihood “that the injury will be redressed by a favorable decision.”⁶⁵ This has prevented various environmental harm claims from proceeding on the merits, typically for failure to meet the causation element.⁶⁶ States acting as plaintiffs, on the other hand, appear to have a

56. See *Powell*, 395 U.S. at 512–13 (“A federal district court lacks jurisdiction over the subject matter (1) if the cause does not ‘arise under’ the federal Constitution, laws, or treaties (or fall within one of the other enumerated categories of U.S. Const. Art. III); or (2) if it is not a ‘case or controversy’ within the meaning of that phrase in Art. III; or (3) if the cause is not one described by any jurisdictional statute.”).

57. See *Wright*, 468 U.S. at 739, 751 (describing the standing doctrine as encompassing “several judicially self-imposed limits on the exercise of federal jurisdiction, such as the general prohibition on a litigant’s raising another person’s legal rights, the rule barring adjudication of generalized grievances more appropriately addressed in the representative branches, and the requirement that a plaintiff’s complaint fall within the zone of interests protected by the law invoked . . . [The core component is] the plaintiff must allege personal injury fairly traceable to the defendant’s allegedly unlawful conduct and likely to be redressed by the requested relief.”).

58. See *Powell v. McCormack*, 395 U.S. 486, 496 (1969) (explaining that a case will become “moot” when “the issues presented are no longer ‘live’ or the parties lack a legally cognizable interest in the outcome”).

59. See *Wright*, 468 U.S. at 750 (suing in federal court requires Article III standing).

60. *Infra* Part III.A.1.

61. *Infra* Part III.A.2.

62. *Infra* Part III.A.3.

63. *Infra* Part III.A.4.

64. U.S. CONST. art. III, § 2, cl. 1.

The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States . . . to Controversies to which the United States shall be a Party . . . between two or more States; between a State and Citizens of another State; between Citizens of different States; between citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

Id.

65. *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61 (1992).

66. See, e.g., *Wash. Envtl. Council v. Bellon*, 732 F.3d 1131, 1143–44 (9th Cir. 2013). In finding the plaintiffs lacked standing to compel the state’s EPA to regulate the state’s oil refineries, the court noted:

[I]t is not possible to quantify a causal link, in any generally accepted scientific way, between GHG

significant upper hand in establishing Article III standing as a result of their “quasi-sovereign interests,”⁶⁷ but as is argued herein, private citizens should still undertake this litigation on their own behalf.

In essence, it is the global and nebulous nature of climate-related claims that has prevented plaintiffs from establishing the causation needed for standing.⁶⁸ As will be discussed in Part IV,⁶⁹ judicial hesitation to apportion liability is now belied by accurate methods to attribute GHG emissions to particular actors. Nonetheless, even recognizing event attribution analyses as a means of establishing causation can speak only to the “who” aspect of justiciability—whether the plaintiff has standing to sue in federal courts.⁷⁰

2. *Displacement of Federal Common Law*

The “what” aspect (which claims a plaintiff can pursue) is similarly contentious by virtue of the statutory framework already in place,⁷¹ and the exceedingly political nature of environmental law in general.

Codification of environmental law occurred relatively recently and virtually all at once; in an eco-conscious fervor, laws passed in the 1970’s included the Clean Air Act (CAA),⁷² the Clean Water Act (CWA),⁷³ and the National Environmental Policy Act (NEPA).⁷⁴ Various wakeup calls helped shift the American zeitgeist to garner the requisite political capital: pollution was so severe that rivers caught fire,⁷⁵ and city smog became so poisonous it killed dozens.⁷⁶

emissions from any single oil refinery in Washington, or the collective emissions of all five oil refineries located in Washington, and direct, indirect or cumulative effects on global climate change in Washington or anywhere else.

Id.

67. See *Cal. v. Gen. Motors Corp.*, No. C06-05755 MJJ, 2007 U.S. Dist. LEXIS 68547, at *3 (N.D. Cal. Sept. 17, 2007) (“Congress has . . . recognized a concomitant procedural right to challenge the rejection of its rulemaking petition as arbitrary and capricious. Given that procedural right and Massachusetts’ stake in protecting its quasi-sovereign interests, the Commonwealth is entitled to special solicitude in our standing analysis” (internal citations omitted)).

68. *Bellon*, 732 F.3d at 1144.

69. *Infra* Part IV.

70. See *infra* Part III.A.2.

71. See, e.g., Clean Air Act of 1970, 42 U.S.C.A. § 7401 (Westlaw through Pub. L. No. 115-140) (representing one federal law that could potentially preclude climate change claims on preemption grounds).

72. 42 U.S.C.A. §§ 7401–7671q (Westlaw through Pub. L. No. 115-140).

73. 33 U.S.C.A. §§ 1251–1388 (Westlaw through Pub. L. No. 115-140).

74. 42 U.S.C.A. §§ 4321–4370m (Westlaw through Pub. L. No. 115-140).

75. Jennifer Latson, *The Burning River that Sparked a Revolution*, TIME (June 22, 2015), <http://time.com/3921976/cuyahoga-fire/> (on file with *The University of the Pacific Law Review*) (commemorating the anniversary of Cleveland’s Cuyahoga River bursting into flames on June 22, 1969, and noting how it sparked the passage of the Clean Water Act).

76. Ann Murray, *Smog Deaths in 1948 Led to Clean Air Laws*, NPR (Apr. 22, 2008, 9:43 AM), <https://www.npr.org/templates/story/story.php?storyId=103359330> (on file with *The University of the Pacific Law Review*) (detailing the events of October 27, 1948, where 20 people died and “half the town was sick” as a

However, this legislative framework—at least in the context of climate change litigation—operates as more of an obstacle than a crutch for plaintiffs.⁷⁷ Importantly, the CAA, as well as relevant state iterations of the same, have caused several cases to fail as a result of displacement.⁷⁸

Federal courts' ability to create common law has been constrained by the fundamental understanding of *Erie*, namely that substantive law, unless in the form of federal statute or constitutional directive, should be fashioned by the states.⁷⁹ The *Erie* Doctrine suggests that federal common lawmaking is warranted only in rare situations, and must relate to matters within “national legislative power where Congress has so directed or where the basic scheme of the Constitution so demands.”⁸⁰ To wit: “issues of national concern.”⁸¹ It is no longer true that there “is no federal common law;”⁸² there is, and it includes matters of “air and water in their ambient or interstate aspects.”⁸³ Thus, for matters pertaining to climate change, federal common law can only be fashioned where Congress has “not spoken to a particular issue.”⁸⁴

The CAA established a comprehensive scheme for the national regulation of hazardous air pollutants,⁸⁵ motor vehicle emissions,⁸⁶ and the promulgation of ambient air quality standards.⁸⁷ The Act requires the EPA administrator to set “standards applicable to the emission of any air pollutant from . . . new motor vehicles . . . which in [the Administrator’s] judgment cause[s], or contribute[s] to, air pollution . . . reasonably . . . anticipated to endanger public health or welfare.”⁸⁸ Further, although states generally cannot regulate new motor vehicle emissions⁸⁹ and their standards cannot be “less stringent” than those set out federally,⁹⁰ the CAA gives states the “primary responsibility” for “assuring air quality within the

result of industrial pollution).

77. Adler, *supra* note 46, at 84.

78. See *Am. Elec. Power Co., Inc. v. Conn.*, 131 S. Ct. 2527, 2537 (2011) (finding the federal common law displaced plaintiff’s claims seeking abatement).

79. *Erie R.R. v. Tompkins*, 304 U.S. 64 (1938).

80. *Am. Elec. Power Co. v. Conn.*, 564 U.S. 410, 421 (2011) (citing Henry J. Friendly, *In Praise of Erie—And of the New Federal Common Law*, 39 N.Y.U. L. REV. 383, 408 n. 119, 421–22 (1964) (internal quotation marks omitted)).

81. Henry J. Friendly, *In Praise of Erie—And of the New Federal Common Law*, 39 N.Y.U. L. REV. 383, 405 (1964).

82. *Erie*, 304 U.S. at 78.

83. *Ill. v. City of Milwaukee*, 406 U.S. 91, 103 (1972).

84. *Milwaukee v. Ill.*, 451 U.S. 304, 313 (1981).

85. CAA, 42 U.S.C.A. §§ 7401, 7412 (Westlaw through Pub. L. No. 115-140).

86. *Id.* § 7521; *Nat’l Audubon Soc’y v. Dept. of Water*, 869 F.2d 1196, 1202 (9th Cir. 1988).

87. *Id.* §§ 7408–7409.

88. *Id.* § 7521(a)(1).

89. *Id.* § 7543 (“No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part.”).

90. *Id.* § 7416.

entire geographic area comprising such state.”⁹¹

Massachusetts v. EPA confirmed that GHGs fit within the Act’s “capacious definition of air pollutant,” and as a result, held that the CAA authorizes the EPA to regulate them.⁹² This led the Supreme Court to conclude that Congress had “directly addressed the issue of domestic greenhouse gas emissions ... [and] therefore displaced federal common law” in *American Electric Power Co., Inc. v. Connecticut (AEP)*.⁹³

In *AEP*, eight states, New York City, and several land trusts sued in federal district court seeking to put an emissions cap on five of the state’s largest CO₂ emitters, to be reduced annually, under a federal common law public nuisance theory.⁹⁴ The Supreme Court refused to do so, citing the CAA’s occupation of the field of GHG regulation, which it said displaced plaintiffs’ federal common law nuisance claims.⁹⁵

Interestingly, the EPA had not yet begun exercising its regulatory authority over GHGs at the time the *AEP* lawsuit was filed.⁹⁶ As such, the plaintiffs argued that there could not be displacement, seeing as the EPA never actually regulated GHGs.⁹⁷ The Court rejected this argument, explaining it was the mere *fact* of occupation, not the *manner* of occupation, that comprises the test for displacement.⁹⁸ In other words, if Congress enacted a law pertaining to GHG regulation, it is inconsequential (for displacement purposes) if the agency charged with issuing those regulations refuses to do so.⁹⁹ Since *AEP*, lawsuits revolving around GHGs have struggled to get past displacement.¹⁰⁰

91. *Id.* § 7407(a).

92. 549 U.S. 497 (2007).

93. *Am. Elec. Power Co., Inc. v. Conn.*, 131 S. Ct. 2527, 2537 (2011) (holding *Massachusetts v. EPA* determined that Congress “had spoken directly to the issue” of greenhouse gas emission by empowering the EPA to regulate them under the CAA).

94. *Id.* at 2534–37.

95. *Id.* at 2537 (“[T]he Clean Air Act and the EPA actions it authorizes displace any federal common law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired power plants.”).

96. *Id.*

97. *Id.*

98. *See id.* (responding to plaintiffs’ argument that the EPA had not displaced the field of regulation because it had not begun regulating GHGs: “Although EPA has not yet done precisely what plaintiffs demand here . . . that is not the relevant test . . . The question is whether the field has been occupied, not whether it has been occupied in a particular manner.”).

99. This, of course, is not to say that the agency would be immune from challenges alleging arbitrary and capricious agency inaction. *See* Administrative Procedure Act, 5 U.S.C.A. § 706 (Westlaw through Pub. L. No. 115-140) (providing a general measure for invalidating agency action deemed arbitrary and capricious); *and see* 42 U.S.C.A. § 7607 (Westlaw through Pub.L.No. 115–140) (providing for invalidation of arbitrary and capricious action in the specific context of the Clean Air Act).

100. *See Am. Elec. Power Co., Inc. v. Conn.*, 131 S. Ct. 2527, 2537 (2011) (holding that the public nuisance action against five of the “largest emitters of carbon dioxide in the United States” was displaced by the Clean Air Act and the “EPA actions it authorizes”); *see also Middlesex Cty. Sewerage Auth. v. Nat’l Sea Clammers Ass’n*, 453 U.S. 1, 4 (1981) (finding that a public nuisance claim for the damage caused to fishing grounds by dumping sewage in the ocean was displaced by the Federal Water Pollution Control Act).

3. Preemption

The issue of preemption is relevant because of *Milwaukee I*, which held that interstate water pollution required “uniform federal standards” and was therefore a matter for federal law.¹⁰¹ The “implicit corollary” to this conclusion was that the varying state common law claims over the interstate water pollution were preempted.¹⁰² A few years later, the Supreme Court clarified that this did not apply to the common law of the pollution’s source state regarding intrastate water pollution. In other words, plaintiffs could only use state common law to sue water polluters within their own state, and federal common law would govern if the polluters were from other states.¹⁰³

Although *Milwaukee’s I–III* involved the CWA and interstate water pollution,¹⁰⁴ courts have said that the preemption and displacement analyses would be identical for the CAA and interstate air pollution.¹⁰⁵ Thus, as long as the suit does not involve air pollution that is interstate, the CAA does not preempt “the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution.”¹⁰⁶ Put differently, the CAA does not preempt claims at common law under the source state for intrastate pollution.¹⁰⁷

4. Political Question

A fourth challenge facing environmental plaintiffs is the highly political nature of environmental regulation.¹⁰⁸ Yet even a political case will not pose a nonjusticiable political question if “the duty asserted can be judicially identified and its breach judicially determined, and . . . protection for [that right] . . . judicially molded.”¹⁰⁹ Specifically, nonjusticiable political questions will arise if

101. *Ill. v. City of Milwaukee*, 406 U.S. 91, 105 (1972).

102. *Id.* at 105 n.6 (seeking to enjoin the City of Milwaukee from discharging sewage into Lake Michigan); *see Tex. Industries, Inc. v. Radcliff Materials, Inc.*, 451 U.S. 630, 641 (1981) (“Federal common law and not the varying common law of the individual States is, we think, entitled and necessary to be recognized as a basis for dealing in uniform standard with the environmental rights of a State against improper impairment by sources outside of its domain.”).

103. *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 498–99 (1987).

104. *Ill. v. City of Milwaukee*, 406 U.S. 91, 105 n.6 (1972) (*Milwaukee I*); *City of Milwaukee v. Ill. and Mich.*, 451 U.S. 304 (1981) (*Milwaukee II*); *Ill. v. City of Milwaukee*, 731 F.2d 403 (1984) (*Milwaukee III*).

105. *See Merrick v. Diageo Ams. Supply, Inc.*, 805 F.3d 685, 695 (6th Cir. 2015) (“What was true for the Clean Water Act holds true for the Clean Air Act.”).

106. *Id.* at 688.

107. *Id.* at 695 (“There is no basis in the Clean Air Act on which to hold that the source state common law claims of plaintiffs are preempted.”).

108. *See Am. Elec. Power Co., Inc. v. Conn.*, 131 S. Ct. 2527, 2537 (2011) (saying that plaintiffs’ nuisance claims were presenting nonjusticiable political questions).

109. *Baker v. Carr*, 369 U.S. 186, 198 (1962).

one of the following formulations is “inextricable”¹¹⁰ from the case:

(1) a textually demonstrable constitutional commitment of the issue to a coordinate political department; (2) a lack of judicially discoverable and manageable standards for resolving it; (3) the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; (4) the impossibility of a court’s undertaking independent resolution without expressing lack of the respect due coordinate branches of the government; (5) an unusual need for unquestioning adherence to a political decision already made; or (6) the potentiality of embarrassment from multifarious pronouncements by various departments on one question.¹¹¹

In areas of environmental litigation, courts have said that the third factor—the “impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion”—is most relevant.¹¹² For instance, when the Supreme Court evaluated the plaintiffs’ nuisance claims in *AEP*, it remarked that adjudication would require “an initial policy decision in deciding whether there has been an unreasonable interference with a right common to the general public.”¹¹³ This, it said, turned on a complicated balancing of interests that was reserved to a coordinate branch.¹¹⁴ However, as will be discussed below,¹¹⁵ use of common law negligence—for which the legal duty is relative to the reasonableness of the risk created to the plaintiff¹¹⁶—is less likely to require a policy determination about what level of GHGs in the atmosphere is reasonable.

B. Industry Comparison

Several commentators have speculated that the looming threat of a climate breakdown will lead to a rebirth of the creative litigation used throughout the waves of the tobacco litigation.¹¹⁷ Subsection 1 examines those waves to determine

110. *Id.* at 217.

111. *Vieth v. Jubelirer*, 541 U.S. 267, 277–78 (2004) (quoting *Baker v. Carr*, 369 U.S. 186, 217 (1962)).

112. *See* *Cal. v. Gen. Motors Corp.*, No. C06-05755 MJJ, 2007 U.S. Dist. LEXIS 68547, at *17 (N.D. Cal. Sept. 17, 2007) (“Although several of the Baker indicators support the Court’s conclusion that Plaintiff’s current claims raise non-justiciable political questions, the third indicator is most relevant on the current record.”); *see also* *Conn. v. Am. Elec. Co., Inc.*, 406 F. Supp. 2d 265, 272 (S.D.N.Y. 2005) (focusing on the third *Baker* factor).

113. *Id.* at *23 (quoting *In re Oswego Barge Corp.*, 664 F.2d 327, 332 n.5 (2d Cir. 1981) (citations omitted)).

114. *Id.* at *24.

115. *See infra* Part IV.C.1.

116. *See Palsgraf v. Long Island R. Co.*, 248 N.Y. 339, 345 (1928) (“Negligence, like risk, is thus a term of relation.”).

117. *See, e.g.*, Kurtis Alexander, *Suing Big Oil Over Climate Change, Santa Cruz Eyes Wildfire, Storm Costs*, S.F. GATE (Dec. 20, 2017), <http://www.sfgate.com/news/article/Suing-Big-Oil-over-climate-change-Santa-Cruz-12445020.php> (on file with *The University of the Pacific Law Review*) (“The city and county of Santa

what lessons can translate to a hypothetical climate change plaintiff.¹¹⁸ Subsection 2 then examines another era of litigation involving the infamous DES medication.¹¹⁹

1. Tobacco

Tobacco litigation in the United States took place in three conceptual waves; the first two span from approximately 1954 to 1995.¹²⁰ Wave One (1954–1962)¹²¹ commenced after various publications revealed a link between cigarette smoking and cancer. However, due to the aggressive defense put up by Big Tobacco, decades went by without meaningful discovery or adjudication on the merits.¹²² During this time, about 95 percent of all lawsuits against Big Tobacco were dropped.¹²³ Substantively, the lawsuits failed to show causation between cigarettes and lung cancer because a lack of consensus existed over the health effects of smoking.¹²⁴ For example, in 1963, the Fifth Circuit Court of Appeals rejected a plaintiff widower's claims of breach of implied warranty and negligence against defendant tobacco companies.¹²⁵ Explaining why the plaintiff failed to establish a causal connection between the cigarettes and her late husband's cancer, the court stated: "[T]he manufacturer had no opportunity to gain knowledge, or to form a judgment as to the dangerous qualities of the product. The manufacturer was in no

Cruz have joined a growing number of communities suing oil companies over climate change, alleging a plot in which the fossil fuel industry concealed the dangers of its products from consumers, much like the tobacco industry did decades ago"); *see also* Sebastian Malo, *Hurricane Harvey's Aftermath Could See Pioneering Climate Lawsuits*, REUTERS (Sept. 5, 2017, 10:42 AM), <https://www.reuters.com/article/us-storm-harvey-climatechange/hurricane-harveys-aftermath-could-see-pioneering-climate-lawsuits-idUSKCN1BG2NI> (on file with *The University of the Pacific Law Review*) (saying that the culmination of the tobacco litigation suits resulted from the "consensus built around the scientific finding that an increased likelihood of lung cancer could be attributed to smoking.").

118. *Infra* Part IV.B.1.

119. *Infra* Part IV.B.2.

120. Stephen E. Smith, "Counterblastes" to Tobacco: Five Decades of North American Tobacco Litigation, 14 WINDSOR REV. LEG. & SOC. ISSUES 1, 6 (2002).

121. *Id.*

122. *Id.*

123. W.E. Townsley & D.K. Hanks, *The Trial Court's Responsibility to Make Cigarette Disease Litigation Affordable and Fair*, 25 CAL W. L. REV. 275, 277 (1989)

[Tobacco companies] have [forced plaintiffs to drop lawsuits] by taking exceedingly lengthy oral depositions of plaintiffs and by gathering, through written deposition, every scrap of paper ever generated about a plaintiff, from cradle to grave. And they have done it by taking endless depositions of plaintiffs, expert witnesses, and by naming multiple experts of their own for each specialty, such as pathology, thereby putting plaintiffs' counsel in the dilemma of taking numerous expensive depositions or else not knowing what the witness intends to testify to at trial. And they have done it by taking dozens and dozens of oral depositions, all across the country, of trivial fact witnesses, particularly in the final days before trial.

Id.

124. Smith, *supra* note 120, at 8.

125. *Lartigue v. R.J. Reynolds Tobacco Co.*, 317 F.2d 19, 22 (5th Cir. 1963).

better position than the consumer.”¹²⁶ This argument later became ineffective as consensus developed around the objective dangers of smoking.¹²⁷

Wave Two was ultimately as unsuccessful as Wave One, despite there being a greater willingness by plaintiffs’ lawyers to spend substantial resources in litigation during this time.¹²⁸ Based on Big Tobacco’s argument that smokers assumed the risk of smoking with full knowledge of its danger, courts found that the Cigarette Acts, a federal law establishing labeling requirements and warnings for tobacco products, preempted any claims against manufacturers.¹²⁹

By and large, the theories of recovery used in these two waves were rooted in negligence and were easily rebuffed by Big Tobacco’s hard push to keep the focus on personal responsibility.¹³⁰ However, as plaintiffs invested in building their respective cases and discovery of industry documents substantiated the claims of industry misconduct, the assumption of the risk defense became less sustainable.¹³¹ Consequently, plaintiffs began winning during Wave Three, earning damages ranging from \$165,000 to \$145 billion.¹³² This wave included actions brought by governmental bodies for reimbursement of health care expenditures,¹³³ individual and class actions brought for personal injury caused by smoking, and claims alleging deceptive and unfair business practices by Big Tobacco over their concerted efforts to suppress information.¹³⁴

Stronger organization of the plaintiffs, conclusive evidence of causation, and knowledge of intentional industry misconduct brought long overdue success in suing the tobacco companies.¹³⁵ Some argue the success was a result of the unified approach of 46 states all suing Big Tobacco for reimbursement of medical costs, which resulted in a hefty, yet controversial, settlement.¹³⁶

126. *Id.* at 39.

127. See Brendan Nyhan, *The Limits of the ‘Tobacco Strategy’ on Climate Change*, N.Y. TIMES (Nov. 6, 2015), <https://www.nytimes.com/2015/11/07/upshot/the-limits-of-the-tobacco-strategy-on-climate-change.html> (on file with *The University of the Pacific Law Review*) (explaining how the release of “millions of internal tobacco company documents” helped to undermine the Tobacco industry’s defenses).

128. Federal Cigarette Labeling and Advertising Act of 1965, Pub. L. No. 89-92, 79 Stat. 282 (1965) (codified as amended at 15 U.S.C. §1331–1340 (2000)); Public Health Cigarette Smoking Act of 1969, Pub. L. No. 91-222, 84 Stat. 87 (1970) (codified as amended at 15 U.S.C. §1131–1140 (2000)).

129. *Hite v. R.J. Reynolds Tobacco Co.*, 578 A.2d 417 (Pa. Super. Ct. 1990).

130. Smith, *supra* note 120, at 16.

131. Nyhan, *supra* note 127.

132. Smith, *supra* note 120, at 20.

133. *Id.* at 18.

134. *Id.* at 16.

135. *Id.* at 21 (“By having access to documents that provide evidence of longstanding fraud and deliberate misrepresentation, not only is a plaintiff more likely to succeed, but the awarding of punitive damages becomes a real probability.”).

136. William T. Godshall, *Giving 10% to Gain Eternity*, 8 TOBACCO CONTROL 437–39 (1999) (criticizing the reached Master Settlement Agreement (MSA) as being too lenient on the Tobacco companies).

2. Big Pharma's DES

Diethylstilbestrol, or “DES,” was a drug given to six million women during the 1940s and 1970s to prevent miscarriages.¹³⁷ In litigating the lawsuits following an *increase* in miscarriages caused by the drug, theories of intra-industry joint liability began to emerge, lowering the causation hurdle for DES plaintiffs who experienced adverse side effects.¹³⁸

In *Sindell v. Abbott Laboratories*, for instance, the California Supreme Court adopted a market share theory of liability for manufacturers of DES,¹³⁹ even though clear causation could not be shown for each defendant.¹⁴⁰ Shaping this remedy, the court relied on fundamental principles of fairness, explaining that:

[A]s between an innocent plaintiff and negligent defendants, the latter should bear the cost of the injury. Here . . . plaintiff is not at fault in failing to provide evidence of causation, and although the absence of such evidence is not attributable to the defendants either, their conduct in marketing a drug the effects of which are delayed for many years played a significant role in creating the unavailability of proof.¹⁴¹

While this philosophy can easily be transposed to climate litigation, the very fact that market share liability served as the theory of apportionment was monumental¹⁴² because it shifted the burden of proof from innocent plaintiffs to the defendant pharmaceutical companies.¹⁴³

IV. LITIGATION STRATEGY

Based on the information currently available in terms of event attribution, the apportionment of carbon by individual fossil fuel companies, and the decades-long conspiracy to prevent meaningful policy change in the United States, successful litigation on climate change is almost inevitable.¹⁴⁴ The issue, then, becomes

137. Barbara J. Koperski, *Market Share Liability for DES (Diethylstilbestrol) Injury: A New High Water Mark in Tort Law*, 60 NEB. L. REV. 432 (1981).

138. *Sindell v. Abbott Labs.*, 26 Cal. 3d 588 (1980).

139. *Id.* at 611–12.

140. *Id.* (holding that it was reasonable in this particular context “to measure the likelihood that any of the defendants supplied the product which allegedly injured plaintiff by the percentage which the DES sold by each of them for the purpose of preventing miscarriage bears to the entire production of the drug sold by all for that purpose”).

141. *Id.* at 610–11.

142. N. Denise Taylor, *California Expands Tort Liability Under the Novel Market Share Theory: Sindell v. Abbott Laboratories*, 8 PEPP. L. REV. 4 (1981), available at <https://digitalcommons.pepperdine.edu/plr/vol8/iss4/4> (on file with *The University of the Pacific Law Review*).

143. *Sindell*, 26 Cal. 3d at 610–11.

144. See, e.g., Milman, *supra* note 3 (explaining how the Stanford Research Institute presented a report about the serious consequences of climate change in 1968, which the president for the Center for International

“who” is in the best position to sue, and “what” theories of recovery will likely result in meritorious victories.¹⁴⁵ Section A addresses the “who” and sets forth the ideal hypothetical parties,¹⁴⁶ and Section B discusses the “what”; the body of law and remedies most likely to result in making the plaintiffs whole.¹⁴⁷

A. *Hypothetical Parties*

Party selection cannot be taken lightly, as there are not only jurisdictional limitations regarding who may sue, but the political motivations behind whomever brings these climate change lawsuits can severely limit the awards rendered.¹⁴⁸ Thus, Subsection 1 argues that the ideal, hypothetical plaintiff is the private citizen¹⁴⁹ because climate change litigation that is democratized stands a better chance of success than it would with governmental plaintiffs. Subsection 2 discusses why the Carbon Majors are the proper defendants given their central role in destabilizing the climate and their ability to pay large damage awards.¹⁵⁰

1. *Private Citizens as Plaintiffs*

Certain commentators advocate for governmental bodies bringing lawsuits to address climate-related injury.¹⁵¹ That prospect is appealing insofar as states may have a heightened ability to possess Article III standing as opposed to private citizens,¹⁵² and because state litigants generally have greater resources and are more organized. Nevertheless, climate lawsuits can proceed in state, rather than federal, courts where Article III standing will not come into play.¹⁵³ Furthermore, private citizens are more likely to obtain adequate damages and deter future misconduct through the democratization of climate change litigation.¹⁵⁴

Put simply, governmental bodies cannot be trusted to be independent of fossil fuel influence given the ever-increasing role that legalized bribery has on the composition and decision-making of the political branches and the long history of

Environmental Law claims “add[ed] to the growing body of evidence that the oil industry worked to actively undermine public confidence in climate science and in the need for climate action even as its own knowledge of climate risks was growing.”); MIT W. HEMISPHERE PROJECT, *supra* note 34.

145. *See infra* Part IV.A-B.

146. *See infra* Part IV.A.

147. *Infra* Part IV.B.

148. *See infra* Part IV.A.1.

149. *Infra* Part IV.A.

150. *Infra* Part IV.B.

151. Wood & Galpern, *supra* note 12.

152. *See* *Mass. v. EPA*, 549 U.S. 497, 520 (2007) (finding states are “not normal litigants” for purposes of Article III standing and suggested that they were entitled to “special solicitude”).

153. *See infra* Part IV.B.1–2.

154. *See* Part IV.C.

politicizing climate science.¹⁵⁵ In 2014 alone, the fossil fuel industry spent \$387,945.00 per day lobbying the government.¹⁵⁶ Largely due to a series of recent decisions that weakened campaign finance laws,¹⁵⁷ these contributions are part of a systematic effort by the fossil fuel industry, via proxy Republicans and Democrats alike, to limit its regulatory burden.¹⁵⁸ Thus, far from being a partisan issue, the underlying defect in the U.S. political process has been the invidious incentive structure whereby industries can give unlimited amounts of money to politicians who can then turn around and write laws and regulations that benefit those same industries.¹⁵⁹

The fossil fuel and tobacco industries are extraordinarily similar: both were well-versed in the harms their products posed yet pushed them on the public anyhow, and both used political engineering and disinformation campaigns to extract as much wealth as they could before the public became aware of the actual externalities.¹⁶⁰ This is not to disparage the attempts of the several cities, including New York City, San Francisco, and Oakland, that already have initiated climate lawsuits.¹⁶¹ But it is important to note that when state and local governments have banded together to hold a major industry accountable in the past, namely when 47

155. See Milman, *supra* note 3 (explaining how the Stanford Research Institute presented a report about the serious consequences of climate change in 1968, which the president for the Center for International Environmental Law claims “add[ed] to the growing body of evidence that the oil industry worked to actively undermine public confidence in climate science and in the need for climate action even as its own knowledge of climate risks was growing.”).

156. See JOHN NOËL, CLEAN WATER ACTION/CLEAN WATER FUND, THE CHILLING EFFECT OF OIL & GAS MONEY ON DEMOCRACY (2016), available at https://www.cleanwateraction.org/sites/default/files/docs/publications/Money_in_Politics_05%2003%2016a_web%20-%20FINAL.pdf (on file with *The University of the Pacific Law Review*) (“According to the Center for Responsive Politics, the oil and gas sector spent \$141,600,720 on lobbying in 2014, or \$387,945.00 a day. It employed over 800 lobbyists, enough to easily cover each member of Congress.”).

157. See *Citizens United v. Fed. Elec. Comm’n*, 130 S. Ct. 876 (2010) (finding the First Amendment prohibited capping corporate spending on political advertising).

158. See NOËL, *supra* note 156 (explaining that House members taking more than \$100,000 by fossil fuels were nearly twice as likely as members taking less than that to vote against clean air laws, while Senators who took more than \$500,000 were three times more likely.”).

159. See Lee Drutman, *How Corporate Lobbyists Conquered American Democracy*, THE ATLANTIC (Apr. 20, 2015), <https://www.theatlantic.com/business/archive/2015/04/how-corporate-lobbyists-conquered-american-democracy/390822/> (on file with *The University of the Pacific Law Review*) (explaining how the beginning of business lobbying saw immediate success: “[the business lobbying efforts] killed a major labor law reform, rolled back regulation, lowered their taxes, and helped to move public opinion in favor of less government intervention in the economy.”); see also NOËL, *supra* note 156.

160. See Dana Nuccitelli, *Is the Fossil Fuel Industry, Like the Tobacco Industry, Guilty of Racketeering?* THE GUARDIAN (Sept. 29, 2015 6:00 AM), <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2015/sep/29/is-the-fossil-fuel-industry-like-the-tobacco-industry-guilty-of-racketeering> (on file with *The University of the Pacific Law Review*) (quoting U.S. District Court Judge Gladys Kessler: “[T]he tobacco industry’s campaign to ‘maximize industry profits by preserving and expanding the market for cigarettes through a scheme to deceive the public’ about the health hazards of smoking amounted to a racketeering enterprise.”).

161. Natasha Geiling, *Two Major Cities Demand Fossil Fuel Companies Pay for Climate Damages*, THINK PROGRESS (Sept. 20, 2017, 4:55 PM), <https://thinkprogress.org/bay-area-sues-oil-companies-c34222138f6a/> (on file with *The University of the Pacific Law Review*).

states and Big Tobacco entered into a Master Settlement Agreement (MSA) in 1998, the end result was lackluster at best.¹⁶² For one, state officials contracted with just a few law firms promising them fifteen to twenty percent of any recovery.¹⁶³ While making several lawyers multi-millionaires, this tactic diverted away a huge chunk of the payout.¹⁶⁴ After the attorneys were paid, it was the states' political, economic, and other budgetary priorities that dictated where the settlement money went.¹⁶⁵ In other words, relying on state and local governments to undertake climate change litigation risks inadequate outcomes subject to bureaucratic and budgetary misuse, similar to the Big Tobacco MSA.¹⁶⁶

As a corollary to the notion that governmental actors cannot be trusted to litigate these claims effectively, judges may in fact be more sympathetic to private citizens bringing these lawsuits as opposed to governmental actors.¹⁶⁷ While the instinct is to blame the industry itself entirely, its donative influence can only accomplish deregulation to the extent its proxies in government autonomously decide to do it for them.¹⁶⁸ It is important to note that failure to take the steps necessary to prevent the climate's destabilization from becoming irreversible is not an aberration brought on by the Trump Administration; politicians and bureaucrats have enabled and subsidized violence to the environment for *decades*.¹⁶⁹ Thus, it is ostensibly true that the goals of the federal *and* state governments are disjointed from those of its constituents, and this means that the private citizens who choose to stand up for their rights ineffectively protected by their government may have a greater chance in the eyes of a judge.¹⁷⁰ Further, judges may feel larger damage awards are justified when the money goes directly to private citizens, and not a state's general bank account to allocate as their policy, budgetary, and other bureaucratic caprices dictate.¹⁷¹

Therefore, if the goal of climate litigation is to make private citizens whole—with either a dual or incidental purpose of deterrence—the plaintiffs' underlying

162. Godshall, *supra* note 136.

163. Barry Meier, *The Spoils of Tobacco Wars; Big Settlement Puts Many Lawyers in the Path of a Windfall*, N.Y. TIMES (Dec. 22, 1998), <http://www.nytimes.com/1998/12/22/business/spoils-tobacco-wars-big-settlement-puts-many-lawyers-path-windfall.html> (on file with *The University of the Pacific Law Review*) (stating one law firm was guaranteed \$1 billion in legal fees from the settlements).

164. *Id.*

165. *Id.*

166. Godshall, *supra* note 136.

167. Alexander, *supra* note 117.

168. *See* NOËL, *supra* note 156 (reporting on Big Oil's lobbying efforts).

169. *See* Milman, *supra* note 3 (explaining the Stanford Research Institute presented a report about the serious consequences of climate change in 1968, which the president for the Center for International Environmental Law claims “add[ed] to the growing body of evidence that the oil industry worked to actively undermine public confidence in climate science and in the need for climate action even as its own knowledge of climate risks was growing.”).

170. Alexander, *supra* note 117.

171. Meier, *supra* note 163.

goals in pursuing the claims and the allocation of damages will be crucial.¹⁷²

2. *Carbon Majors as Defendants*

Arguably, there are two distinct categories of defendants deserving of liability for exacerbating climate change: governmental bodies, including federal, state, and local governments, and corporations.¹⁷³ The undeniable appeal of suing state and local governments lies with the tangible remedies that could result; i.e. the ability to compel and/or encourage adaptive city planning.¹⁷⁴ Yet those adaptive measures will in many cases be reactionary: to be sure, 69% of Republicans and four percent of Democrats believe that the dangers of climate change are overreactions,¹⁷⁵ casting doubt over the ability or willingness of governments to make drastic, proactive changes. In any case, suing local governments—which are much less suited to satisfy large monetary judgements than the Carbon Majors—cannot address the particular interest that is the focus of this Comment: protectable, legal interests of private citizens.¹⁷⁶

Yet the sound critique of this designation bears mentioning: “why are automakers and power plants sued rather than their customers?”¹⁷⁷ Surely, there is not “problematic arbitrariness”¹⁷⁸ in selecting industry actors as defendants, just as it was not arbitrary to sue the tobacco companies and the manufacturers of DHS despite the fact that the victims were in some sense willing participants. Reliable data can attribute the “lion’s share” of anthropogenic GHG emissions to an ascertainable number of Carbon Majors,¹⁷⁹ and well-established notions of

172. *Supra* Part IV.A.1 (discussing the indications that governmental actors may not achieve optimal success in climate change litigation).

173. See Jenna Schweitzer, *Climate Change Legal Remedies: Hurricane Sandy and New York City Coastal Adaptation*, 16 VT. J. ENVTL. L. 243, 246266 (2014–2015) (arguing for local suits).

174. See *id.* at 266 (explaining that local governments are proper defendants for climate-based suits because they “are responsible for everything from land-use planning and development to infrastructure management to public health and emergency planning . . . [and are] the appropriate scale of government to address the issue because experiences of climate-induced weather events will vary at much smaller geographical scales” (internal citations omitted)).

175. Brenan & Saad, *supra* note 41.

176. See *supra* Part I (noting the desire to find solutions to make private citizens whole).

177. Douglas A. Kysar, *What Climate Change Can Do About Tort Law*, 41 ENVTL. L. 1, 18–19 (2011).

If most courts are unwilling to view handgun manufacturers as proximate contributors to the public nuisance of violent crime, how many will see the oil industry and other corporate defendants as chiefly responsible for activities that, in truth, are imbricated throughout modern society and that only cause harmful impacts when combined with all other such activities and when traced forward through an extraordinarily complex series of ripple effects that span the planet?

Id.

178. *Id.* at 18 (“[T]here is a problematic arbitrariness in plaintiffs’ designation of the defendant class.”).

179. See Suzanne Goldenberg, *Just 90 Companies Caused Two-Thirds of Man-Made Global Warming Emissions*, THE GUARDIAN (Nov. 20, 2013 11:07 AM), <https://www.theguardian.com/environment/2013/nov/20/90-companies-man-made-global-warming-emissions-climate-change> (on file with *The University of the Pacific Law Review*) (quoting climate researcher Richard Heede: “There are thousands of oil, gas and coal producers in

substantial causality can justify even joint and several liability for the indivisible harm experienced by climate change plaintiffs.¹⁸⁰ Furthermore, as discussed more in Section C,¹⁸¹ the enormous disparity between the respective carbon footprints of oil companies and consumers render this argument unavailing.

B. Body of Law, Venue, and Remedy

It appears that for private plaintiffs, relying on statutory law to obtain damages leads to a dead end.¹⁸² Not only are there the jurisdictional barriers such as standing, but the political question doctrine and the displacement of federal common law have also come into play, causing many to lose hope for the possibility of climate change litigation.¹⁸³ Subsection 1 posits that plaintiffs seeking damages for harm caused by exacerbated natural disasters should utilize state common law as their theory of recovery and avoid statutory violations altogether.¹⁸⁴ Next, Subsection 2 discusses how plaintiffs can avoid the political question problem by choosing remedies that are compensatory in nature and choosing defendants that have engaged in intentional misconduct.¹⁸⁵

1. Common Law and Displacement

Theoretically, one could bypass obscure justiciability problems by sticking with a well-established principle of state common law.¹⁸⁶ But succeeding on such a claim—or at least getting to the merits of the case—would require that a judge find the state common law claims neither displaced by the federal common law, nor preempted by the federal statutes relating to the same subject.¹⁸⁷ When it comes to climate change torts, however, state common law should not be displaced unless there is *de facto* occupation; unless there is actual agency action that can rationally

the world . . . But the decision makers, the CEOs, or the ministers of coal and oil if you narrow it down to just one person, they could all fit on a Greyhound bus or two.”); *see also* HEEDE, *supra* note 8 (attributing GHG output to individual fossil fuel companies).

180. *See infra* Part IV.C.1 (discussing the imposition of joint and several liability).

181. *See infra* Part IV.C (arguing that individuals are not contributorily negligent in a *res ipsa loquitur*-style analysis).

182. *See supra* Part III.A (discussing the problems of preemption and displacement).

183. *See, e.g.*, *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 853 (9th Cir. 2012); *see also* *Am. Elec. Power Co. v. Conn.*, 564 U.S. 410, 411 (2011); Schweitzer, *supra* note 173 at 264 (arguing *AEP* “basically closed the door on climate change torts”).

184. Grossman, *supra* note 12, at 59 (“Tort-based climate change litigation strikes many people as a radical idea at first. Basic tort principles . . . combined with the overwhelming scientific consensus that global warming is occurring and the evidence that it is having present detrimental effects, may provide a basis for claims of some liability against fossil fuel companies . . . for some of climate change’s effects.”).

185. *Infra* Part IV.B.II.

186. *McMahon v. Presidential Airways, Inc.*, 502 F.3d 1331, 1364 (11th Cir. 2007).

187. *Am. Elec. Power Co., Inc. v. Conn.*, 564 U.S. 410, 429 (2011).

be expected to mitigate the threat of climate change.¹⁸⁸

Massachusetts v. EPA said that GHGs were regulated under the CAA,¹⁸⁹ and the Supreme Court has confirmed that the EPA is therefore the proper entity to combat the threat of climate change.¹⁹⁰ All else being equal, this can be yielded to shut down all such claims having to do with GHGs and air quality.¹⁹¹ And, in *AEP*, the Court stated it was the *fact*, not the manner, of occupation of a particular field that comprised the test for displacement.¹⁹² What, then, comes of the fact that all mention of GHGs has been scrubbed from the EPA's website, and that the current Administration has already engaged in historic deregulation of environmental regulation?¹⁹³

To wrap one's head around that notion, here is a thought experiment: If Congress repealed the Clean Air Act, then it would be undeniable that causes of action relating to GHGs would no longer be displaced or preempted by federal law.¹⁹⁴ But would a similar result obtain from largely *executive* inaction,¹⁹⁵ absent specific statutory repeal that has gone through the legislative process? The answer is probably not, based on the fact that in *AEP*, the Court squarely rejected the argument that since the EPA had not started regulating GHGs it should not displace GHG-related causes of action.¹⁹⁶ This would seem to confirm that even if the executive branch utterly failed to execute a law passed by Congress, that law can still be used to justify displacing state actions on the same subject.¹⁹⁷

The logic behind this test for displacement is clear in light of the channels already in place allowing for lawsuits against agencies if, for instance, one had the statutory directive to regulate GHGs yet refused to do so arbitrarily and capriciously.¹⁹⁸ Here is another thought experiment: If the United States elected a

188. See *infra* Part IV.B.1.

189. *Mass. v. EPA*, 549 U.S. 497 (2007).

190. *Am. Elec. Power Co.*, 564 U.S. at 428.

191. See Shweitzer, *supra* note 173 at 264 (saying that *AEP* "basically closed the door on climate change torts").

192. *Am. Elec. Power Co., Inc. v. Conn.*, 564 U.S. 410, 426 (2011).

193. *Road to Repeal Document*, *supra* note 6; Madison Park, *EPA Removes Climate Change References from Website, Report Says*, CNN (Dec. 8, 2017), <https://www.cnn.com/2017/12/08/politics/epa-climate-change-references/index.html> (on file with *The University of the Pacific Law Review*).

194. See *Am. Elec. Power Co.*, 564 U.S. 426 (noting that the test for displacement is congressional occupation of the field).

195. See, e.g., *Road to Repeal Document*, *supra* note 6 (explaining executive plans to dismantle current regulations).

196. *Am. Elec. Power Co.*, 564 U.S. at 426.

197. *Id.*

198. Administrative Procedure Act, 5 U.S.C.A. § 706 (Westlaw through Pub. L. No. 115-140) § 7607; see *Am. Elec. Power Co., Inc.*, 564 U.S. at 426 ("[W]ere EPA to decline to regulate carbon-dioxide emissions altogether at the conclusion of its ongoing § 7411 rulemaking, the federal courts would have no warrant to employ the federal common law of nuisance to upset the agency's expert determination. EPA's judgment, we hasten to add, would not escape judicial review.").

president who thinks climate change is a Chinese hoax¹⁹⁹ and whose administration has indicated that it would be willing to disobey federal court orders,²⁰⁰ such a scenario may render efforts to use district courts to compel unlawfully withheld agency action ineffective. That a new chief executive could replace the current one rather quickly²⁰¹ does not take away from the potential that rogue administrations opposed to climate action will continue to occupy the White House. To be sure, the current U.S. landscape is itself in relatively depressed conditions: 60% of the entire country is unable to afford a \$1,000 emergency,²⁰² and movement up the economic ladder is unattainable for many given the high cost of education.²⁰³ Therefore, it is prudent to treat a rogue administration as the product of the systems and policies already in place, rather than an isolated incident attributable to more comforting excuses, like Russian interference or Jill Stein.²⁰⁴ Furthermore, even a rogue administration that is in fact an anomaly and does lead to a rebirth of progressive liberalism in the U.S. (or, to be fair, at the least moderate-to-conservative neo-liberalism)²⁰⁵ can still leave a long-lasting and even permanent

199. See Peter Baker, *Does Donald Trump Still Think Climate Change Is a Hoax? No One Can Say*, N.Y. TIMES (June 2, 2017), <https://nyti.ms/2rAPzsh> (on file with *The University of the Pacific Law Review*) (noting the White House has refused to answer whether President Trump still retains such views, although he has tweeted, “The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive” and that “global warming is a total, and very expensive, hoax!”).

200. Dahlia Lithwick, Leon Neyfakh & Mark Joseph Stern, *What Happens If Donald Trump Refuses a Federal Court Order*, SLATE (Jan. 30, 2017, 9:28 PM), <http://www.slate.com/news-and-politics/2017/01/what-happens-if-donald-trump-refuses-a-federal-court-order.html> (on file with *The University of the Pacific Law Review*) (reporting that Customs and Border Protection were disregarding federal court orders, and enforcing Trump’s travel ban leading to the question with “little or no precedent in American history: What happens when the federal government or its agents refuse to honor a court order handed down by a federal judge?”).

201. See U.S. CONST. art. II, § 1 (“The [president] . . . shall hold his Office during the Term of four Years”).

202. See Eleanor Goldberg, *Most Americans Can’t Afford a Minor Emergency*, HUFFINGTON POST (Jan. 29, 2018, 5:46 AM), https://www.huffingtonpost.com/entry/most-americans-cant-afford-to-pay-for-even-a-minor-emergency_us_5a68e67ae4b0022830090e5b (on file with *The University of the Pacific Law Review*) (noting how only “39 percent of Americans have enough money in savings to cover an unexpected \$1,000 bill”).

203. See Robert Haveman & Timothy Smeeding, *The Role of Higher Education in Social Mobility*, 16 FUTURE OF CHILDREN 125–50 (Fall 2006) (“The high concentration in the nation’s colleges and universities of youth from the top echelons of parental income and social class is disturbing and appears to be increasing.”).

204. See, e.g., Simon van Zuylen-Wood, *Does This Man Know More Than Robert Mueller? Glenn Greenwald’s War on the Russia Investigation*, N.Y. MAG. (Jan. 21, 2018, 9:06 AM), <http://nymag.com/daily/intelligencer/2018/01/glenn-greenwald-russia-investigation.html> (on file with *The University of the Pacific Law Review*) (“[T]he Russia-Trump story is a shiny red herring—one that distracts from the failures, corruption, and malice of the very Establishment so invested in promoting it.”); Jessie Van Amburg, *Rachel Maddow Calls Out Third-Party Voters*, TIME (Nov. 9, 2016), <http://time.com/4564294/rachel-maddow-third-party-candidates-election-2016/> (on file with *The University of the Pacific Law Review*) (quoting Rachel Maddow of MNSBC on the 2016 election: “If you vote for somebody who can’t win for president, it means that you don’t care who wins for president.”); Eli Watkins, *How Gary Johnson and Jill Stein Helped Elect Donald Trump*, CNN (Nov. 25, 2016), <https://www.cnn.com/2016/11/10/politics/gary-johnson-jill-stein-spoiler/index.html> (on file with *The University of the Pacific Law Review*).

205. The Obama Administration *did* begin taking steps toward regulating GHGs in “a set of much-anticipated—and first ever—steps to regulate oil and gas industry emissions of methane, a powerful greenhouse gas second only to carbon dioxide in its role in the climate debate.” See Chris Mooney & Brady Dennis, *Obama Administration Announces Historic New Regulations for Methane Emissions from Oil and Gas*, WASH. POST

mark—*especially* when it comes to the environment. In a single term, the Trump Administration has achieved historic deregulation of corporate polluters, appointed two justices to the Supreme Court, and broke a record on most appellate judges confirmed of any president in their first year in office.²⁰⁶

Thus, when it comes to the impending existential crisis of global climate change, the distinction between fact and manner of occupation is illusory, and courts should require only *de facto* occupation by the coordinate political branch before finding that Congress has spoken.²⁰⁷ In other words, issues involving “the biggest threat to humanity”²⁰⁸ cannot be precluded from resolution by judges that are “particularly loath” to break from traditional norms.²⁰⁹

States, of course, are not all on board with deregulation. Former California Governor Jerry Brown, for example, planned to heighten motor vehicle emissions standards, and other states have similarly worked to decrease their respective CO₂ emissions and maintain compliance with the Paris Climate Accord’s voluntary standards.²¹⁰ Thus, any possible argument based on the EPA’s retreat from regulatory occupation of GHGs would fail in states where there continues to be strong regulation on the topic.²¹¹

The interstate and intrastate air pollution distinction—as per *Milwaukee’s* analysis pertaining to water pollution—should also be recognized as illusory in the climate change context, and plaintiffs suing for interstate air pollution should not be limited to federal common law (subject to displacement) in the first place.²¹²

The concern in *Milwaukee I* was that even though states enacting more stringent standards than those of the federal CWA would generally further the purpose of environmental legislation, the risks inherent with inconsistent standards across state lines and the burden to industry compelled a finding that federal law

(May 12, 2016), https://www.washingtonpost.com/news/energyenvironment/wp/2016/05/12/obama-administrati-on-announces-historic-new-regulations-for-methane-emissions-from-oil-and-gas/?utm_term=.65c26c1d792a (on file with *The University of the Pacific Law Review*).

206. Tessa Berenson, *President Trump Appointed Four Times as Many Federal Appeals Judges as Obama in His First Year*, TIME (Dec. 15, 2017), <http://time.com/5066679/donald-trump-federal-judges-record/> (on file with *The University of the Pacific Law Review*) (citing a report by Axois: “Trump has successfully appointed 12 so far; President Barack Obama confirmed just three in his first year, and President George W. Bush confirmed six. He beat out presidents Richard Nixon and John F. Kennedy, who each confirmed 11.”).

207. *Am. Elec. Power Co., Inc. v. Conn.*, 564 U.S. 410, 426 (2011).

208. Brian Kahn, *Climate Change Is the World’s Biggest Risk, in 3 Charts*, CLIMATE CENTRAL (Jan. 12, 2017), <http://www.climatecentral.org/news/climate-change-worlds-biggest-risk-charts-21050> (on file with *The University of the Pacific Law Review*).

209. See John T. Loughran, *Some Reflections on the Role of Judicial Precedent*, 22 FORDHAM L. REV. 1, 8 (1953) (“The common law has been able to maintain its preeminent place over the centuries because of its stability and its inherent capacity for keeping pace with the demands of an ever-changing and ever-growing civilization.”).

210. Evan Halper, *A California-Led Alliance of Cities and States Vows to Keep the Paris Climate Accord Intact*, L.A. TIMES (June 2, 2017, 4:15 PM), <http://www.latimes.com/politics/la-na-pol-paris-states-20170602-story.html> (on file with *The University of the Pacific Law Review*).

211. *Am. Elec. Power Co., Inc.*, 564 U.S. at 426.

212. *Ill. v. City of Milwaukee*, 406 U.S. 91 (1972).

was to control.²¹³ This touches on the “interstate character” of the nature of the harm that the Carbon Majors have had on our hypothetical plaintiffs; that is, these fossil fuel companies are multi-national with operations all over the world, and their contribution to plaintiffs’ current harm is the culmination of decades of carbon emissions spread out across the planet.²¹⁴ Yet, the fact that there is no express congressional displacement of state law (language in the CAA even provides specifically for maintenance of common law suits),²¹⁵ means that the justification for preventing adjudication at the state level lies squarely with the concern that inconsistent standards will burden the industry. Not only does this justification make it harder to hold oil companies liable for their wrongdoing,²¹⁶ it also disregards the fact that severe weather will damage different geographic areas, at different times, and to different extents, making the state-by-state adjudicatory process preferable for experimenting with theories of recovery.

2. *Compensatory Damages*

In addition to the use of common law, seeking remedies that are compensatory in nature and necessary to make plaintiffs whole can mitigate issues of nonjusticiable political questions.²¹⁷ It may even be feasible to assume the CAA does not preempt claims of a non-regulatory nature brought by plaintiffs under the common law of at least the pollution’s source state.²¹⁸

While it is true that a government agency’s determination of how best to implement a statute is indeed political,²¹⁹ a private cause of action against Carbon

213. *Id.* at n.6.

214. *See Am. Elec. Power Co.*, 564 U.S. at 422 (“[C]onsiderations of scale and complexity distinguish global warming from the more bounded pollution giving rise to past federal nuisance suits.”); Transcript of Oral Argument at 57–58, *Am. Elec. Power Co., Inc. v. Conn.*, 564 U.S. 410 (2011) (No. 10-174), available at https://www.supremecourt.gov/oral_arguments/argument_transcripts/2010/10-174.pdf (on file with *The University of the Pacific Law Review*) (quoting Chief Justice Roberts, who argues that because “everyone is harmed by global warming,” letting the case continue would mean that “every individual in the world” could sue).

215. *See CAA*, 42 U.S.C.A. § 7416 (Westlaw through Pub. L. No. 115-140) (“Except as otherwise provided . . . nothing in this chapter shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution.”).

216. *See Am. Elec. Power Co.*, 564 U.S. at 424 (holding that plaintiffs could not pursue their claims against the defendants).

217. *See Gordon v. Tex.*, 153 F.3d 190, 195 (5th Cir. 1998) (“Monetary damages . . . do not . . . constitute a form of relief that is not judicially manageable.”).

218. *Freeman v. Grain Processing Corp.*, 848 N.W.2d 58, 80 (Iowa 2014).

219. *See Baker v. Carr*, 369 U.S. 186, 217 (1962.) The Political Question Doctrine is

essentially a function of the separation of powers. Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or the impossibility of a court’s undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for

Majors is not. A private cause of action would not be based on whether a federal agency should or should not have put a certain statute in place.²²⁰ Suing Carbon Majors is based on the *affirmative misconduct* by billionaire, multi-national corporations that has caused and *will continue to cause* billions and eventually trillions of dollars in property damage alone.²²¹ The harm that must be redressed does not arise from any difference in political opinion or expertise-based discretion, and the common law already provides adequate theories that a plaintiff can pursue.²²² Furthermore, the damages sought by these claims will not be abatement;²²³ in other words, the redress awarded to successful plaintiffs will not be a mandate for Big Oil to reduce its contribution to global warming. Instead, redress would take the form of compensatory damages for the invasion of an individual right (e.g. the right to life, liberty, and pursuit of happiness,²²⁴ and the right to use and enjoy one's property). Therefore, staying closely connected to the common law of tort, which courts have said "provides clear and well-settled rules on which the district court can easily rely,"²²⁵ will obviate any unwarranted judicial lawmaking.

As for the issue of preemption, several of the failed climate change cases asserted causes of action for failing to *regulate*; suggesting—or at least leaving open the possibility of—justiciability where the relief sought is tethered to non-statutory interests.²²⁶ Courts have also recently held that the "purpose and function of the [CAA] differs sufficiently from the purpose and function of 'a private lawsuit seeking damages anchored in ownership of real property' . . . [t]he purpose of state nuisance and common law actions is to protect the use and enjoyment of specific property, not to achieve a general regulatory purpose."²²⁷ As stated in

unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Id.

220. *Mass. v. EPA*, 549 U.S. 497, 537533 (2007).

221. *The Hidden Costs of Fossil Fuels*, UNION OF CONCERNED SCIENTISTS, https://www.ucsusa.org/clean-energy/coal-and-other-fossil-fuels/hidden-cost-of-fossils#.WIKd_IQ-eAw (last updated Aug. 30, 2016) (on file with *The University of the Pacific Law Review*).

222. See *Baker v. Carr*, 369 U.S. 186, 208 (1962) ("The very essence of civil liberty certainly consists in the right of every individual to claim the protection of the laws, whenever he receives an injury.").

223. See *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 857853 (9th Cir. 2012) (seeking abatement of CO₂ emissions by coal plants); *Am. Elec. Power Co. v. Conn.*, 564 U.S. 410, 411 (2011) ("The Court need not address the question whether, absent the Clean Air Act and the EPA actions it authorizes, the plaintiffs could state a federal common-law claim for curtailment of greenhouse gas emissions because of their contribution to global warming. Any such claim would be displaced by the federal legislation authorizing EPA to regulate carbon-dioxide emissions.").

224. U.S. CONST. amend. V; *Marbury v. Madison*, 5 U.S. 137 (1803).

225. *McMahon v. Presidential Airways, Inc.*, 502 F.3d 1331, 1364 (11th Cir. 2007); *Alperin v. Vatican Bank*, 410 F.3d 532, 554 (9th Cir. 2005).

226. See *Mass. v. EPA*, 549 U.S. 497 (2007) (suing for failure to regulate GHGs); *Native Vill. of Kivalina v. ExxonMobil Corp.*, 696 F.3d 849, 853 (9th Cir. 2012) (attempting to sue the major polluting corporations that caused environmental harm to the city).

227. *Brown-Forman Corp. v. Miller*, 528 S.W.3d 886, 894 (Ky. 2017) (quoting *Freeman v. Grain*

Bennett v. Mallinckrodt, Inc., “States may be preempted from setting their own emissions standards, but they are not preempted from compensating injured citizens.”²²⁸ And in *Brown-Forman Corp. v. Miller*:

The [CAA] does not provide a mechanism for awarding monetary compensation to an injured party suffering from a particularized harm. “Thus, a property owner seeking full compensation for harm related to the use and enjoyment of property at a specific location must resort to common law or state law theories to obtain a full recovery.”²²⁹

Thus, where the cause of action involves affirmative misconduct and is filed by a private citizen against a corporation for compensatory damages caused by an exacerbated natural disaster, the suit will not go beyond the province of the court into political matters, and as a claim for the invasion of a personal right it, “*by definition*,” will “not involve a political question.”²³⁰

C. *Causes of Action and Remedy*

Several common law theories of recovery are well-suited for the kind of claim a plaintiff experiencing property damage from climate change could pursue.²³¹ This part analyzes the more obvious ones that can apply to the Carbon Majors: negligence²³² and nuisance.²³³

1. *Common Law Negligence and Res Ipsa Loquitur*

A prima facie case for negligence requires a showing of: (1) a duty owed to the plaintiff by the defendant; (2) breach of that duty; (3) causation between the breach and plaintiff’s harm; and (4) damages.²³⁴ For plaintiffs who suffer property damage as a result of exacerbated natural disasters, the damages prong will pose little challenge.²³⁵ However, the elements of duty, breach, and causation will

Processing Corp., 848 N.W.2d 58, 84 (Iowa 2014)).

228. *Bennett v. Mallinckrodt, Inc.*, 698 S.W.2d 854, 862 (Mo. Ct. App. 1985).

229. *Brown-Forman Corp. v. Miller*, 528 S.W.3d 886, 894 (Ky. 2017).

230. ERWIN CHERMERINSKY, FEDERAL JURISDICTION §2.6, 149 n.7 (5th ed. 2007) (quoting HOWARD FINK & MARK TUSHNET, FEDERAL JURISDICTION: POLICY AND PRACTICE 231 (2d ed. 1987) (“[N]otice the effect of Marbury’s classification: Standing is just the obverse of political questions. If a litigant claims that an individual right has been invaded, the lawsuit by definition does not involve a political question.”)).

231. Grossman, *supra* note 12, at 59.

232. *Infra* Part V.A.1

233. *Infra* Part V.A.2.

234. Hon. Theodore R. Boehm, *A Tangled Webb-Reexamining the Role of Duty in Indiana Negligence Actions*, 37 IND. L. REV. 1, 1 (2003).

235. See RESTATEMENT (SECOND) OF TORTS § 7 (1979) (explaining that the word “harm” implies “a loss or detriment to a person . . . in so far as physical changes have a detrimental effect on a person, that person suffers harm.”).

require more effort to prove.²³⁶

Establishing duty requires a showing that the type of harm suffered by the plaintiff was a foreseeable consequence of the defendant's conduct, such that the defendant's actions created an unreasonable risk of harm to that foreseeable plaintiff.²³⁷ In general, breaching a duty will only occur when an actor's conduct is unreasonable under the circumstances, creating a foreseeable risk of harm that eventually materialized.²³⁸

Thus, under a negligence theory, a hypothetical climate plaintiff would allege that the Carbon Majors owed her a duty to not create an unreasonable risk of property damage.²³⁹ In other words, this plaintiff will establish that the Carbon Majors risked causing her property damage by emitting high amounts of CO₂ into the atmosphere, *and* that the risk was unreasonable given the circumstances.²⁴⁰ Of course, this raises the problem inherent in a tort based on climate change; somewhat paradoxically, the larger the scope of potential plaintiffs, the less likely it is that liability will attach.²⁴¹ This is the relational aspect of legal duties because a defendant cannot be held liable for negligence solely by acting negligently.²⁴² That "climate" is itself global in nature (defined as "the weather conditions prevailing in an area in general or over a long period") seems to inevitably lead to the conclusion that affecting the climate would create *global* risk.²⁴³ But in reality, there is no reason why the relational aspect of a legal duty cannot be global when the risk itself is.²⁴⁴ In fact, numerous commentators have observed that this "omnipresent plaintiff" problem is indeed not a problem when it comes to climate change and the problems that climate change will cause.²⁴⁵

As for breach, there are several broad approaches to deciding whether one has occurred.²⁴⁶ Learned Hand's classic BPL formulation provides that a breach occurs if the burden of preventing the harm was less than the magnitude of the potential

236. *Infra* Part V.A.1.

237. *Palsgraf v. Long Island R. Co.*, 162 N.E. 99, 104 (N.Y. 1928).

238. *Id.*

239. RESTATEMENT (SECOND) OF TORTS § 7 (1979).

240. *Brown v. Kendall*, 60 Mass. 292 (1850) (applying the reasonable person standard as the objective level of care to be used in order to avoid liability for negligence).

241. *Palsgraf*, 162 N.E. at 99 (N.Y. 1928) ("The conduct of the defendant's guard, if a wrong in its relation to the holder of the package, was not a wrong in its relation to the plaintiff, standing far away. Relatively to her it was not negligence at all.")

242. *Id.* at 101 ("Negligence, like risk, is thus a term of relation.")

243. Bhavya Reddy, *Climate Change Is a Global Problem. Climate Action Is a Local Solution*, THE GUARDIAN (Oct. 5, 2015, 07:15 AM), <https://www.theguardian.com/commentisfree/2015/oct/05/climate-change-global-problem-climate-action-local-solution> (on file with *The University of the Pacific Law Review*).

244. *Palsgraf*, 162 N.E. at 101.

245. See Grossman, *supra* note 12, at 40 (arguing that the Supreme Court's latest decisions have enhanced the plaintiff's ability in a climate tort case to establish standing); Hunter & Salzman, *supra* note 12, at 1757 ("The identifiable risks of climate change are becoming better understood, and most of them have become more likely with greater consequences than was thought even a decade ago.")

246. Hunter & Salzman, *supra* note 12, at 1757.

harm times its likelihood of occurring.²⁴⁷ This approach brings in various policy issues surrounding the acceptable burden to place on energy producers, but any such burden must necessarily be juxtaposed with Carbon Majors' annual net revenue and the amount it receives in subsidies.²⁴⁸ The United States itself spends approximately \$20.5 billion annually on "fossil fuel exploration and production subsidies,"²⁴⁹ which does not include military costs to defend fossil fuel interests globally²⁵⁰ or the costs incurred as a result of pollution.²⁵¹ All of this is not to argue for ending these subsidies—especially because doing so would only decrease total CO₂ emissions by a small percentage.²⁵² Rather, the point is to emphasize that the fossil fuel companies are in the best position to uphold the burden of losses when it comes to environmental harm—a notion that reflects supposedly one of the fundamental functions of tort law.²⁵³

The most significant counterargument in finding a breach under any method will be the social utility provided by the Carbon Majors.²⁵⁴ However, even granting the enormously high value of the Carbon Majors providing energy, that utility relates only to short-term goals (which Big Oil could achieve by alternate, less harmful means), and emitting gigaton after gigaton of CO₂ into the atmosphere unequivocally has negative utility in the long run.²⁵⁵

247. *Id.*; *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) ("[T]he owner's duty, as in other similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions.").

248. Carrington, *supra* note 4 (explaining that internationally, governments spend an estimated \$10 million a minute on fossil fuels).

249. *Fossil Fuel Subsidies: Overview, How Much Money Does the United States Government Provide to Support the Oil, Gas, and Coal Industries*, OIL CHANGE INT'L, <http://priceofoil.org/fossil-fuel-subsidies/> (last visited Jan. 3, 2018) (on file with *The University of the Pacific Law Review*).

250. *Id.*

251. See DAVID COADY, IAN PARRY, LOUIS SEARS & BAOPING SHANG, INT'L MONETARY FUND, IMF WORKING PAPER: HOW LARGE ARE GLOBAL ENERGY SUBSIDIES? 4 (May 2015), available at <http://www.imf.org/external/pubs/ft/wp/2015/wp15105.pdf> (on file with *The University of the Pacific Law Review*) (calling for drastic subsidy reform reflecting an "increasing recognition of the perverse environmental, fiscal, macroeconomic, and social consequences of energy subsidies."); *Id.* at 6 ("Most energy subsidies arise from the failure to adequately charge for the cost of domestic environmental damage—only about one-quarter of the total is from climate change.").

252. Eduardo Porter, *Do Oil Companies Really Need \$4 Billion Per Year of Taxpayers' Money?*, N.Y. TIMES (Aug. 5, 2016), https://www.nytimes.com/2016/08/06/upshot/do-oil-companies-really-need-4-billion-per-year-of-taxpayers-money.html?_r=0 (on file with *The University of the Pacific Law Review*) (referring to a report by the Council on Foreign Relations: "Cutting oil drilling subsidies might reduce domestic oil production by 5 percent in the year 2030.").

253. *Wex: Tort*, CORNELL L. SCH., <https://www.law.cornell.edu/wex/tort> (last visited Jan. 2, 2018) (on file with *The University of the Pacific Law Review*).

254. RICHARD S.J. TOL, UNIV. OF SUSSEX, THE PRIVATE BENEFIT OF CARBON AND ITS SOCIAL COST (2017), available at https://www.sussex.ac.uk/webteam/gateway/file.php?name=wps-07-2017.pdf&site=24&utm_content=buffera74f6&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer (on file with *The University of the Pacific Law Review*) ("The private benefit of carbon is much higher than the social cost of carbon.").

255. UNION OF CONCERNED SCIENTISTS, *supra* note 221.

As for causation, every natural disaster that is uncommon to an area should entail a *res ipsa loquitur*-style analysis, a doctrine developed at common law that shifts the initial burden of producing evidence of causation to the defendant based on the rationale that such evidence is “practically accessible to him but inaccessible to the injured person.”²⁵⁶ For the doctrine to apply: (1) the kind of injury that occurred must be one that “ordinarily does not occur [absent] someone’s negligence; (2) it must be caused by an agency or instrumentality within the exclusive control of the defendant; and (3) it must not have been due to any voluntary action or contribution on the part of the plaintiff.”²⁵⁷

It was probably negligence that proximately caused property damage that would not have occurred were the climate not destabilized.²⁵⁸ The top 90 carbon producers in the world probably contributed substantially to that destabilization.²⁵⁹ Moreover, although it is true that every person—particularly Americans—contributes to climate change, even the relatively high consumption of fossil fuels by the average American is not a substantial enough amount of CO₂ that could disrupt natural atmospheric levels the way that gigatons over decades can.²⁶⁰

As such, Carbon Majors should be jointly and severally liable to any person whose property has been destroyed from such an abnormally intense weather event.²⁶¹ It will then be left to the industry itself to determine its respective liability

256. See *Ybarra v. Spangard*, 25 Cal. 2d 486, 489; *Anderson v. Serv. Merch. Co., Inc.*, 485 N.W.2d 170, 176 (Neb. 1992) (explaining when *res ipsa loquitur* applies, “an inference of negligence exists for submission to the fact finders, which may accept or reject the inference in the factual determination whether the defendant is negligent.”).

257. *Ybarra*, 25 Cal.2d at 489.

258. See, e.g., Jin-Ho Yoon et al., *Explaining Extreme Events of 2014*, 96 BULL. AM. METEOROLOGICAL SOC’Y 96 S5–S9 (2015) (“The fire season in northern California during 2014 was the second largest in terms of burned areas since 1996. An increase in fire risk in California is attributable to human-induced climate change.”); Neal Conan, *Study Links Extreme Weather and Climate Change*, NPR (Feb. 17, 2011, 2:35 PM), <https://www.npr.org/2011/02/17/133843546/Study-Links-Extreme-Weather-And-Climate-Change> (on file with *The University of the Pacific Law Review*) (“In October and November of 2000, England and Wales experienced the wettest autumn since they started to keep records back in 1766.”); But see Cheng et al., *How Has Human-Induced Climate Change Affected California Drought Risk?* (Jan. 1, 2016), <https://journals.ametsoc.org/doi/pdf/10.1175/JCLI-D-15-0260.1> (on file with *The University of the Pacific Law Review*) (“The results thus indicate that the net effect of climate change has made agricultural drought less likely and that the current severe impacts of drought on California’s agriculture have not been substantially caused by long-term climate changes.”).

259. See Drollette Jr., *supra* note 3 (explaining how just 90 entities are responsible for 63% of all industrial CO₂ and methane emissions).

260. See *Mapping the American carbon footprint, down to the last zip code (interactive maps)*, SRHINKTHATFOOTPRINT.COM (last visited Apr. 1, 2018), <http://shrinkthatfootprint.com/american-carbon-footprint> (on file with *The University of the Pacific Law Review*).

261. See *Rourk v. Selvey*, 164 S.E.2d 909, 910 (S.C. 1968) (quoting *Pendleton v. Columbia Ry., Gas & Elec. Co.*, 131 S.E. 265, 267 (S.C. 1926)).

That a single injury, which is the proximate result of the separate and independent acts of negligence of two or more parties, subjects the tort-feasors, even [absent concerted action], to a liability which is both joint and several, is a proposition recognized and approved in this state and supported by the great weight of authority elsewhere. Since the liability of such tort-feasors is both joint and several, it is well settled that the law gives to the injured party the option of suing two or more of the parties liable

in order to seek contribution in a given case.²⁶² Because of the global nature of climate change, this determination will not always mirror the actor's actual contribution. Thus, the sector should internally set automatic standards for apportioning damages in any given case according to the proportion of each companies' respective GHG emissions.²⁶³ By imposing joint and several liability, a plaintiff can choose to collect damages from a larger pool of defendants, tailoring the choice to the particular jurisdiction and/or legal theory, thereby increasing the likelihood of a court exercising jurisdiction.²⁶⁴

The court could also apportion these damages itself and impose market share liability as opposed to joint and several.²⁶⁵ However, the companies are better suited to make this determination within the industry; not only does the data necessary for attribution analyses come from the individual companies' own self-reporting,²⁶⁶ but these companies also tend to employ or at least have access to numerous highly-skilled experts who can perform in-depth attribution analyses.²⁶⁷ It would also act to "smoke out"²⁶⁸ those defendants whose self-reported figures are inaccurate, for example, since the potentially enormous sums at stake would incentivize intra-industry investigation and other methods of ascertaining just apportionment.

For areas that typically experience extreme weather, but nonetheless experience degrees of severity that differ from typical weather patterns had defendants not been negligent,²⁶⁹ damages can be limited. One way to limit

jointly; that is, as defendants in one action, or of suing each upon his several liability in a separate action.

Id.

262. *Id.* (discussing the theory of apportionment).

263. See HEEDE, *supra* note 8, at 13 (identifying specific GHG outputs by individual companies).

264. See RESTATEMENT (THIRD) OF TORTS: APPOINTMENT OF LIABILITY § 10 (AM. LAW INST. 2000) ("When, under applicable law, some persons are jointly and severally liable to an injured person, the injured person may sue for and recover the full amount of recoverable damages from any jointly and severally liable person.").

265. See *Sindell v. Abbott Labs.*, 26 Cal. 3d 588, 611–12 (1980) (imposing market-share liability on manufacturers of DES).

266. See HEEDE, *supra* note 8, at 13 (noting how their attribution analyses sought "reliable and publicly available production data, preferably self-reported by the [Carbon] producers.").

267. See Nuccitelli, *supra* note 160 (noting how Exxon was at the "cutting edge of climate science research" and was informed by its own scientists that "[t]he consensus is that a doubling of atmospheric CO₂ from its pre-industrial revolution value would result in an average global temperature rise of (3.0 ± 1.5)°C . . . There is unanimous agreement in the scientific community that a temperature increase of this magnitude would bring about significant changes in the earth's climate, including rainfall distribution and alterations in the biosphere.").

268. RICHARD A. EPSTEIN & CATHERINE M. SHARKEY, *CASES AND MATERIALS ON TORTS* (11th ed.) (discussing the "smoke-out" function of *res ipsa loquitur*).

269. See, e.g., Yoon et al., *supra* note 258, at S5 ("The fire season in northern California during 2014 was the second largest in terms of burned areas since 1996. An increase in fire risk in California is attributable to human-induced climate change."); Conan, *supra* note 258 ("In October and November of 2000, England and Wales experienced the wettest autumn since they started to keep records back in 1766."); *but see* Cheng et al., *supra* note 258 ("The results thus indicate that the net effect of climate change has made agricultural drought less likely and that the current severe impacts of drought on California's agriculture have not been substantially caused

damages is to ascertain the percentage by which the weather event was exacerbated by climate change in general, using that percentage to find the probable extent of damage that would have occurred had there been no negligence, and reducing the defendant's liability by the difference in like damage costs.²⁷⁰

2. Nuisance

In general, there are two types of nuisance; a private nuisance is “an activity that substantially and unreasonably interferes with the use and enjoyment of land,”²⁷¹ whereas a public nuisance is “an unreasonable interference with a right common to the general public.”²⁷²

At first glance, the theory of nuisance sounds advantageous to the potential plaintiff, considering the focus on the reasonability of the interference.²⁷³ However, that aspect of the claim proved problematic for the plaintiffs in *Connecticut v. American Electric Power*, who had claimed that about “ten percent of all anthropogenic carbon dioxide emissions in the United States” was caused by the specific defendant utilities.²⁷⁴ This case was dismissed for posing a nonjusticiable political question²⁷⁵ since adjudicating the nuisance claim would require a judicial determination of how much CO₂ constitutes an “unreasonable interference.”

As such, it appears that alleging nuisance is both unworkable in the sense that it requires an outright judicial determination of reasonableness,²⁷⁶ but it is also unnecessary given the fact that negligence could easily achieve the same result. And, even though negligence also involves assessment of reasonableness, the reasonableness in the negligence context is relative to the level of risk created by

by long-term climate changes.”).

270. See RESTATEMENT (THIRD) OF TORTS: APPORTIONMENT LIABILITY § 26 (AM. LAW INST. 2000).

When damages for an injury can be divided by causation, the factfinder first divides them into their indivisible component parts and separately apportions liability for each indivisible component part . . .

Damages can be divided by causation when the evidence provides a reasonable basis for the factfinder to determine: (1) that any legally culpable conduct of a party or other relevant person to whom the factfinder assigns a percentage of responsibility was a legal cause of less than the entire damages for which the plaintiff seeks recovery and (2) the amount of damages separately caused by that conduct.

Id.; see also *id.* § A19 (“If one defendant and at least one other party . . . may be found . . . to have engaged in tortious conduct that was a legal cause of an indivisible injury, each such party and settling tortfeasor is submitted to the factfinder for assignment of a percentage of comparative responsibility.”).

271. RESTATEMENT (SECOND) OF TORTS § 821d (AM. LAW INST. 1979).

272. *Id.* § 821B (1).

273. *Id.* § 821 (defining private nuisance as an “unreasonable interference” with land and a public nuisance as an “unreasonable interference with a right common to the general public”).

274. Complaint at 26, *Conn. v. Am. Elec. Power*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005) (No. 04 Civ. 5669 (LAP)).

275. *Conn. v. Am. Elec. Power*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005).

276. RESTATEMENT (SECOND) OF TORTS § 821B (1) (AM. LAW INST. 1979).

the defendant and the type of injury received by the plaintiff.²⁷⁷ In that sense, it is not so much a policy determination of what level of CO₂ in the atmosphere, given numerous economic, social, and political factors, is reasonable; rather, it is a common-place judicial assessment of whether the defendant's conduct created an unreasonable risk to the plaintiffs.²⁷⁸

V. CONCLUSION

A cause of action rooted in common law negligence brought by private plaintiffs would be the most effective means of providing individuals with relief and deterring future misconduct. Just as Big Tobacco could no longer defend itself by decrying the personal responsibility of the smoker,²⁷⁹ Big Oil should no longer be able to deny, downplay, or shift the blame for global warming onto people who drive cars, buy commercially manufactured sneakers, or use plastic. Not only has it concealed the dangerous nature of these activities,²⁸⁰ but it has also purposefully confused the public using political and media bribery.²⁸¹ It has rendered our system of government disloyal to the American people, and the planet itself. This emblematic coup d'état by Big Oil forecloses the normal channels of legislative and executive regulation, at least for the foreseeable future, and necessitates alternative methods of accountability by the people themselves.

277. *Palsgraf v. Long Island R. Co.*, 162 N.E. 99, 104 (N.Y. 1928).

278. *Id.*

279. *Hite v. R.J. Reynolds Tobacco Co.*, 578 A.2d 417 (Pa. Super. Ct. 1990) (arguing that people who smoked cigarettes were doing so at their own risk, despite the fact that the risks are better known to the public).

280. *See* Milman, *supra* note 3.

281. *See* MIT W. HEMISPHERE PROJECT, *supra* note 34 (commenting on governmental misrepresentation of science in the climate change context).