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Lest We Be Lemmings

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The current state of affairs . . . reveals a wholesale failure of the legal system to protect humanity from the collapse of finite natural resources by the uncontrolled pursuit of short-term profits. . . . [T]he modern judiciary has enfeebled itself to the point that law enforcement can rarely be accomplished by taking environmental predators to court.

—Alfred T. Goodwin, *A Wake-Up Call for Judges*
2015 Wis. L. Rev. 785, 785–86, 788 (2015)

[T]here is no liberty, if the power of judging be not separated from the legislative and executive powers.

—THE FEDERALIST NO. 78 (Alexander Hamilton)

When the seas envelop our coastal cities, fires and droughts haunt our interiors, and storms ravage everything between, those remaining will ask: Why did so many do so little?

—Judge Josephine L. Staton
Dissenting opinion in *Juliana v. United States*, January 2020

INTRODUCTION

On August 12, 2015, in the case of *Juliana v. United States*,[1] twenty-one youths, most of them minors, sued the U.S. government, then-President Obama, and numerous federal agencies[2] for failing to protect them from global warming and actively promoting the fossil fuel industry for decades.[3] As of that date, neither the U.S. executive branch nor Congress had taken any action to directly regulate the fossil fuel industry, reduce the lucrative subsidies that they provide to the fossil fuel industry, or hold the industry liable for global warming.[4] This was the case, despite the fact that both the U.S. government and the fossil fuel industry had known for decades that global warming was occurring and the primary cause of global warming was the increasing saturation of the earth's atmosphere with

1 Juliana v. United States (*Juliana I*), 217 F. Supp. 3d 1224 (D. Or. 2016).

2 These federal agencies included, for example, the Council on Environmental Quality, the Office of Management and Budget, the Office of Science and Technology Policy, the Department of Energy, the Department of the Interior, the Department of Transportation, the Department of Agriculture, the Department of Defense, the Department of State, and the Environmental Protection Agency. *Id.* at 1234.

3 *Id.* at 1233; Megan Raymond, *A Hypothetical Win for* Juliana *Plaintiffs: Ensuring Victory Is More than Symbolic*, 46 ECOLOGY L.Q. 705, 709 (2019).

4 *See infra* text accompanying notes 93–155.

CO_2, which is emitted when fossil fuels are burned.[5] Furthermore, during the decades leading up to this lawsuit, CO_2 emissions and the average global temperature had continued to rise,[6] and each of the youth plaintiffs had suffered particularized injuries as a result of global warming.[7]

The *Juliana* plaintiffs claimed, among other things, that the U.S. government, through its actions and omissions, was violating their Fifth Amendment rights to life, liberty, and property.[8] They sought a declaratory judgment to this effect and an injunction ordering the defendants to implement a plan to decrease greenhouse gas (and especially CO_2) emissions.[9] Almost without exception, the district court denied the many motions and writs filed by the defendants in *Juliana*,[10] but the U.S. Court of Appeals for the Ninth Circuit, on January 17, 2020, held that the *Juliana* case should be dismissed on the ground that the plaintiffs lacked standing to bring the suit.[11]

The Ninth Circuit conceded that the plaintiffs pleaded facts sufficient to establish that each plaintiff had suffered a particularized injury and could trace his or her injuries to the defendants' actions and omissions regarding global warming.[12] Still, the Ninth Circuit held that the plaintiffs did not possess standing to obtain the requested declaratory judgment because such a judgment would provide only "psychic satisfaction" to the plaintiffs and not substantially remedy the plaintiffs' injuries in fact.[13] Furthermore, the Ninth Circuit held that the plaintiffs did not possess standing to obtain the requested injunction because issuing and monitoring such an injunction would require the court to decide various policy issues that are the province of the U.S.

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5 *See infra* text accompanying notes 35–46.

6 *See infra* text accompanying note 331. None of these background points has changed as of the date of publication of this Article. *World of Changes: Global Temperatures*, NASA, https://earthobservatory.nasa.gov/world-of-change/global-temperatures [https://perma.cc/69B4-RRR6] (last visited Nov. 30, 2023).

7 *Juliana I*, 217 F. Supp. 3d at 1242.

8 First Amended Complaint for Declaratory and Injunctive Relief ¶¶ 277–89, Juliana v. United States, 217 F. Supp. 3d 1224 (D. Or. 2016) (No. 6:15–cv–01517–TC) [hereinafter First Amended Complaint], https://static1.squarespace.com/static/571d109b04426270152febe0/t/57a35ac5ebbd1ac03847eece/1470323398409/YouthAmendedComplaintAgainstUS.pdf [https://perma.cc/6E4X-Y5C2].

9 *Juliana I*, 217 F. Supp. 3d at 1233.

10 *See infra* text accompanying notes 344–87.

11 Juliana v. United States (*Juliana II*), 947 F.3d 1159, 1175 (9th Cir. 2020).

12 *Id.* at 1168.

13 *Id.* at 1170.

executive branch and Congress, not the judicial branch, to decide.[14] In sum, the Ninth Circuit stated that the plaintiffs needed to seek relief for their injuries not from the judicial branch but from the executive branch and Congress, where the plaintiffs could vote out any government officials who had disappointed them.[15]

Both of the Ninth Circuit's opinions are absurd. A declaratory judgment by a U.S. federal court that states that the executive branch is violating the plaintiffs' Fifth Amendment rights to life, liberty, and property by continually promoting the fossil fuel industry would get the world's attention.[16] Furthermore, the executive branch, as a result, would almost certainly alter its behavior in some manner so as to at least slow or reduce the injuries that the plaintiffs are suffering on account of global warming.[17] In addition, as discussed in Section V.C, such a declaratory judgment would at least be implicitly accompanied by a mirror-image injunction ordering the defendants to stop violating the plaintiffs' Fifth Amendment rights in this manner.[18] Our democracy expects that government officials will comply with a declaratory judgment.[19] For all the reasons discussed below in Part VI, the Ninth Circuit's holding that the plaintiffs do not possess standing to obtain such a declaratory judgment is incorrect.[20]

If it were possible, the Ninth Circuit's holding that the plaintiffs do not possess standing to obtain injunctive relief would be even more insulting than its holding that the plaintiffs do not possess standing to obtain a declaratory judgment. With respect to injunctive relief, the Ninth Circuit stated that the plaintiffs must not seek relief from the judicial branch but from the two political branches of government, Congress and the executive branch, with the latter actually being the

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14 *Id.* at 1171–72.

15 *Id.* at 1175.

16 *See, e.g.*, Robinson Meyer, *A Climate-Lawsuit Dissent That Changed My Mind*, ATLANTIC (Jan. 22, 2020), https://www.theatlantic.com/science/archive/2020/01/read-fiery-dissent-childrens-climate-case/605296/ [https://perma.cc/NZ5Y-5GS5] (stating that the case of *Juliana v. United States*, in which the plaintiffs are making this claim, is "extraordinary").

17 *See, e.g.*, Proposed Second Amended Complaint for Declaratory and Injunctive Relief ¶¶ 12, 95A, 95B, 212, 276-A, Juliana v. United States, No. 6:15–cv–01517–AA (D. Or. Mar. 9, 2021), ECF No. 462–1, https://static1.squarespace.com/static/571d109b04426270152febe0/t/6047b28d4edb0021274388a2/1615311523376/Doc+462-1+Proposed+Second+Amended+Complaint.pdf [https://perma.cc/L7VQ-XBFF].

18 *See infra* text accompanying notes 480–83.

19 Utah v. Evans, 536 U.S. 452, 463–64 (2002).

20 *See infra* text accompanying notes 404–606.

defendant in this case.[21] Unsurprisingly, no other court has held that the plaintiff must seek relief from the defendant for injuries that the defendant has inflicted on the plaintiff, while the court itself is powerless to provide any relief to the plaintiff. Furthermore, one of the *Juliana* plaintiffs' main arguments is that the two political branches of the U.S. government have continued to promote the fossil fuel industry's interests for decades because the branches have been corrupted by the various machinations of this industry,[22] and accordingly, these branches, in the absence of a court order, cannot be relied upon to regulate the fossil fuel industry and protect the plaintiffs from the negative effects of global warming.[23] Finally, the Ninth Circuit's holding on injunctive relief suggested that the plaintiffs can simply replace major officials of the U.S. executive branch and Congress at the ballot box.[24] This suggestion is particularly obnoxious, as it ignores the fact that most of the plaintiffs were minors at the time that they filed their suit in *Juliana*,[25] and minors cannot vote in U.S. elections.[26]

In essence, the Ninth Circuit opinion holds that residents have no remedy when the executive branch and Congress are controlled by a dangerous industry and cannot be relied on to protect the residents, even if the residents' lives are in danger.[27] Certainly, the founding fathers of the United States could not have intended that residents simply accept their demise whenever the two political branches are controlled by a dangerous industry,[28] just as lemmings occasionally throw themselves off cliffs to their deaths, at least in mythology.[29] At a minimum, a federal court, in such a situation, must possess the power

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21 *Juliana II*, 947 F.3d 1159, 1175 (9th Cir. 2020).

22 *See infra* text accompanying notes 95–331.

23 *See, e.g.*, Proposed Second Amended Complaint, *supra* note 17, ¶ 178 ("The United States supports fossil fuel development by allowing the fossil fuel industry to avoid the true social cost of CO_2 emissions from fossil fuels.").

24 *Juliana II*, 947 F.3d at 1175.

25 First Amended Complaint, *supra* note 8, ¶¶ 16–97.

26 *See, e.g.*, *Who Can and Cannot Vote*, USA.GOV (Aug. 22, 2023), https://www.usa.gov/who-can-vote [https://perma.cc/2NZ9-9PQ5].

27 *See, e.g.*, *Juliana II*, 947 F.3d at 1175 (Staton, J., dissenting) ("It is as if an asteroid were barreling toward Earth and the government decided to shut down our only defenses. Seeking to quash this suit, the government bluntly insists that it has the absolute and unreviewable power to destroy the Nation.").

28 *See infra* text accompanying *infra* notes 416–27.

29 *See, e.g.*, *Do Lemmings Really Commit Mass Suicide?*, BRITANNICA, https://www.britannica.com/story/do-lemmings-really-commit-mass-suicide [https://perma.cc/96CC-WBR4] (last visited Sept. 19, 2023).

to declare that one or both of the other two political branches of government violated residents' U.S. constitutional rights and order the offending branch(es) to cease such violations.

The Ninth Circuit's opinion regarding the *Juliana* plaintiffs' explicit request for injunctive relief may be addressed in a subsequent paper. This Article explains why the Ninth Circuit's opinion that the *Juliana* plaintiffs do not possess standing to obtain their requested declaratory judgment is incorrect. Part I addresses the knowledge of climate scientists, the U.S. government, and the fossil fuel industry, of the existence, causes, and effects of global warming. Part II discusses the U.S. government's failure to regulate the fossil fuel industry, reduce federal subsidies to the industry, and hold the industry accountable for global warming. Part III explains the fossil fuel industry's strategy for denying responsibility for global warming. Part IV discusses the opinions of the U.S. District Court for the District of Oregon and Ninth Circuit in the case of *Juliana v. United States*.[30] Part V explains the many reasons why the Ninth Circuit's opinion that the plaintiffs do not possess standing to obtain a declaratory judgment is incorrect.

I
KNOWLEDGE OF EXISTENCE, CAUSES, AND EFFECTS OF GLOBAL WARMING

Global warming (or climate change) refers to "an increase in combined surface air and sea surface temperatures averaged over the globe and over a 30-year period. Unless otherwise specified, warming is expressed relative to the period 1850-1900,"[31] and the overwhelming majority of climate scientists around the world today agree that (1) global warming is occurring, (2) the primary cause of global warming is the saturation of the earth's atmosphere with greenhouse gases (gases that trap the sun's heat in the earth's atmosphere rather than reflect it back out into space),[32] (3) the saturation of the earth's atmosphere is primarily caused by the burning of fossil fuels and the emission of CO_2 into the atmosphere, and (4) global warming will cause much more frequent and severe climate catastrophes (for

30 *Juliana I*, 217 F. Supp. 3d 1224 (D. Or. 2016); *Juliana II*, 947 F.3d 1159 (9th Cir. 2020).

31 Myles R. Allen et al., *Framing and Context*, *in* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, GLOBAL WARMING OF 1.5°C 49, 51 (Valérie Masson-Delmotte et al. eds., 2018), https://www.ipcc.ch/sr15/chapter/chapter-1/ [https://perma.cc/8E8C-NF3N].

32 *See, e.g.*, *Global Climate Change: The Causes of Climate Change*, NASA, https://climate.nasa.gov/causes/ [https://perma.cc/YK3Z-ZPNA] (last visited Sept. 19, 2023).

example, floods, droughts, wildfires, and hurricanes) if global warming continues unabated.[33] Less well known is that climate scientists have known these facts for many decades.[34]

In 1856, American Eunice Foote demonstrated, using sunlight, that CO_2 could absorb heat, and she hypothesized that an increase in CO_2 would result in a warmer planet.[35] Then, in 1859, Irishman John Tyndall similarly reported that "CO_2 is a greenhouse gas—meaning that it traps heat and keeps it from escaping to outer space."[36] In the early 1900s, Swedish geochemist Svante Arrhenius revealed that the release of CO_2 into the atmosphere by burning fossil fuels could warm the earth's climate.[37] Then, in 1938, British engineer Guy Callendar published his empirical studies demonstrating that both land temperatures and CO_2 concentrations had increased over the previous fifty years, and he conjectured that fossil fuels' "greenhouse effect" on the world's climate may already be detectable.[38]

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33 Robert Lee Hotz & Timothy Puko, *Some Climate Change Effects May Be Irreversible, U.N. Panel Says*, WALL ST. J. (Aug. 9, 2021, 4:00 AM), https://www.wsj.com/articles/some-climate-change-effects-may-be-irreversible-u-n-panel-report-says-11628496000 [https://perma.cc/QY6Y-XFFZ]; *Causes of Climate Change*, EUR. COMM'N, https://climate.ec.europa.eu/climate-change/causes-climate-change_en [https://perma.cc/QC9H-JDHK] (last visited Sept. 19, 2023); *see* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS (Valérie Masson-Delmotte et al. eds., 2021) [hereinafter CLIMATE CHANGE 2021], https://www.ipcc.ch/report/ar6/wg1 [https://perma.cc/HG5C-UEN8] (addressing "the most up-to-date physical understanding of the climate system and climate change").

34 *See infra* text accompanying note 93.

35 Robert Jackson, Opinion, *John Tyndall—The Forgotten Co-Discoverer of Climate Science*, UNIV. COLL. LONDON NEWS (July 31, 2020), https://www.ucl.ac.uk/news/2020/jul/opinion-john-tyndall-forgotten-co-discoverer-climate-science#:~:text=In%201859%2C%20Tyndall%20showed%20that,emanating%20from%20the%20Earth's%20surface [https://perma.cc/L9FJ-JCFW].

36 NAOMI ORESKES & ERIK M. CONWAY, MERCHANTS OF DOUBT 170 (2011) (referring to John Tyndall's studies demonstrating that CO_2 and water vapor can absorb heat).

37 *Id.* (referring to Arrhenius' work connecting fossil fuels with CO_2 emissions). See also the discussion in American Institute of Physics. Spencer Weart, *The Discovery of Global Warming: The Carbon Dioxide Greenhouse Effect*, AM. INST. PHYSICS (Mar. 2015), [https://web.archive.org/web/20161111201545/https:/www.aip.org/history/climate/co2.htm].

38 ORESKES & CONWAY, *supra* note 36 (referring to Callendar's compiling of the first empirical evidence of the "greenhouse effect"); *see also* Ed Hawkins & Phil D. Jones, *On Increasing Global Temperatures: 75 Years After Callendar*, 139 Q.J. ROYAL METEOROLOGICAL SOC'Y 1961 (2013), https://centaur.reading.ac.uk/32981/1/hawkins_jones_2013.pdf [https://perma.cc/GE8D-93Q9].

In 1957, Roger Revelle, a prominent oceanographer and director of the Scripps Institution of Oceanography,[39] wrote a paper with Hans Seuss and concluded that the oceans could not absorb all the CO_2 that humans emitted into the atmosphere.[40] Prior to the publication of this paper, many people believed that, even if CO_2 emissions were increasing, this was unimportant because the oceans would simply absorb these emissions.[41] This 1957 paper is "now widely regarded as the opening shot in the global warming debates,"[42] and following publication of this paper, other climate scientists and the media began referring to Revelle as "the father of global warming."[43]

By the end of the 1950s, Revelle decided that more systematic measurements of CO_2 in the atmosphere needed to be taken.[44] Accordingly, he obtained funding for his colleague, Charles David Keeling, to conduct this research.[45] Keeling's research revealed the "Keeling Curve," which demonstrated that CO_2 in the atmosphere was, in fact, increasing steadily over time.[46] Former Vice President Al Gore, who had studied under Revelle at Harvard University and considered him a mentor, later brought the Keeling Curve to the public's attention in his 1988 and 2002 presidential campaigns, more than 1,000 public conferences, and his movie, *An Inconvenient Truth*.[47]

In 1965, President Lyndon Johnson's Science Advisory Committee asked Revelle to put together a team and prepare a report on the possible causes and effects of global warming.[48] In this report, Revelle

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39 *See, e.g.*, Walter H. Munk, *Tribute to Roger Revelle and His Contribution to Studies of Carbon Dioxide and Climate Change*, 94 PROC. NAT'L ACAD. SCIS. U.S. 8275 (1997), https://europepmc.org/article/pmc/pmc33716#free-full-text [https://perma.cc/V9SJ-FA37].

40 *See, e.g.*, Philip Quarles, *Roger Revelle, Father of Global Warming, Predicts Life in the 21st Century*, N.Y. PUB. RADIO (Jan. 5, 2017), https://www.wnyc.org/story/roger-revelle-father-global-warming-predicts-life-21st-century/ [https://perma.cc/M4KN-28GD].

41 *Id.*

42 *Id.*

43 *Id.*; *see also* Carolyn Revelle Hufbauer, *Global Warming: What My Father Really Said*, WASH. POST (Sept. 13, 1992), https://www.washingtonpost.com/archive/opinions/1992/09/13/global-warming-what-my-father-really-said/5791977b-74b0-44f8-a40c-c1a5df6f744d/ [https://perma.cc/Y36K-MEJ5].

44 Rob Monroe, *The History of the Keeling Curve*, KEELING CURVE (Apr. 3, 2013), https://keelingcurve.ucsd.edu/2013/04/03/the-history-of-the-keeling-curve/ [https://perma.cc/L7H7-J5RU].

45 *Id.*

46 *Id.* Al Gore made the "Keeling Curve" the centerpiece of his 2006 film *An Inconvenient Truth*, over 1,000 public presentations to educate the public about climate change, and his two presidential campaigns.

47 ORESKES & CONWAY, *supra* note 36, at 190.

48 *Id.* at 1.

and his colleagues were very cautious and conceded that many things still were unknown about global warming.[49] At the same time, they debunked the inaccurate theories touted by climate change deniers, demonstrated (through the Keeling Curve) that CO_2 levels were rising, illustrated how global temperatures likewise were rising, and explained some of the likely adverse consequences of global warming for Americans and humanity in general.[50] Additionally, their predictions were amazingly accurate.[51] For example, they predicted that

> [a]ssuming . . . that the proportion remaining in the atmosphere continues to be half the total quantity injected, the increase in atmospheric CO_2 [the total amount of CO_2 found in the atmosphere by volume between 1965 and] . . . 2000 could be somewhere between 14 percent and 30 percent.[52]

In fact, the amount of CO_2 in the atmosphere increased 15.5% between 1965 (the date of their report) and 2000, and it increased twenty-five percent between 1965 and 2015.[53]

President Johnson clearly read Revelle's report, as he mentioned it in a Special Message to Congress that year.[54] In his Special Message, he stated that "[t]his generation has altered the composition of the atmosphere on a global scale through . . . a steady increase in carbon dioxide from the burning of fossil fuels."[55]

In 1988, James E. Hansen, director of the Goddard Institute for Space Studies, testified before the Senate regarding his studies demonstrating that it appeared that anthropogenic (man-made) global warming had already begun.[56] Like a good scientist should, Hansen had considered several different possible causes of global warming, and Figure 5 in his report demonstrated that the sun, CO_2, and

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49 *Id.*

50 Robert Revelle et al., *Appendix Y4: Atmospheric Carbon Dioxide*, *in* PRESIDENT'S SCI. ADVISORY COMM., RESTORING THE QUALITY OF OUR ENVIRONMENT 111 (1965) [hereinafter *Appendix Y4*], https://legacy-assets.eenews.net/open_files/assets/2019/01/11/document_cw_01.pdf [https://perma.cc/2QGF-U4UW]; *see also* ORESKES & CONWAY, *supra* note 36, at 170.

51 *See, e.g.*, Marianne Lavelle, *A 50th Anniversary Few Remember: LBJ's Warning on Carbon Dioxide*, JACKSON FREE PRESS (Feb. 2, 2015, 12:37 PM) [hereinafter Lavelle 1], https://www.jacksonfreepress.com/news/2015/feb/02/50th-anniversary-few-remember-lbjs-warning-carbon-/ [https://perma.cc/WN3U-7GHQ].

52 *Appendix Y4*, *supra* note 50, at 119; *see also* ORESKES & CONWAY, *supra* note 36, at 170.

53 Lavelle 1, *supra* note 51.

54 ORESKES & CONWAY, *supra* note 36, at 171.

55 *Id.*

56 *Id.* at 185.

volcanoes each played a role in global warming.[57] However, his studies more specifically concluded that the earth had already warmed approximately one degree Fahrenheit relative to the 1950–1980 average, and the probability that this could be explained solely by natural events (e.g., the sun and/or volcanoes) was only one percent.[58]

By 1988, the world was alarmed by the possible disastrous effects of global warming, and accordingly, the United Nations (U.N.) General Assembly endorsed the creation of the Intergovernmental Panel on Climate Change (IPCC) by the World Meteorological Organization (WMO) and the U.N. Environment Program (UNEP)[59] with the purpose of publishing reports, referred to as "Assessments," regarding the causes and effects of global warming.[60] The IPCC is intended to be completely apolitical, and it does not conduct its own research but, rather, compiles published reports from thousands of climate scientists around the world.[61] Since its commencement, the IPCC has published six Assessments, and at least today, each Assessment consists of three parts: (1) The Physical Science Basis of Climate Change; (2) Climate Change Impacts, Adaptation, and Vulnerability, and (3) Mitigation of Climate Change.[62] The IPCC also occasionally publishes a Special Report.[63]

The First IPCC Assessment was published in 1990.[64] The authors of Working Group I, on the Scientific Assessment of Climate Change, concluded in the Executive Summary of their Summary for Policymakers that human activities were causing the atmosphere to

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57 *Id.* at 156.

58 *Id.* at 154.

59 LAURENCE BOISSON DE CHAZOURNES, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (2008), https://legal.un.org/avl/pdf/ha/ccc/ccc_e.pdf [https://perma.cc/TE64-WBEX]; INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE [hereinafter IPCC], https://www.ipcc.ch/ [https://perma.cc/9TZC-8RVD] (last visited Sept. 19, 2023); *History of the IPCC*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, https://www.ipcc.ch/about/history/#:~:text=The%20establishment%20of%20the%20IPCC,UN%20General%20Assembly%20in%201988.&text=Since%201988%2C%20the%20IPCC%20has,about%20climate%20change%20produced%20worldwide [https://perma.cc/RC39-4JND] (last visited Sept. 19, 2023).

60 IPCC, *supra* note 59; *History of the IPCC*, *supra* note 59.

61 IPCC, *supra* note 59; *History of the IPCC*, *supra* note 59.

62 *About the IPCC*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, https://www.ipcc.ch/about/ (last visited Jan. 3, 2023).

63 *See, e.g.*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, IPCC SPECIAL REPORT ON CARBON DIOXIDE CAPTURE AND STORAGE (Bert Metz et al. eds., 2005), https://repository.ubn.ru.nl/bitstream/handle/2066/230961/230961.pdf?sequence=1 [https://perma.cc/K6X2-KSLK].

64 *History of the IPCC*, *supra* note 59.

become saturated with greenhouse gases and these gases were causing the earth's surface to warm.[65] The authors also stated that at least one-half of the greenhouse effect could be attributed to CO_2 emissions, and they predicted that the mean global temperature would increase by approximately 0.3°C per decade during the twenty-first century.[66]

The official publication date of the Second IPCC Assessment is December 1995,[67] although parts of this Assessment were finalized in 1996.[68] As discussed further below in Section III of this Article, the IPCC's Second Assessment and, especially Chapter 8 of that Assessment, focused on new fingerprinting evidence that could parse out different natural and man-made causes of global warming and ultimately supported the conclusion that greenhouse gasses, in general, and CO_2, in particular, are the primary cause of global warming.[69] As discussed below, the fossil fuel industry considered this evidence to be so damaging to its business activities that it perpetrated a conspiracy theory intended to discredit the IPCC's Second Assessment.[70]

The Third IPCC Assessment was published in 2001, and it focused on effects of global warming and ways in which various societies could adapt to it.[71] The Fourth IPCC Assessment was published in 2007 and advised that, based on the likely disastrous effects, the international community should in no way permit the mean global temperature to rise 2°C above the preindustrial mean global temperature and preferably should not permit the mean global temperature to rise more than 1.5°C above the preindustrial mean global temperature.[72] The Fifth IPCC Assessment was published in 2013 and 2014, and it

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65 INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE: THE IPCC SCIENTIFIC ASSESSMENT xi (J.T. Houghton et al. eds., 1990), https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_full_report.pdf [https://perma.cc/9338-JHD4].

66 *Id.*

67 INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, IPCC SECOND ASSESSMENT: CLIMATE CHANGE 1995 (1995) [hereinafter IPCC SECOND ASSESSMENT], https://www.ipcc.ch/site/assets/uploads/2018/05/2nd-assessment-en-1.pdf [https://perma.cc/YN53-BRKT].

68 *See infra* text accompanying note 237.

69 IPCC SECOND ASSESSMENT, *supra* note 67, at 21–24; *see also infra* text accompanying notes 210–29.

70 *See infra* text accompanying notes 189–90, 226–72.

71 DANIEL L ALBRITTON ET AL., INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2001: SYNTHESIS REPORT (Robert T. Watson & Core Writing Team eds., 2001), https://www.ipcc.ch/report/ar3/syr/ [https://perma.cc/96WD-BSMY]; *see also History of the IPCC*, *supra* note 59.

72 LENNY BERNSTEIN ET AL., INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT (Rajendra K. Pachauri et al. eds., 2007), https://www.ipcc.ch/report/ar4/syr/ [https://perma.cc/83JS-ZTUU].

confirmed this advice.[73] This advice then became the basis of the Paris Agreement[74] signed by the international community in 2015.[75] To reach this temperature goal, each signatory to the Paris Agreement published a Nationally Determined Contribution (NDC) setting forth its particular plan to reduce greenhouse gas emissions, but the parties' NDCs are nonbinding.[76]

The Sixth Assessment of the IPCC essentially was a call to action as the planet has been warming faster with far more deadly results than had been predicted.[77] U.N. Secretary General António Guterres described the report as "an atlas of human suffering and a damning indictment of failed climate leadership."[78] The first section of the Sixth Assessment[79] was published in August 2021, the second section of the Sixth Assessment[80] was published in February 2022, and the third section of the Sixth Assessment[81] was published in April 2022.[82]

According to the Sixth Assessment authors, few of the parties to the Paris Agreement are meeting their NDCs,[83] only twenty-four countries

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73 RAJENDRA K. PACHAURI ET AL., INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: SYNTHESIS REPORT v (Rajendra K. Pachauri et al. eds., 2015), https://www.ipcc.ch/report/ar5/syr [https://perma.cc/8L9Z-UJTZ].

74 Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16–1104 [hereinafter Paris Agreement], http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf [https://perma.cc/95PQ-4DWF].

75 *Id.*

76 *Id.*

77 Aruna Chandrasekhar et al., *In-Depth Q&A: The IPCC's Sixth Assessment on How Climate Change Impacts the World*, CARBON BRIEF (Feb. 28, 2022, 17:20), https://www.carbonbrief.org/in-depth-qa-the-ipccs-sixth-assessment-on-how-climate-change-impacts-the-world/ [https://perma.cc/8ZVN-ELGX].

78 *Id.*

79 CLIMATE CHANGE 2021, *supra* note 33.

80 INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2022: IMPACTS, ADAPTATION, AND VULNERABILITY, (Hans-Otto Pörtner et al. eds., 2022), https://www.ipcc.ch/report/ar6/wg2/ [https://perma.cc/EM4E-WGSU].

81 INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE (Priyadarshi R. Shukla et al. eds., 2022), https://www.ipcc.ch/report/ar6/wg3/ [https://perma.cc/66UK-X9GL].

82 Courtney Lindwall, *IPCC Climate Change Reports: Why They Matter to Everyone on the Planet*, NAT. RES. DEF. COUNCIL (Apr. 14, 2023), https://www.nrdc.org/stories/ipcc-climate-change-reports-why-they-matter-everyone-planet#:~:text=The%20conclusions%20of%20the%20IPCC's,immediately%20to%20cut%20emissions%20deeply [https://perma.cc/C36L-6SJG].

83 *See, e.g.*, Stephen Leahy, *Most Countries Aren't Hitting 2030 Climate Goals, and Everyone Will Pay the Price*, NAT'L GEOGRAPHIC (Nov. 5, 2019), https://www.nationalgeographic.com/science/article/nations-miss-paris-targets-climate-driven-weather-events-cost-billions [https://perma.cc/6H89-3DBZ]; Nsikan Akpan, *Only 2 Countries Are Meeting*

are actually reducing their greenhouse emissions,[84] and countries must establish and then comply with much more ambitious NDCs to have any chance of meeting the 1.5°C Paris Agreement goal.[85] Experts predict that the mean global temperature will rise to 4°C above the mean preindustrial global temperature if countries continue to conduct business as usual,[86] and even if countries were to meet their modest initial NDCs under the Paris Agreement, the mean global temperature would rise between 2.9°C and 3.4°C above the mean preindustrial global temperature.[87]

More specifically, an IPCC Special Report emphasized that "the [Paris Agreement] parties must reduce their greenhouse gas emissions by at least 45% as compared to 2010 emission levels by 2030 . . . if they want to have a realistic chance of meeting the temperature goals stated in the Paris Agreement."[88] Moreover, the authors of the Sixth

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Their Climate Pledges. Here's How the 10 Worst Could Improve, PBS (Sept. 26, 2019, 3:36 PM), https://www.pbs.org/newshour/science/only-2-countries-are-meeting-their-climate-pledges-heres-how-the-10-worst-could-improve [https://perma.cc/YM3J-TKAA].

84 *See, e.g.*, *The Latest IPCC Report: What Is It and Why Does It Matter?*, NATURE CONSERVANCY (Mar. 20, 2023), https://www.nature.org/en-us/what-we-do/our-insights/perspectives/ipcc-report-climate-change/#:~:text=The%20latest%20IPCC%20report%20shows,avoid%20even%20more%20catastrophic%20impacts [https://perma.cc/C5FZ-4YCX].

85 *See, e.g.*, David Roberts, *The Paris Climate Agreement Is at Risk of Falling Apart in the 2020s*, VOX (Nov. 5, 2019, 10:00 AM), https://www.vox.com/energy-and-environment/2019/11/5/20947289/paris-climate-agreement-2020s-breakdown-trump [https://perma.cc/5NV5-ZAZ9]; Fiona Harvey, *World Is in Danger of Missing Paris Climate Target, Summit Is Warned*, GUARDIAN (Dec. 12, 2020, 14:30), https://www.theguardian.com/environment/2020/dec/12/world-is-in-danger-of-missing-paris-climate-target-summit-is-warned [https://perma.cc/DM5R-QWVU]; Leahy, *supra* note 83 (stating, in part, that "[c]ountries need to double and triple their 2030 reduction commitments to be aligned with the Paris target").

86 *See, e.g.*, *Stepping Up NDCs: National Climate Action Under the Paris Agreement*, WORLD RES. INST. [hereinafter *National Climate Action*], https://www.wri.org/ndcs [https://perma.cc/PSP6-WK5Y] (last visited June 20, 2021); Carmen Singer et al., *The 7 Countries Actually Living Up to the Paris Climate Agreement*, GLOB. CITIZEN (Oct. 12, 2018), https://www.globalcitizen.org/en/content/7-countries-paris-climate-agreeement/ [https://perma.cc/Y36B-4ZB9].

87 *See, e.g.*, *National Climate Action*, *supra* note 86; *see also* Shyam Saran, *Paris Climate Talks: Developed Countries Must Do More than Reduce Emissions*, GUARDIAN (Nov. 23, 2015, 5:35 AM), https://www.theguardian.com/environment/2015/nov/23/paris-climate-talks-developed-countries-must-do-more-than-reduce-emissions [https://perma.cc/U7JX-VQ84]; Warren Cornwall, *The Paris Climate Pact Is 5 Years Old. Is It Working?*, SCIENCE (Dec. 11, 2020), https://www.sciencemag.org/news/2020/12/paris-climate-pact-5-years-old-it-working.

88 Claire Wright, *Combatting Climate Change Through Conservation Easements*, 23 MINN. J.L. SCI. & TECH. 175, 209 (2022) (citing Myles R. Allen et al., *Summary for Policymakers*, *in* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, GLOBAL WARMING

IPCC Assessment warned that 2030 "may very well be a 'tipping point,' meaning that self-perpetuating processes may then make reversal of a continually warming world impossible."[89] They went on to note that "[r]ising seas, melting ice caps and other effects of a warming climate may [already] be irreversible for centuries."[90]

Of course, the fossil fuel industry has been aware of all the above-discussed information regarding climate change. In fact, internal company documents reveal that the fossil fuel industry has been aware of the existence and cause of global warming and the grave dangers that global warming poses to humanity since at least the 1950s.[91] As discussed in Part III, despite this knowledge, the fossil fuel industry decided to engage in a decades-long, multibillion-dollar disinformation campaign to hide the connection between CO_2 emissions and global warming.[92]

II
FEDERAL GOVERNMENT'S FAILURE TO REGULATE THE FOSSIL FUEL INDUSTRY AND REDUCE FEDERAL SUBSIDIES TO THE FOSSIL FUEL INDUSTRY

Some states and territories have implemented significant programs to decrease CO_2 emissions.[93] However, to this day, on the federal level,

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OF 1.5°C3, 12 (Valérie Masson-Delmotte et al. eds., 2018), https://www.ipcc.ch/sr15/chapter/spm/ [https://perma.cc/MKQ8-DGS9], among other authorities).

89 *Id.* at 181. "The idea of tipping points was introduced 20 years ago . . . . The loss of the West Antarctic ice sheet and the Amazon rainforest, or extensive thawing of permafrost, as well as other key components of the climate system, are considered 'tipping points' because they can cross critical thresholds, and then abruptly and irreversibly change." *Id.* at 181 n.27 (quoting Leahy, *supra* note 83). Tipping points can be triggered between a warming of 1.0°C and 2.0°C. Without a drastic decline in greenhouse gas emissions by 2030, global warming will increase by 1.[5]°C in the following decades. *Id.*

90 Hotz & Puko, *supra* note 33; *see also Causes of Climate Change*, *supra* note 33.

91 Benjamin Franta, *Early Oil Industry Knowledge of CO_2 and Global Warming*, 8 NATURE CLIMATE CHANGE 1024 (2018).

92 *See infra* text accompanying notes 189–272.

93 *See, e.g.*, *About*, U.S. CLIMATE ALL., https://www.usclimatealliance.org/about/ [https://perma.cc/WAH9-ZJPS] (last visited Sept. 19, 2023). As of mid-July 2021, twenty-three states and two territories have joined what they call the "U.S. Climate Alliance" whose purpose is to decrease greenhouse gas emissions. *Id.* These twenty-three states are Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, and Wisconsin. *Id.*; *see also* Chandler Green, *7 Ways U.S. States Are Leading Climate Action*, UNITED NATIONS FOUND. (May 30, 2019), https://unfoundation.org/blog/post/7-ways-u-s-states-are-leading-climate-action/ [https://perma.cc/GGD2-VV5T].

no President has successfully limited the fossil fuel industry's activities—the exploration, drilling, burning, and sale of fossil fuels, imposed a carbon tax on the CO_2 emissions attributable to the industry, directly limited the quantity of greenhouse gas emissions attributable to the industry, significantly reduced the very lucrative subsidies that the executive branch and Congress have provided to the fossil fuel industry for many decades, or held the industry liable for global warming (or any other negative effect of fossil fuel use, such as local air pollution).[94] This is the case, even though every U.S. President since John F. Kennedy was aware of the threat posed by climate change to the U.S. population and humanity in general.[95]

The Republican Party, which historically has been aligned politically with business,[96] is the natural ally of the very wealthy fossil fuel business.[97] Not surprisingly, while some Republican Presidents since John F. Kennedy protected the environment in major ways,[98] not

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94 *See infra* text accompanying notes 95–148.

95 Benjamin Hulac, *Every President Since JFK Was Warned About Climate Change*, E & E NEWS (Nov 6, 2018, 7:11 AM), https://www.eenews.net/articles/every-president-since-jfk-was-warned-about-climate-change/ [https://perma.cc/DA88-NBW9].

96 Henry Olsen, Opinion, *The Long-Standing Alliance Between the GOP and Big Business Is No More*, WASH. POST (Apr. 21, 2022, 2:38 PM), https://www.washingtonpost.com/opinions/2022/04/21/desantis-florida-disney-big-business-republican-gop-alliance-is-no-more/ [https://perma.cc/J5DT-BRKS].

97 *See, e.g.*, Oliver Milman, *Republicans Pledge Allegiance to Fossil Fuels Like It's Still the 1950s*, GUARDIAN (June 7, 2021, 5:00 AM), https://www.theguardian.com/us-news/2021/jun/07/republicans-fossil-fuels-coal [https://perma.cc/4LC3-AVML]; Michael T. Klare, *Here's Why the GOP Just Loves Fossil Fuels*, GRIST (Nov. 18, 2014), https://grist.org/politics/heres-why-the-gop-just-loves-fossil-fuels/ [https://perma.cc/E4LQ-6YY8] ("So devoted are their leaders to fossil fuel extraction that we should start thinking of [the Republican Party] not as the Grand Old Party, but the Grand Oil Party.").

98 For example, Richard Nixon created the Environmental Protection Agency and was able to get the U.S. Congress to enact both the Clean Air Act of 1970 and the Endangered Species Act of 1973. *The Environmental Legacy of President Nixon*, RICHARD NIXON FOUND. (Apr. 21, 2022), https://www.nixonfoundation.org/2022/04/environmental-legacy-president-nixon/ [https://perma.cc/WT7B-LPD3]. Against the recommendations of his advisors, Ronald Reagan, on behalf of the United States, signed the Montreal Protocol treaty, which initiated the phaseout of chlorofluorocarbons (CFCs), which were depleting the ozone layer of the earth's atmosphere. Joseph Romm, *Reagan Helped Save the Ozone Layer but Ruined America's Leadership in Clean Energy*, GRIST (Feb. 8, 2011), https://grist.org/article/2011-02-07-reagan-helped-save-the-ozone-layer-but-ruined-americas/ [https://perma.cc/ADG8-795P]. To accomplish this, however, Reagan did not need to "tak[e] on the fossil fuel industry or promot[e] clean energy—two things Reagan could not abide." *Id.* George H. W. Bush (Bush I), on behalf of the United States, signed the U.N. Framework Convention on Climate Change (UNFCCC), and this treaty was subsequently ratified by the U.S. Senate on October 7, 1992. Statement on Signing the Instrument of Ratification for the United Nations Framework Convention on Climate Change, 2 PUB. PAPERS 1818 (Oct. 13, 1992), https://bush41library.tamu.edu/archives/public-papers/4953?fbclid=IwAR3vp0zzE

one Republican President has ever attempted to directly regulate the fossil fuel industry or reduce the federal subsidies that the industry receives.[99] Gerald Ford, during his 895 days (or approximately 2.5 years) in office following Richard Nixon's resignation, took the most aggressive action against the fossil fuel industry of any Republican President. Specifically, Ford was able to get Congress to enact minimum efficiency standards for both automobiles and appliances to decrease the quantity of CO_2 emitted from the use of these items.[100] Presidents Ronald Reagan and Donald Trump were openly hostile to any attempt to contravene the interests of the fossil fuel industry. For example, immediately following Reagan's inauguration, he ordered the removal of solar panels on the White House roof, which Carter had directed to be installed,[101] and reversed all Carter's energy-efficiency and alternative-energy initiatives and investments.[102] Similarly, upon his inauguration, Trump reversed all Barack Obama's executive orders on climate change,[103] ordered all federal agencies to reverse Obama's

LT8zzmJL-RYqw6-qDY-h-c3o5D5Oo-vjpJ7M8Vkd9HfExUw6NE [https://perma.cc/2U2H-DBR9]. Bush I also was able to get the U.S. Congress to enact the Clean Air Act of 1990, which was intended primarily to counter acid rain, urban air pollution, and toxic air emissions. Marshall Shepherd, *The Surprising Climate and Environmental Legacy of President George H.W. Bush*, FORBES (Dec. 1, 2018), https://www.forbes.com/sites/marshallshepherd/2018/12/01/the-surprising-climate-and-environmental-legacy-of-president-george-h-w-bush/?sh=b58e24e589c5 [https://perma.cc/32ZB-S46E]. In addition, Bush I successfully promoted the Global Change Research Act of 1990, which "requires the [Global Change Research] Council, at least every four years . . . , to submit to the President and the Congress an assessment regarding . . . the effects of global change[] and current and major long-term trends in global change." *Id.*

99 *See, e.g.*, Oliver Milman, *Can Biden's Climate Bill Undo the Fossil Fuel Industry's Decades of Harm?*, GUARDIAN (Aug. 12, 2022, 7:00 AM) ("Industry lobbying and generous donations have ensured that the Republican party has fallen almost entirely in line with the demands of major oil and gas companies."); Suzanne Goldenberg & Helena Bengtsson, *Oil and Gas Industry Has Pumped Millions into Republican Campaigns*, GUARDIAN (Mar. 3, 2016, 7:00 AM), https://www.theguardian.com/us-news/2016/mar/03/oil-and-gas-industry-has-pumped-millions-into-republican-campaigns [https://perma.cc/YMX9-KCJR].

100 Alan S. Miller, *Energy Policy from Nixon to Clinton: From Grand Provider to Market Facilitator*, 25 ENV'T. L. 715, 716 (1995) (citing 42 U.S.C. § 6201(5) (1988) and David H. Davis, ENERGY POLITICS 105, 113 (1992)). Miller noted that, for automobiles, "President Ford's Administration set efficiency standards aiming for 20 miles per gallon in 1980 and 28 in 1985." *Id.* at n.10–11.

101 *See, e.g.*, David Biello, *Where Did the Carter White House's Solar Panels Go?*, SCI. AM. (Aug. 6, 2010), https://www.scientificamerican.com/article/carter-white-house-solar-panel-array/ [https://perma.cc/LG3X-SGMC].

102 Romm, *supra* note 98.

103 *See id.*; Nadja Popovich et al., *The Trump Administration Rolled Back More than 100 Environmental Rules. Here's the Full List*, N.Y. TIMES (Jan. 20, 2021), https://www.nytimes.com/interactive/2020/climate/trump-environment-rollbacks-list.html [https://perma.cc/52QF-LYM3].

climate change regulatory initiatives,[104] and withdrew the United States from the Paris Agreement, which Obama had signed on behalf of the United States in 2016.[105]

John F. Kennedy, as well as Democratic Presidents Carter, Clinton, Obama, and Biden, who have succeeded him, all attempted to counter global warming in some manner.[106] Some even attempted to directly regulate the fossil fuel industry and/or reduce the lucrative subsidies that the U.S. executive branch and Congress provide to the industry.[107]

For example, Jimmy Carter proposed "a tax of 5 cents-per-gallon on gasoline, starting in 1979 and increasing by 5 cents each year in which the nation used more gasoline than it consumed in a base period."[108] He also proposed an excise tax/rebate tied to the fuel efficiency of different automobile models.[109] Congress enacted neither of these tax proposals.[110] When Carter and Congress agreed to eliminate price controls on oil and gasoline, and the oil companies were expected to reap enormous windfall profits as a result, Congress did enact a seventy percent excise tax on the difference between the market price of oil and a fixed base price, but this tax was repealed in 1988.[111]

Bill Clinton proposed the adoption of a carbon tax, with the intended effect of reducing greenhouse emissions and raising funds to help reverse the federal deficit.[112] However, even though the Democrats controlled both houses of Congress at the time, even democratic lawmakers were not ready to directly regulate the fossil fuel

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104 *See, e.g.*, Valerie Volcovici & Jeff Mason, *Trump Signs Order Dismantling Obama-Era Climate Policies*, REUTERS (Mar. 28, 2017, 5:54 AM), https://www.reuters.com/article/us-usa-trump-energy/trump-signs-order-dismantling-obama-era-climate-policies-idUSKBN16Z1L6 [https://perma.cc/WWH7-AFTU].

105 *See* Framework Convention on Climate Change, Chapter 27 Environment: 7.d) Paris Agreement, *in* U.N. TREATY SERIES n.6 (Dec. 12, 2015), https://treaties.un.org/doc/Publication/MTDSG/Volume%20II/Chapter%20XXVII/XXVII-7-d.en.pdf [https://perma.cc/VN3L-GWQC].

106 *See infra* text accompanying notes 108–34.

107 *See* text accompanying *infra* notes 136–48.

108 *Carter Energy Bill Fails to Clear* 33 *CONG. Q., 708 (1978)*, http://library.cqpress.com/cqalmanac/cqal77-1204123 [https://perma.cc/RL66-V6UK].

109 *Id.*

110 *Id.*

111 *See, e.g.*, Scott A. Hodge, Opinion, *Biden Should Not Repeat Jimmy Carter's Windfall Profits Tax Mistake*, HILL (Nov. 10, 2022, 1:30 PM), https://thehill.com/opinion/finance/3729244-biden-should-not-repeat-jimmy-carters-windfall-profits-tax-mistake/ [https://perma.cc/6VPN-9QYK].

112 Amy Royden, *U.S. Climate Change Policy Under President Clinton: A Look Back*, 32 GOLDEN GATE U. L. REV. 415, 419–20 (2002).

industry.[113] During negotiations over Clinton's proposed budget, his carbon tax was replaced by an increase in the gasoline tax by 4.3 cents per gallon.[114] As part of his "Climate Action Plan," Clinton also proposed the adoption of new efficiency standards for buildings and household appliances to reduce CO_2 emissions.[115] However, once Republicans were in the majority in both houses of Congress following the 1995 midterm elections, it was very difficult for Clinton to get Congress to fund any of his Climate Action Plan initiatives.[116]

Barack Obama, in 2009, during his first term in office, managed to get the House of Representatives to pass the Waxman-Markey Bill, which was a "cap-and-trade" program[117] designed to decrease CO_2 and other greenhouse gas emissions from all "regulated entities," including, for example, power plants, factories, and refineries.[118] Obama's near success in getting Congress to directly regulate the fossil fuel industry greatly alarmed the fossil fuel industry,[119] and therefore it, together

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113 *Id.* at 420.

114 *Id.*

115 John Shanahan, *Clinton's "Voluntary" Global Warming Plan: Expensive, Ineffective, and Unnecessary*, HERITAGE FOUND. (Aug. 3, 1994), https://www.heritage.org/environment/report/clintons-voluntary-global-warming-plan-expensiveineffective-and-unnecessary#:~:text=The%20plan%20is%20a%20potpourri,or%20use%20of%20a%20product [https://perma.cc/SCT9-Y8MR].

116 Royden, *supra* note 112, at 421.

117 *Cap-and-Trade*, LEGAL INFO. INST. (July 2022), https://www.law.cornell.edu/wex/cap-and-trade#:~:text=Cap%2Dand%2Dtrade%20is%20a,fuel%20alternatives%20and%20energy%20efficiency [https://perma.cc/68ZQ-ZTXE] (explaining that such a program sets a "cap" on the total CO_2 emissions permitted for a designated group of entities, grants emission permits in alignment with the cap, and then permits entities within the group to "trade" their permits).

118 David Kreutzer et al., *The Economic Consequences of Waxman-Markey: An Analysis of the American Clean Energy and Security Act of 2009*, HERITAGE FOUND. (Aug. 6, 2009), https://www.heritage.org/environment/report/the-economic-consequences-waxman-markey-analysis-the-american-clean-energy-and [https://perma.cc/U596-YPHB]; Marianne Lavelle, *2016: Obama's Legacy Marked by Triumphs and Lost Opportunities*, INSIDE CLIMATE NEWS (Dec. 26, 2016) [hereinafter Lavelle 2], https://insideclimatenews.org/news/26122016/obama-climate-change-legacy-trump-policies/ [https://perma.cc/Z8PL-QNAW].

119 *See, e.g.*, Senator Sheldon Whitehouse, Time to Wake Up: Who Funds the Chamber?, (July 30, 2019), https://www.whitehouse.senate.gov/news/speeches/time-to-wake-up-who-funds-the-chamber [https://perma.cc/ST86-5BT9] ("In 2009, the [U.S. Chamber of Commerce, working on behalf of the fossil fuel industry] led the charge against the Waxman-Markey bill. For that legislation, it pulled out all the stops—haranguing members, more 'Vote Alerts' and 'How They Voted' scorecards, sending more messages of election doom if you dared to support Waxman-Markey.").

with electric utilities, spent over $500 million to successfully defeat this bill in the Senate.[120]

The fossil fuel industry then spent record sums on Republican candidates for the House of Representatives and Senate in the 2010 midterm elections, with the result that Obama lost his Democratic majority in the House of Representatives, and his democratic majority in the Senate shrank.[121] In the 2012 election, Obama was reelected President and the Democrats gained two seats in the Senate, but the Republican Party retained its majority in the House of Representatives.[122] Thereafter, Obama could not get the House of Representatives to adopt his climate change initiatives, so he issued a number of executive orders and initiated regulatory changes at relevant federal agencies.[123] These initiatives included, for example, a cut in CO_2 emissions from power plants by thirty percent compared to 2005 levels,[124] investment of ninety billion dollars in alternative energy technologies and projects,[125] and new efficiency standards for automobiles, medium-duty vehicles, and heavy-duty vehicles.[126] Unfortunately, as noted above, shortly following his inauguration, Donald Trump reversed all Obama's climate change accomplishments and withdrew the United States from the Paris Agreement.[127]

Almost immediately after his inauguration, Biden, on behalf of the United States, rejoined the Paris Agreement[128] and issued executive

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120 *See, e.g.*, Daniel J. Weiss, *Anatomy of a Senate Climate Bill Death*, CTR. FOR AM. PROGRESS (Oct. 12, 2010), https://www.americanprogress.org/article/anatomy-of-a-senate-climate-bill-death/ [https://perma.cc/KAM4-R5RH].

121 *Id.*

122 *See, e.g.*, Deirdre Walsh et al., *GOP Retains Grip on House*, CNN (Nov. 7, 2012, 10:35 PM), https://www.cnn.com/2012/11/07/politics/house-races/index.html [https://perma.cc/D6GT-2GL4]; WILLIAN A. GALSTON, GOVERNANCE STUD. AT BROOKINGS, THE 2012 ELECTION: WHAT HAPPENED, WHAT CHANGED, WHAT IT MEANS (Jan. 4, 2013), https://www.brookings.edu/wp-content/uploads/2016/06/04presidentialelection.pdf [https://perma.cc/77UE-4ZUT].

123 Lavelle 2, *supra* note 118.

124 *Id.*; *cf. Fact Sheet: Overview of the Clean Power Plan, Cutting Carbon Pollution from Power Plants*, ENV'T PROT. AGENCY [hereinafter *Fact Sheet*], https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html [https://perma.cc/JS7B-GYYC] (last visited Sept. 19, 2023) (revealing that, on August 3, 2015, the EPA issued the final rule for the Clean Power Plan, which actually sought to reduce CO_2 emissions from power plants by thirty-two percent below 2005 levels by 2030).

125 Lavelle 2, *supra* note 118.

126 *Id.*; *Fact Sheet*, *supra* note 124.

127 Lavelle 2, *supra* note 118; Popovich et al., *supra* note 103.

128 *Kerry Says US 'Proud to Be Back' in Paris Climate Agreement*, VOICE OF AM. (Jan. 25, 2021, 8:40 PM), https://www.voanews.com/usa/kerry-says-us-proud-be-back-paris-climate-agreement [https://perma.cc/MPA9-SSXF].

orders cancelling oil and gas leases on federal lands and waters and ordering the federal agencies to abolish any fossil fuel subsidies that they controlled.[129] Biden even submitted a budget that eliminated most legislative subsidies granted to the fossil fuel industry.[130] In March 2022, a federal court blocked Biden's executive order on the halting of oil and gas leases.[131] Then, to obtain Senator Joe Manchin's support for his landmark Inflation Reduction Act of 2022 (IRA) and secure its adoption by Congress, Biden essentially had to revoke his executive order on oil and gas leases on federal lands and waters.[132] Specifically, he had to require "the U.S. Department of the Interior to lease [two] million acres in federal lands onshore and [sixty] million acres offshore each year for oil and gas development (or whatever acreage the industry requests, whichever is smaller). These quotas must be met to allow federal leasing for onshore and offshore renewables development, respectively."[133] Biden's IRA provides an astounding approximately $370 billion for investments in alternative energy projects and technologies.[134]

Democratic Presidents Kennedy, Obama, and Biden advocated for the elimination or reduction of the very lucrative subsidies that the executive branch and Congress have provided to the fossil fuel industries for decades.[135] Kennedy proposed that one of the largest federal subsidies to the oil and gas industry—the oil depletion

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129 Ben Cahill, *Biden Makes Sweeping Changes to Oil and Gas Policy*, CTR. FOR STRATEGIC & INT'L STUD. (Jan. 28. 2021), https://www.csis.org/analysis/biden-makes-sweeping-changes-oil-and-gas-policy [https://perma.cc/F8LG-DW5Y].

130 *See, e.g.*, Susan Casey-Lefkowitz & Sujatha Bergen, *Biden Budget Eliminates Host of Fossil Fuel Subsidies*, NAT. RES. DEF. COUNCIL (June 1, 2021), https://www.nrdc.org/experts/sujatha-bergen/market-warping-oilgas-subsidies-way-out-biden-budget [https://perma.cc/R5EA-ZS3Z].

131 *See, e.g.*, Michelle Lewis, *Alaska Oil and Gas Lease Sale Is on Because Joe Manchin Insisted*, ELECTREK (Nov. 28, 2022, 1:45 PM), https://electrek.co/2022/11/28/alaska-oil-gas-lease-sale-joe-manchin/ [https://perma.cc/R5SL-F7U8].

132 Inflation Reduction Act, Pub. L. No. 117–169, 138 Stat. 1818 (2022).

133 Samantha Gross, *The Climate Bill's Oil and Gas Provisions Are a Worthwhile Tradeoff*, BROOKINGS (Aug. 4, 2022), https://www.brookings.edu/blog/planetpolicy/2022/08/04/the-climate-bills-oil-and-gas-provisions-are-a-worthwhile-tradeoff/ [https://perma.cc/TZ2X-6P8U].

134 *See, e.g.*, WHITE HOUSE, BUILDING A CLEAN ENERGY ECONOMY: A GUIDEBOOK TO THE INFLATION REDUCTION ACT'S INVESTMENTS IN CLEAN ENERGY AND CLIMATE ACTION 5 (2023) [hereinafter GUIDEBOOK], https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf [https://perma.cc/68HV-CSP8].

135 *See infra* text accompanying notes 136–48.

allowance—be eliminated or significantly reduced.[136] This subsidy "was an expense deduction for depletion of resources and was allowed as a reduction of taxable income,"[137] and it reduced oil and gas producers' taxes by up to 27.5%.[138] Kennedy's assassination ensured that his plan to eliminate or significantly reduce the oil depletion allowance was similarly dead.[139] Then, "[i]n 2009, the Obama Administration and the G20 nations proposed that they end 'inefficient' fossil fuel subsidies."[140] Obama was quoted as arguing that "[y]ou can keep subsidizing a fossil fuel that's been getting taxpayer dollars for a century, or you can place your bets on a clean-energy future."[141] When Biden was running for President in 2020, he promised to eliminate fossil fuel subsidies,[142] and one could consider favorable leases to oil and gas companies on federal lands and waters to be a subsidy that Biden, in fact, attempted to eliminate.[143] Unfortunately, Biden had to restore that subsidy to the fossil fuel industry to get the IRA enacted,[144] and the United States has made no progress in eliminating or reducing the subsidies that the executive branch and Congress provide to the fossil fuel industry.[145]

In summary, at present, fossil fuel companies can explore for, drill, refine, and sell their fossil fuel products free from any significant federal regulation, and there is no carbon tax or other limitation imposed on the CO_2 emissions attributable to the fossil fuel industry.[146] The industry has not been forced to pay the costs associated with global

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136 John Simkin, *JFK Theory: Texas Oil Men*, SPARTACUS EDUC. (Jan. 2022), https://spartacus-educational.com/JFKSinvestOil.htm [https://perma.cc/ET4P-MDRZ].

137 *Id.*

138 *Id.*

139 *Id.* A number of writers have even concluded that Texas oilmen, furious at President Kennedy's attempt to eliminate or significantly decrease the oil depletion allowance, were responsible for President Kennedy's assassination. *Id.*

140 *Fossil Fuel Subsidies Overview*, OIL CHANGE INT'L, http://priceofoil.org/fossil-fuel-subsidies/#:~:text=What%20Is%20a%20Fossil%20Fuel,price%20paid%20by%20energy%20consumers [https://perma.cc/F5E2-K6XD] (last visited Sept. 19, 2023).

141 Helene Cooper & Jonathan Weisman, *Obama Seeks to End Subsidies for Oil and Gas Companies*, N.Y. TIMES (Mar. 1, 2012), https://www.nytimes.com/2012/03/02/us/politics/obama-calls-for-an-end-to-subsidies-for-oil-and-gas-companies.html?searchResultPosition=1.

142 Jocelyn Timperley, *Why Fossil Fuel Subsidies Are So Hard to Kill*, NATURE (Oct. 20, 2021), https://www.nature.com/articles/d41586-021-02847-2 [https://perma.cc/HF99-DJ36].

143 *See supra* text accompanying notes 128–30.

144 *See supra* text accompanying notes 132–33.

145 Timperley, *supra* note 142.

146 *See supra* text accompanying notes 96–145.

warming and local air pollution that the industry imposes on society,[147] and the industry even continues to receive very lucrative subsidies from the executive branch and Congress.[148]

To be sure, Presidents Carter, Clinton, Obama, and Biden all pledged to invest heavily in the research and development of alternative energy sources. Carter's plan was estimated to total $142 billion,[149] Clinton's plan was estimated to total $16 billion,[150] Obama's plan was estimated to total $90 billion,[151] and Biden's plan was estimated to total $370 billion.[152] They all apparently embraced what could be described as the "trickle-over" theory: investments in alternative energy sources will lead to the development and commercialization of such sources, and then customers will finally embrace these alternative energy sources and abandon fossil fuels.[153] Perhaps the very large sums now available for alternative energy projects and technologies, pursuant to the IRA, will make all the difference, and the U.S. public will migrate to alternative energy sources in a relatively short amount of time. However, the trickle-over theory did not work for Carter, Clinton, or Obama. And, in the meantime, CO_2 and other greenhouse gas emissions

147 *See, e.g.*, Justin Gundlach & Sabin Center for Climate Change Law, *Can Fossil Fuel Companies Be Held Liable for Climate Change?*, COLUM. CLIMATE SCH. (Oct. 26, 2017), https://news.climate.columbia.edu/2017/10/26/can-fossil-fuel-companies-be-held-liable-for-climate-change/ [https://perma.cc/9578-2VDH].

148 *Sen. Whitehouse on Fossil Fuel Subsidies: "We Are Subsidizing the Danger*," U.S. SENATE COMM. ON THE BUDGET (May 3, 2023), https://www.budget.senate.gov/chairman/newsroom/press/sen-whitehouse-on-fossil-fuel-subsidies-we-are-subsidizing-the-danger-#:~:text=As%20we'll%20hear%20today,record%20%244%20trillion%20of%20income [https://perma.cc/FWV5-ZVRC]; *Fast Sheet—Fossil Fuel Subsidies: A Closer Look at Tax Breaks and Societal Costs (2019)*, ENV'T & ENERGY STUDY INST. (Jul. 29, 2019), https://www.eesi.org/papers/view/fact-sheet-fossil-fuel-subsidies-a-closer-look-at-tax-breaks-and-societal-costs [https://perma.cc/R3ND-2XKV].

149 Edward Walsh, *Carter Plan Cost: $142 Billion*, WASH. POST (July 17, 1979), https://www.washingtonpost.com/archive/politics/1979/07/17/carter-plan-cost-142-billion/7fae1b6b-14ff-41b5-8f63-3da2c9825a6c/ [https://perma.cc/CNH3-ZLJ8].

150 *The Clinton Presidency: Protecting Our Environment and Public Health*, CLINTON WHITE HOUSE, https://clintonwhitehouse5.archives.gov/WH/Accomplishments/eightyears-08.html [https://perma.cc/DVX5-FTZH] (last visited Sept. 19, 2023).

151 Lavelle 2, *supra* note 118, at 4.

152 GUIDEBOOK, *supra* note 134.

153 *See, e.g.*, Gross, *supra* note 133.

are rising in the United States and around the world,[154] and the last eight years have been the hottest years on record.[155]

III
FOSSIL FUEL INDUSTRY'S STRATEGY ON GLOBAL WARMING

Hearings held by the House Oversight Committee, in October 2021, revealed that the federal government knew the cause and disastrous effects of global warming and yet continued to promote the fossil fuel industry.[156] Furthermore, the hearings revealed that this disconnect was attributable to the fossil fuel industry pursuing a three-pronged strategy for maintaining its power and profits within the United States and the world.[157] The three prongs of this strategy are (1) the promotion of a concerted disinformation campaign questioning the existence and cause of global warming; (2) the "greenwashing" of the fossil fuel industry; and (3) the payment of billions of dollars for campaign contributions and lobbying efforts.[158] Greenwashing refers to claims or promises of investments in clean energy for the purpose of improving the speaker's reputation when the speaker knew that such investments would not meaningfully reduce greenhouse gas emissions, and the speaker continued to invest heavily in fossil fuel products and investments.[159] Each of these efforts is discussed further below.

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154 *See, e.g.*, *More Bad News for the Planet: Greenhouse Gas Levels Hit New Highs*, WORLD METEOROLOGICAL ORG. (Oct. 26, 2022), https://public.wmo.int/en/media/press-release/more-bad-news-planet-greenhouse-gas-levels-hit-new-highs#:~:text=The%20increase%20in%20carbon%20dioxide,2022%20over%20the%20whole%20globe [https://perma.cc/44AD-4JLK] ("The increase in carbon dioxide levels from 2020 to 2021 was larger than the average annual growth rate over the last decade. Measurements from WMO's Global Atmosphere Watch network stations show that these levels continues [sic] to rise in 2022 over the whole globe.").

155 *See, e.g.*, Josh Davis, *The Last Eight Years Have Been the Hottest on Record*, NAT. HIST. MUSEUM AT TRING (Jan. 14, 2022), https://www.nhm.ac.uk/discover/news/2022/january/last-eight-years-have-been-the-hottest-on-record.html [https://perma.cc/UM8J-C6FZ].

156 *See, e.g.*, Kevin Crowley & Ari Natter, *Congress Committee Says Documents Show Big Oil Greenwashing (2)*, BLOOMBERG L. (Sept. 15, 2022, 7:01 AM), https://news.bloomberglaw.com/in-house-counsel/congressional-committee-says-documents-show-big-oil-greenwashing [https://perma.cc/A4YA-TZYR]; *see also The Role of Fossil Fuel Subsidies in Preventing Action on the Climate Crisis: Hearing Before Subcomm. on Env't of the H. Comm. on Oversight & Reform*, 117th Cong. (2021) [hereinafter *Role of Fossil Fuels*], https://www.congress.gov/event/117th-congress/house-event/LC66072/text.

157 *See supra* text accompanying notes 95–148.

158 *See, e.g.*, Crowley & Natter, *supra* note 156; *Role of Fossil Fuels*, *supra* note 156.

159 *See, e.g.*, Crowley & Natter, *supra* note 156; Ben Lefebvre & Zack Colman, *House Oversight Committee Accuses Oil Companies of 'Lying' About Climate Actions*, POLITICO (Dec. 9, 2022, 11:25 AM), https://www.politico.com/news/2022/12/09/oversight-memo-oil

A. Disinformation Campaign

Overwhelming evidence supports the conclusion that, for decades, the fossil fuel industry has been engaged in a multibillion-dollar disinformation campaign to obscure the dangers of fossil fuels and global warming.[160] Furthermore, the fossil fuel industry has often obscured its orchestration of this campaign by working through other organizations such as the American Petroleum Institute (API), its main lobbying and trade association, and other right-wing organizations.[161]

Despite the fossil fuel industry's ardent campaign of denialism, however, by 1988 most climate scientists around the world agreed that global warming was occurring and was primarily caused by CO_2 emissions,[162] and, in that year, the IPCC was created to compile studies on global warming from scientists all over the world.[163] Furthermore, in that same year, Al Gore raised the issue of global warming in his 1988 presidential campaign,[164] and James Hansen testified before the Senate regarding his conclusion that anthropogenic global warming had begun.[165] Also, 1988 was one of the hottest and driest years on record, with many U.S. counties also suffering a severe drought and

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-companies-climate-impact-00073248 [https://perma.cc/YL6B-YDAW]; HENRY ENGLER ET AL., THOMSON REUTERS REGUL. INTEL. GRP., ESG UNDER STRAIN (Alexander Robson & Randall Mikkelsen eds., 2022), https://www.thomsonreuters.com/en/reports/esg-under-strain.html#:~:text=ESG%20under%20strain,-How%20to%20navigate&text=A%20nearly%20perfect%20storm%20of,governments%20under%20strain%20in%202022 [https://perma.cc/6YKV-8QW4] (last visited Sept. 19, 2023).

160 *See, e.g.*, *Fueling the Climate Crisis: Exposing Big Oil's Disinformation Campaign to Prevent Climate Action*, HOUSE COMM. ON OVERSIGHT & ACCOUNTABILITY DEMOCRATS (Oct. 22, 2021, 10:30 AM) [hereinafter *Fueling the Climate Crisis*], https://oversightdemocrats.house.gov/legislation/hearings/fueling-the-climate-crisis-exposing-big-oil-s-disinformation-campaign-to [https://perma.cc/WZJ5-T4TN]; Geoffrey Supran & Naomi Oreskes, *The Forgotten Oil Ads That Told Us Climate Change Was Nothing*, GUARDIAN (Nov. 18, 2021, 5:00 AM), https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing [https://perma.cc/V3T8-9GCM]; Jeffrey Pierre & Scott Neuman, *How Decades of Disinformation About Fossil Fuels Halted U.S. Climate Policy*, NAT'L PUB. RADIO (Oct. 27, 2021, 10:35 AM), https://www.npr.org/2021/10/27/1047583610/once-again-the-u-s-has-failed-to-take-sweeping-climate-action-heres-why [https://perma.cc/5TAD-6T2Z]; ORESKES & CONWAY, *supra* note 36, at 169–215.

161 *Fueling the Climate Crisis*, *supra* note 160.

162 ORESKES & CONWAY, *supra* note 36, at 180.

163 *Id.* at 13.

164 *See, e.g.*, Connie Koenenn, *The Politics of Pollution: In 1988, Sen. Al Gore Found That No One Wanted to Hear About the Environment. Now, He's Saying Voters—and the World—Can't Wait*, L.A. TIMES (Feb. 6, 1992, 12:00 AM), https://www.latimes.com/archives/la-xpm-1992-02-06-vw-1979-story.html [https://perma.cc/2UWG-3VEP].

165 ORESKES & CONWAY, *supra* note 36, at 184–85.

many crops being ruined as a result.[166] In sum, it seemed to many that they were already suffering the negative effects of global warming,[167] and, in response, the fossil fuel industry decided to significantly fortify its campaign of denialism by collaborating with scientists at the Marshall Institute (MI).

The MI was founded by Edward Teller, Frederick Seitz, and Robert Jastrow to provide scientific support for President Reagan's Strategic Defense Initiative (SDI).[168] Edward Teller had helped build the atomic bomb in World War II,[169] and he had personally pitched adoption of the SDI to President Reagan.[170] Frederick Seitz helped Teller to build the atomic bomb, and he later served as the President of the U.S. National Academy of Sciences.[171] At the time that Seitz joined the MI, he was chairman of the SDI Advisory Board.[172] Robert Jastrow was a prominent astrophysicist and popular author who had been director of the Goddard Institute for Space Studies within the National Aeronautical and Space Administration (NASA) for many years.[173] The fossil fuel companies did not initially fund the MI.[174] Rather, they contributed funds to the API and various right-wing organizations, which then funded the MI.[175] This permitted the fossil fuel companies to hide the fact that they were paying scientists to produce reports denying that CO_2 emissions are the main cause of global warming.[176]

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166 *Id.* at 183–84.

167 *Id.* at 184.

168 *Id.* at 186.

169 *Id.* at 50–52.

170 *Id.* at 50–51. Following World War II, Teller served on the President's Foreign Intelligence Advisory Board and advocated for a U.S. military buildup against the Soviet Union. *Id.* at 38.

171 *Id.* at 5.

172 *Id.* at 56.

173 *Id.* at 8.

174 Initially, the MI was funded by the Sarah Scaife Foundation and the John M. Olin Foundation, two well-known funders of conservative causes. *Id.* at 56. MI avoided receiving funding directly from fossil fuel companies until the mid-1990s, when fossil fuel companies such as Exxon Mobil began to directly fund it. *See, e.g.*, SETH SHULMAN ET AL., UNION OF CONCERNED SCIENTISTS, SMOKE, MIRRORS & HOT AIR: HOW EXXONMOBIL USES BIG TOBACCO'S TACTICS TO MANUFACTURE UNCERTAINTY ON CLIMATE SCIENCE (Kate Abend et al. eds., 2007) [hereinafter HOT AIR], https://www.ucsusa.org/sites/default/files/2019-09/exxon_report.pdf [https://perma.cc/S4RE-BXCP].

175 *See, e.g.*, HOT AIR, *supra* note 174.

176 *See, e.g.*, Senator Sheldon Whitehouse, Time to Wake Up: Dark Money and Climate Denial (Feb. 9, 2016), https://www.whitehouse.senate.gov/news/speeches/time-to-wake-up-dark-money-and-climate-denial [https://perma.cc/5RT3-QCR2] (discussing Jane Mayer's 2016 book DARK MONEY).

Soon, the original members of the MI asked William Nierenberg to join MI.[177] Nierenberg had just retired from his position as the director of the Scripps Institution of Oceanography.[178] The scientists at the MI also often closely worked with physicist Fred Singer. Singer became a leading figure in the development of Earth observation satellites and served as the first director of the National Weather Satellite Service and later as the chief scientist in the Department of Transportation in the Reagan Administration.[179]

Teller, Seitz, Jastrow, Nierenberg, and Singer were all physicists, staunch anti-Communists, free-market advocates, and Cold War heroes with high credibility and close ties to the U.S. government (and especially Republican politicians).[180] At least the last four were also close friends who had worked with each other at various institutes and agencies for decades.[181] For example, Nierenberg and Singer had worked together to dispute the threat of "acid rain,"[182] and Singer and Seitz had worked together to dispute the dangers of cigarette smoking.[183] Late in his life, Seitz admitted that R.J. Reynolds had hired him and other researchers, chosen by Seitz, to produce reports disputing the connection between cigarette smoking and negative health effects, so that it would be difficult for anyone to hold the tobacco industry liable for negative health effects.[184] Such reports were part of Singer and Seitz's "Tobacco Strategy."[185]

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177 ORESKES & CONWAY, *supra* note 36, at 56.

178 *Id.*

179 *Id.* at 5.

180 *Id.* at 213.

181 *Id.* at 56.

182 *Id.* at 86.

183 In 1979, R. J. Reynolds had hired Seitz to oversee a vast array of biomedical research projects at hospitals, major universities, and research institutes around the United States, all designed to counter the fact that cigarette smoking was dangerous to one's health (which R. J. Reynolds knew to be a fact when it hired Seitz). ORESKES & CONWAY, *supra* note 36, at 10. At one point, Seitz justified his work for R. J. Reynolds by stating that the company had been a very generous donor to his former teaching institution, the Rockefeller University. *Id.* at 26. Singer coauthored a major study contesting an Environmental Protection Agency report concluding that second-hand smoke was dangerous to people who inhaled it. *Id.* at 143–62. In 2006, U.S. District Judge Gladys Kessler found that the tobacco industry had violated the Racketeer Influenced and Corrupt Organizations (RICO) statute because it had "devised and executed a scheme" for lying to the American public about the dangers of cigarette smoking. *Id.* at 31–32.

184 Mark Hertsgaard, *While Washington Slept*, VANITY FAIR (Jan. 1, 2010), https://www.vanityfair.com/news/2006/05/warming200605 [https://perma.cc/WPV2-39N2].

185 *See, e.g.*, Robert Proctor, *Manufactured Ignorance*, 95 AM. SCIENTIST 424 (2010), https://www.americanscientist.org/article/manufactured-ignorance [https://perma.cc/R9E9-YMQ9].

In its early years, the MI not only defended the SDI but also advocated for the development of nuclear power in general and the buildup of the United States' nuclear arsenal in particular.[186] Furthermore, as part of that latter mission, it published reports concluding that the possibility of a "nuclear winter" (the human race freezing to death due to dust fallout from a nuclear conflict blocking the sun's rays) was negligible.[187] By the late 1980s, however, the Soviet Union was deteriorating, and the SDI and a buildup of the nuclear arsenal in the United States were no longer high priorities for the U.S. government.[188] This meant that the MI needed a new mission, and Seitz, Jastrow, Nierenberg, and Singer decided to treat "environmental alarmists" as the new enemy of the United States and thereby indirectly support the fossil fuel industry.[189]

Essentially, the MI followed Seitz and Singer's "Tobacco Strategy" to sow doubt about the existence and causes of global warming, and the MI employed all the same disinformation tools that Seitz and Singer had employed in their Tobacco Strategy.[190] These tools included, for example, the use of (1) fake experts, (2) logical fallacies, (3) impossible expectations, (4) cherry picking, and (5) conspiracy theories.[191] The physicists at the MI were the "fake experts." They were famous physicists,[192] so the public did not question their credentials, but they were not climate scientists.[193] Some of the logical fallacies that these scientists and their fossil fuel industry allies propagated included (1) arguing that because climate scientists do not know everything about global warming, they do not know anything about global warming and (2) arguing that because the world's climate has occasionally changed naturally in the past, it must simply be changing naturally once again.[194] Scientific certainty in any field is rare, and thus U.S. society takes precautions based on the "best science" available; yet, the fossil fuel companies as well as the MI scientists argued that

186 ORESKES & CONWAY, *supra* note 36, at 43.

187 *Id.* at 54.

188 *Id.* at 186.

189 *Id.*

190 *Id.*

191 *See, e.g.*, JOHN COOK ET AL., GEORGE MASON UNIV. CTR. FOR CLIMATE CHANGE COMMC'N, AMERICA MISLED: HOW THE FOSSIL FUEL INDUSTRY DELIBERATELY MISLED AMERICANS ABOUT CLIMATE CHANGE (2019), https://www.climatechangecommunication.org/wp-content/uploads/2023/09/America_Misled.pdf [https://perma.cc/XSZ3-YTY7].

192 ORESKES & CONWAY, *supra* note 36.

193 *See supra* text accompanying notes 167–79.

194 COOK ET AL., *supra* note 191.

society should not take any action to protect against global warming because scientists did not understand everything about global warming.[195] In other words, the MI scientists advocated that U.S. policy makers adopt "impossible expectations" with respect to global warming.[196] The dishonesty and depravity of the MI's climate change denialism is conveyed through the following three examples, which employ the strategies of "cherry picking" and "conspiracy theories."

To begin, in 1989 the MI scientists wrote and widely disseminated a book entitled *Global Warming: What Does the Science Tell Us?*[197] based only on the top half of "Figure 5" of James Hansen's study referred to earlier.[198] Again, like a good scientist should, Hansen had considered several different possible causes of global warming, and his Figure 5 demonstrated that the sun, CO_2, and volcanoes each played a role in global warming.[199] By "cherry picking" only the top half of Hansen's Figure 5, the MI disingenuously argued that global warming was caused solely by the sun.[200] Of course, Hansen and other climate scientists quickly pointed out the dishonesty of the MI's "sun only" theory, but they could not get mainstream media outlets to publish their comments.[201] In contrast, the mainstream media was more than happy to promote the MI's inaccurate "sun only" theory.[202] In fact, the MI's false "sun only" claim was enormously persuasive, and the MI scientists were elated over this fact.[203]

One of the most egregious aspects of the MI's global warming disinformation campaign was Frederick Singer's false claim that Roger Revelle, the "father of global warming," had changed his mind about global warming just prior to his death.[204] Singer's actions here could accurately be described as the "cherry picking" of Revelle's many comments on global warming throughout his life, but a fairer description of Singer's action in this case would be fraud.[205] On

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195 *Id.*

196 *Id.*

197 ORESKES & CONWAY, *supra* note 36, at 186 (citing ROBERT JASTROW, WILLIAM NIERENBERG & FREDERICK SEITZ, GLOBAL WARMING: WHAT DOES THE EVIDENCE TELL US?, (1989)).

198 ORESKES & CONWAY, *supra* note 36, at 186–90.

199 *Id.*

200 *Id.*

201 *Id.*

202 *Id.*

203 *Id.* at 190.

204 *Id.* at 190–97.

205 *Id.*

February 19, 1990, the eighty-one-year-old Revelle presented a paper in New Orleans entitled *What Can We Do About Climate Change?*[206] Following Revelle's presentation, Fred Singer approached Revelle and suggested that the two of them collaborate on a future article to be published in the *Washington Post* newspaper.[207]

At the time, Revelle certainly was aware of Singer's association with the MI[208] and the MI's "cherry picking" of James Hansen's Figure 5,[209] and, as the father of global warming,[210] Revelle was likely uninterested in publishing a paper with a climate change denier such as Singer. In any case, on Revelle's way back to La Jolla, California, from New Orleans, he suffered a massive heart attack, and he was transported directly from the airport to the hospital.[211] Revelle was in and out of the hospital until May 1990, and he was exceedingly weak thereafter.[212] At this time, his assistants limited each of his meetings to less than thirty minutes.[213] According to one of Revelle's assistants, during this period, Singer kept sending Revelle drafts of their "joint paper" for Revelle's review, and Revelle kept burying this draft under other materials on his desk.[214] When this assistant asked Revelle why he kept avoiding reviewing Singer's draft, he reportedly replied that "[s]ome people don't think Fred Singer is a very good scientist."[215]

Not to be discouraged by Revelle's avoidance behavior, in February 1991, Singer flew to La Jolla, where Revelle was the director of the Scripps Institution of Oceanography, and Singer and Revelle had a multihour meeting to review Singer's draft of their "joint paper" (which was already set in galleys).[216] During this meeting, Revelle corrected a misstatement of Singer's regarding the likelihood of global warming in the future.[217] Specifically, Singer's draft stated, "Assume what we regard as the most likely outcome: A modest average warming in the next century of less than one degree Celsius, well below the normal

206 *Id.* at 190.
207 *Id.* at 191.
208 *See supra* text accompanying notes 178–88.
209 *See supra* text accompanying notes 196–202.
210 *See supra* text accompanying notes 39–43.
211 ORESKES & CONWAY, *supra* note 36, at 191.
212 *Id.*
213 *Id.*
214 *Id.* at 192.
215 *Id.*
216 *Id.*
217 *Id.* at 193.

year to year variation."[218] The IPCC had just stated that global warming in the next century was likely to be significant,[219] and Revelle "crossed out 'less than one degree' and wrote in the margin next to it: 'one to three degrees.'"[220]

Following his meeting with Revelle, Singer dropped his reference in this sentence to 1°C but also failed to incorporate Revelle's notation of "one to three degrees."[221] In the final version of this paper, ultimately published in a journal associated with the Washington Cosmos Club, this sentence read, "Assume what we regard as the most likely outcome: A modest average warming in the next century well below the normal year to year variation."[222] Revelle then died of a fatal heart attack in July 1991. Revelle had not, in fact, changed his mind about global warming,[223] but this sentence appeared to suggest that he had, and, for a number of years thereafter, Revelle's colleagues, graduate assistants, employees, and friends publicized Singer's failure to incorporate Revelle's suggested change in this article.[224] Following Revelle's death, Singer and the MI widely disseminated the Cosmos Club journal article,[225] and this article was used by climate change deniers to discredit then-Senator Al Gore's new book, *Earth in the Balance*, as Gore had studied under Revelle during his undergraduate days at Harvard University, and Gore considered Revelle to be a mentor.[226]

The final example of the tactics used in the climate change disinformation campaign concerns Chapter 8 of the IPCC's Second Assessment published in 1995 and 1996.[227] This chapter was entitled *Detection of Climate Change and Attribution of Causes*, and the lead author of this chapter was Benjamin Santer,[228] who at the time was working with the Program for Climate Model Diagnosis and Intercomparison at the Lawrence Livermore National Laboratory.[229] At the time that the IPCC's Second Assessment was being compiled,

218 *Id.*
219 *Id.*
220 *Id.*
221 *Id.*
222 *Id.*
223 *Id.* at 197.
224 *Id.* at 195–97.
225 *Id.* at 194–96.
226 *Id.* at 194–95.
227 *Id.* at 200, 205.
228 *Id.* at 200.
229 *Id.* at 198.

the existence of global warming was generally accepted, but attributing global warming to one or more particular cause(s) was a difficult task.[230] Santer had worked on a "fingerprinting" method of parsing out the various contributors to global warming,[231] so he was a perfect lead author for Chapter 8.

Tim Barnett of the Scripps Institution of Oceanography asked Santer to serve as the lead author of Chapter 8 in the spring of 1994, after other chapters of the IPCC's Second Assessment were already underway.[232] Pursuant to IPCC rules, Santer, like the lead authors of the other Second Assessment chapters, was required to present a draft of his chapter to all the authors of the Second Assessment in Madrid, Spain, during the IPCC plenary meeting, which commenced on November 27, 1995.[233] Prior to the meeting, Santer had strenuously argued to his fellow Chapter 8 authors that they needed to include a section detailing the uncertainties of their "models and observations," and a six-page summary of such uncertainties was, in fact, included in his draft of Chapter 8.[234] Also, due to his late start on Chapter 8, Santer had not received government comments on his chapter prior to the Madrid meeting, so he could not include his responses to such comments at that meeting; he was provided with such government comments during the Madrid meeting itself.[235] Following the Madrid meeting, Santer had to amend his Chapter 8 to address the government comments that he had received in Madrid, address the comments made by other authors during the meeting in Madrid, and delete a summary statement (not the section on "uncertainties" noted above) at the end of his chapter. His Chapter 8 had included a summary statement at both the beginning and end.[236] The other chapters in the IPCC's Second Assessment included a summary statement only at the beginning, and therefore, the IPCC Chairman, Britain's Sir John Houghton, had instructed Santer to delete the duplicative summary statement at the end of Chapter 8.[237]

Singer launched an attack on Santer's Chapter 8 in February 1996, four months before the official publication of the IPCC's Working

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230 *Id.* at 200.
231 *Id.* at 198–201.
232 *Id.* at 200–01.
233 *Id.* at 202.
234 *Id.* at 201, 208.
235 *Id.* at 202.
236 *Id.* at 205.
237 *Id.*

Group I Report on its Second Assessment.[238] To begin with, Singer noted that the Summary for Policymakers in the Working Group I Report stated, inaccurately and dramatically, that global warming is "the greatest global challenge facing mankind."[239] No such sentence appears anywhere in Santer's Chapter 8 or the entire Working Group I Report,[240] and the IPCC intentionally used especially conservative language in describing its conclusions.[241] With his first objection, Singer had simply created a "straw man" that he could then attack.[242]

Next, Singer complained that the Summary for Policymakers in the Working Group I Report had ignored satellite data showing "no warming at all, but actually a slight cooling."[243] Accordingly, Singer concluded, all the climate change models relied upon by the Chapter 8 authors, and which demonstrated warming, were inaccurate.[244] Tom Wigley, the director of the Climatic Research Unit at the University of East Anglia, England, and Santer's PhD thesis advisor,[245] responded to Singer's complaints,[246] and regarding this particular complaint, Wigley pointed out that there were indeed some differences in measurements made by satellites and measurements made by "'radiosondes'—instruments on balloons, with radios attached to transmit the results."[247] At the same time, he noted, climate scientists would not expect the measurements made by these two different kinds of instruments to be the same, especially given that the measurements were taken at different places around the earth and at different times, and furthermore these instruments measure "somewhat different things."[248]

Singer's third complaint was that Santer included in Chapter 8 his own "fingerprinting studies" demonstrating that increasing CO_2 emissions caused global warming, even though the IPCC rules required the inclusion of only peer-reviewed studies, and Santer's studies had not been peer-reviewed.[249] Wigley pointed out that this claim was

238 *Id.*
239 *Id.* at 206.
240 *Id.*
241 *Id.* at 204–05.
242 *Id.* at 206–07.
243 *Id.* at 205.
244 *Id.*
245 *Id.* at 198.
246 *Id.* at 206.
247 *Id.*
248 *Id.*
249 *Id.* at 205.

inaccurate for two reasons. First, IPCC rules permit the inclusion of non-peer-reviewed studies to incorporate in an Assessment the most recent work available, so long as those studies were accessible to the reviewers.[250] Second, Santer's studies had, in fact, been peer-reviewed.[251]

Finally, Singer claimed that Chapter 8 should have included "'an authoritative U.S. government report' that had found the twenty-first-century warming might be as little as 0.5°C, making global warming a nonproblem."[252] Singer did not provide the citation for this report, and therefore, Wigley did not respond to this claim of Singer's.[253]

In response to Wigley's explanations, Singer simply provided the citation for the U.S. government report to which he had referred.[254] At this point, one might think that the furor that Singer had created regarding Santer's Chapter 8 would die down, but this would be wrong. Apparently, as Chapter 8 demonstrated that global warming was caused by increasing CO_2 emissions, the MI scientists and other climate change deniers decided to keep attacking it, no matter the falsity or absurdity of their claims. In May of 1996, Santer and Wigley presented Chapter 8 at a briefing in the Rayburn House Office Building on Capitol Hill.[255] Two fossil fuel industry representatives attended this meeting and challenged the conclusion in Santer's Chapter 8 that increasing CO_2 emissions caused global warming on the ground that Santer had "secretly alter[ed] the IPCC report, suppress[ed] dissent by other scientists, and eliminat[ed] references to scientific uncertainties."[256] These two industry representatives were William O'Keefe of the API and Donald Pearlman, a lobbyist for the fossil fuel industry and a registered foreign agent for several oil-producing nations.[257]

Santer explained to O'Keefe, Pearlman, and the assembled crowd that he had not improperly altered his Chapter 8 draft presented in Madrid; rather, he had been required to alter his draft Chapter 8 presented in Madrid in response to government comments as well as

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250 *Id.* at 206.
251 *Id.*
252 *Id.* at 205.
253 *Id.* at 205–06.
254 *Id.* at 207.
255 *Id.*
256 *Id.*
257 *Id.*

comments made by fellow authors at the Madrid conference.[258] Of course, Santer also had not suppressed "dissent by other scientists" nor eliminated the six-page summary of scientific uncertainties, which remained a part of his Chapter 8.[259] At about the same time that Santer and Wigley testified before the U.S. Congress, the Global Climate Coalition (a group opposed to reducing greenhouse gas emissions)[260] disseminated a report to various reporters, members of Congress, and scientists. This report repeated the false claims of Singer, O'Keeffe, and Pearlman and was titled *The IPCC: Institutionalized Scientific Cleansing*.[261] Yet, these critics of Santer's Chapter 8 did not appear interested in Santer's explanations or whether their allegations were even true.[262] Their only goal seemed to be destruction of the credibility of Chapter 8.[263]

Finally, Fred Seitz at the MI repeated the false allegations made by Singer, O'Keefe, Pearlman, and the Global Climate Coalition and accused Santer of fraud in a letter published by *The Wall Street Journal* on June 12, 1996.[264] In his letter, Seitz stated, "In my more than 60 years as a member of the American scientific community, including my services as president of the National Academy of Sciences and the American Physical Society, I have never witnessed a more disturbing corruption of the peer-review process than the events that led to this IPCC report."[265] Santer immediately wrote a letter to *The Wall Street Journal* refuting Seitz's charges and explaining exactly why and when he had made changes to the Chapter 8 draft that he had presented in Madrid, and forty other IPCC lead authors signed Santer's letter to *The Wall Street Journal*.[266] Initially, *The Wall Street Journal* refused to publish Santer's response to Seitz's letter at all, but after three requests by Santer to publish his letter, it finally agreed to do so.[267] But then, it published only a heavily edited version of Santer's letter and omitted

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258 *Id.*

259 *Id.*

260 *See, e.g.*, *Global Climate Coalition (GCC)*, DESMOG, https://www.desmog.com/global-climate-coalition/ [https://perma.cc/A6CE-KBCB?type=image] (last visited Sept. 19, 2023); Andrew C. Revkin, *Industry Ignored Its Scientists on Climate*, N.Y. TIMES (Apr. 23, 2009), https://www.nytimes.com/2009/04/24/science/earth/24deny.html.

261 ORESKES & CONWAY, *supra* note 36, at 207.

262 *Id.*

263 *Id.*

264 *Id.* at 208.

265 *Id.*

266 *Id.*

267 *Id.*

all forty cosigners.[268] The debate in *The Wall Street Journal* between the MI scientists and their fossil fuel allies, on the one hand, and Santer, the IPCC, and climate scientists, on the other hand, regarding whether Santer had followed proper procedures in drafting his Chapter 8 continued for some time.[269] And, in this debate, *The Wall Street Journal* seemed to always distort or diminish the comments of Santer, the IPCC, and climate scientists.[270]

In essence, the MI, the Global Climate Coalition, and the fossil fuel company representatives were all suggesting that Santer and his climate scientist allies had engaged in a conspiracy to thwart mainstream scientists' views (i.e., that there was no proof that CO_2 emissions caused global warming) from being reported in Chapter 8 of the IPCC's Second Assessment. As mentioned above, alleging that a "conspiracy" is being perpetrated is common in a disinformation campaign.[271] Of course, the facts were exactly the opposite of the conspiracy that Singer had alleged. Santer had not interfered with the objective IPCC review process; he had followed that process to the letter.[272] Rather, it was Singer and his allies who had interfered with that process and attempted to substitute their own conclusions for Santer's in the IPCC's Second Assessment.[273]

Sadly, the fossil fuel industry has engaged in a disinformation campaign on global warming during the last few decades, and that campaign has successfully halted progress on countering global warming. The campaign is further documented in numerous other media, including, for example, reports of the House of Representatives' Committee on Oversight and Reform;[274] chapter 6 in the book, *Merchants of Doubt*, by Naomi Oreskes and Erik M. Conway;[275] the article, *America Misled*, by John Cook et al.;[276] the movie, *The Campaign Against the Climate*, by Danish filmmaker Mads Ellesoe;[277] and a tape of an Enron executive admitting that Enron and other fossil

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268 *Id.*

269 *Id.* at 209–10.

270 *See id.*

271 COOK ET AL., *supra* note 191.

272 ORESKES & CONWAY, *supra* note 36, at 205–15.

273 *Id.* at 210.

274 *See, e.g.*, *Role of Fossil Fuels*, *supra* note 156.

275 ORESKES & CONWAY, *supra* note 36.

276 COOK ET AL., *supra* note 191.

277 *See* THE CAMPAIGN AGAINST THE CLIMATE (Denmarks Radio 2020).

fuel companies have engaged in such a campaign.[278] Even more sadly, the fossil fuel industry continues conducting such a disinformation campaign today.[279]

B. Greenwashing

As stated above, another prong of the fossil fuel industry's strategy on global warming is greenwashing,[280] which, again, refers to claims or promises of investments in clean energy for the purpose of improving the speaker's reputation when the speaker was aware that such investments would not meaningfully reduce greenhouse gas emissions and the speaker continued to invest heavily in fossil fuel products and projects.[281] The Committee likewise studied the subject of greenwashing at length and issued its report on the same on December 9, 2022.[282] The Committee focused on the largest entities, including Exxon (sometimes referred to as Exxon Mobil), Chevron, Shell, and BP, which together obtained almost $100 billion in profits during the second and third quarters of 2022 alone.[283] The Committee also studied documents of the API, which again is the main lobbying and trade association for the fossil fuel industry.[284] The Committee's study concluded that, although Shell and BP were much more sincere in their efforts to transition to green energy than Chevron, Exxon, and

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278 *See, e.g.*, Alex Thomson, *Revealed: ExxonMobil's Lobbying War on Climate Change Legislation*, CHANNEL 4 NEWS (June 30, 2021), https://www.channel4.com/news/revealed-exxonmobils-lobbying-war-on-climate-change-legislation [https://perma.cc/J9AJ-8XHU]. The recording can be heard at https://www.youtube.com/watch?v=5v1Yg6XejyE [https://perma.cc/EJ8W-JKKY].

279 *See, e.g.*, Kristoffer Tigue & Bob Berwyn, *Climate Disinformation Campaigns Threaten COP27 Progress, a New Report Concludes*, INSIDE CLIMATE NEWS (Nov. 15, 2022), https://insideclimatenews.org/todaysclimate/climate-disinformation-campaigns-threaten-cop27-progress-a-new-report-concludes/?gclid=Cj0KCQiAz9ieBhCIARIsACB0oGKRlkoPLR67hiOR2bFct-SebTdXIZLm3JIU7SCoTyhZdcxgNY9gWeYaAhh7EALw_wcB [https://perma.cc/UA24-FR7B].

280 *See supra* text accompanying notes 157–58.

281 *See, e.g.*, Crowley & Natter, *supra* note 156; Lefebvre & Colman, *supra* note 159; ENGLER ET AL., *supra* note 159.

282 *See, e.g.*, Catherine Clifford, *Democratic Lawmakers Accuse Big Oil Companies of 'Greenwashing,'* CNBC (Dec. 9, 2022, 5:41 PM), https://www.cnbc.com/2022/12/09/democratic-lawmakers-accuse-big-oil-of-greenwashing.html [https://perma.cc/LZ7R-KSN3]; Lefebvre & Colman, *supra* note 159.

283 Clifford, *supra* note 282.

284 *Id.*

other fossil fuel companies, all these companies heavily engage in greenwashing.[285]

Some of the greenwashing tactics used by the companies include (1) flashy advertising campaigns falsely suggesting that the company is heavily invested in green energy projects; (2) misleading statements regarding the company's current or future green energy investments; (3) accounting tricks; (4) claims that the company is using green technology that has not yet been proven or is not yet available for commercial use (primarily these claims involve various forms of carbon capture technology); and (5) suggestions that natural gas is a clean energy source to which the company has moved or plans to move when the burning of natural gas emits significant amounts of CO_2.[286] The Committee provided numerous vignettes of fossil fuel companies using such tactics.[287]

For example, the Committee noted that Chevron spent $100 million on an oil and gas industry clean-energy initiative through 2022, which was welcome.[288] However, the Committee concluded that this investment was mere greenwashing because this $100 million investment in green energy constitutes only two percent of Chevron's $5 billion annual investment in oil and gas projects in the Permian Basin of Texas alone.[289] Moreover, the Committee contrasted Chevron's $100 million investment in green energy projects with comments by company officials, made in internal Chevron documents, that Chevron and Exxon spend far less on green energy projects than

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285 *See, e.g.*, Crowley & Natter, *supra* note 156; Clifford, *supra* note 282; Memorandum from Chairwoman Carolyn B. Maloney and Chairman Ro Khanna of the House Comm. on Oversight and Reform to Members of the Committee regarding the Investigation of Fossil Fuel Industry Disinformation 5, 11 (Dec. 9, 2022) [hereinafter Disinformation Memo], https://oversightdemocrats.house.gov/sites/democrats.oversight.house.gov/files/2022-12-09.COR_Supplemental_Memo-Fossil_Fuel_Industry_Disinformation.pdf [https://perma.cc/ER2B-459A]; Lefebvre & Colman, *supra* note 159.

286 *See, e.g.*, Disinformation Memo, *supra* note 285, at 5, 15, 20–23; Crowley & Natter, *supra* note 156; Clifford, *supra* note 282; GEOFFREY SUPRAN, ALGORITHMIC TRANSPARENCY INST., THREE SHADES OF GREEN(WASHING) 3 (2022), https://es.greenpeace.org/es/wp-content/uploads/sites/3/2022/09/ThreeShadesofGreenWashing_compr.pdf [https://perma.cc/YEP7-N8MT] (revealing that two-thirds of oil and gas companies' social media posts project "a 'Green Innovation' narrative sheen on their 'Business-as-usual' operations, which are given less air time. This ratio [3-to-1] of 'green-to-dirty' in each industry's public communications . . . misrepresents their contemporary commitments to decarbonization, implying that at least some of their social media content constitutes greenwashing.").

287 Disinformation Memo, *supra* note 285 *passim*; SUPRAN, *supra* note 286.

288 *See, e.g.*, Lefebvre & Colman, *supra* note 159.

289 *Id.*

other fossil fuel companies. These documents revealed that Chevron, unlike some of its competitors, does not plan to move away from fossil fuels.[290] Similarly, the Committee indicated that Shell and BP advertised that they were moving their operations to wind, solar, and other renewable energy sources, but they actually had not yet made significant investments in those energy sources.[291]

A third example involves BP embracing natural gas as a green fuel.[292] One company document acknowledges that methane (the chemical name for natural gas) plays a large role in global warming, while another company document advocates that BP should advertise its production and sale of natural gas and claim that it conserves energy by doing so.[293] As stated above, natural gas is not a clean or renewable fuel source.[294] Bob Stout, then head of BP's U.S. Regulatory Affairs, even went so far as to caution BP executives and employees not to describe natural gas as a "bridge fuel," as BP might instead wish to treat natural gas as a "destination fuel."[295]

The Committee discusses several instances of Exxon's greenwashing.[296] One such example involved Exxon's announcement that it would invest $17 billion in carbon capture technology through 2027.[297] The Committee considered this to be greenwashing because, to date, carbon capture is unworkable; it simply has not "worked at scale in the oil, gas, and power sector."[298] Some environmentalists similarly consider Exxon's investment in algae biofuel to constitute greenwashing. This is because the technology is not yet proven, and Exxon's investment in this technology is relatively minor compared to its continuing enormous investments in oil and gas.[299] As indicated above, Exxon, like the other companies, has made statements supporting the Paris Agreement in general terms.[300] In an internal

290 *Id.*

291 *Id.*

292 *Id.*

293 *Id.*

294 *See, e.g.*, *Is Natural Gas a Clean Source of Energy?*, INSIGHT, https://www.prysmiangroup.com/en/insight/innovation/is-natural-gas-a-clean-source-of-energy [https://perma.cc/9MY6-TWBH] (last visited Sept. 19, 2023).

295 Lefebvre & Colman, *supra* note 159.

296 *Id.*

297 *Id.*

298 *Id.*

299 *See, e.g.*, Carly Nairn, *Playing the Long Game: ExxonMobil Gambles on Algae Biofuel*, MONGABAY (July 6, 2021), https://news.mongabay.com/2021/07/playing-the-long-game-exxonmobil-gambles-on-algae-biofuel/ [https://perma.cc/SD6R-BDSL].

300 Clifford, *supra* note 282; Crowley & Natter, *supra* note 156.

Exxon document, however, an executive warned CEO Darren Woods in 2019 that Exxon should be careful not to publicly support the Paris Agreement as Exxon could then be considered to endorse the Paris Agreement's specific carbon emissions and temperature goals.[301] An Exxon executive was even secretly recorded stating that, although Exxon publicly claims to be tackling global warming, those claims are really just a publicity stunt and privately, Exxon fights initiatives to lower greenhouse gas emissions, when he was being interviewed by a Greenpeace employee who had pretended to be a headhunter for another fossil fuel company.[302]

In essence, the fossil fuel industry is at a point in its response to global warming that it is talking the talk, but not walking the walk. The fact that the industry is engaging in greenwashing today is perhaps best demonstrated by the Committee's discovery that the API plays two diametrically opposed roles for its fossil fuel company members: (1) producing public statements supporting programs reducing CO_2 emissions; and (2) privately working to defeat any such program.[303] As an example of the API's latter role, the Committee referred to a September 24, 2020, message that the API sent "to all Capitol Hill Republican offices" criticizing "California Gov. Gavin Newson's plan to ban all new internal combustion engine vehicle sales in the state by 2035—a move that caused significant ripples across the U.S. vehicle sector given the Golden State's sheer size."[304]

C. Campaign Contributions and Lobbying

Again, the third prong of the fossil fuel industry's global warming strategy is the expenditure of enormous funds on lobbying efforts and campaign contributions made to U.S. congressional, presidential, and other executive branch candidates.[305] Here, "lobbying" refers to "any attempt by individuals or private interest groups to influence the decisions of government."[306]

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301 Hiroko Tabuchi, *Oil Executives Privately Contradicted Public Statements on Climate, Files Show*, N.Y. TIMES (Sept. 14, 2022), https://www.nytimes.com/2022/09/14/climate/oil-industry-documents-disinformation.html.

302 *See, e.g.*, Thomson, *supra* note 278.

303 Lefebvre & Colman, *supra* note 159.

304 *Id.*

305 *See supra* text accompanying notes 157.

306 *Lobbying*, BRITANNICA (Aug. 25, 2023), https://www.britannica.com/topic/lobbying [https://perma.cc/FL6U-BASS].

Lobbying expenses and campaign contributions are a matter of public record.[307] Table 1 lists the lobbying and campaign contributions made by the energy/natural resources sector as a whole during recent years,[308] and a large majority of funds in each of these totals is attributable to the oil and gas, natural gas, and coal mining industries.[309] For example, in 2020, a campaign year, the total amount spent on campaign contributions alone by the energy/natural resources sector was $221.1 million, and the oil and gas, natural gas, and coal mining industries contributed $168.2 million, or seventy-six percent of that total.[310] Similarly, in 2018, also a campaign year, the total amount spent on campaign contributions alone by the energy/natural resources sector was $145.2 million, and the oil and gas, natural gas, and coal mining industries contributed $101.2 million, or seventy percent of that total.[311]

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307 Federal election campaign law (52 U.S.C. § 30101 et seq.), Federal Election Commission reporting regulations (11 C.F.R. § 104), and the Lobbying Disclosure Act of 1995 (2 U.S.C. § 1601 et seq.) require that lobbyists and politicians disclose most lobbying expenditures and campaign contributions. *See, e.g.*, *Lobbyist Bundling Disclosure*, FED. ELECTION COMM., https://www.fec.gov/help-candidates-and-committees/lobbyist-bundling-disclosure/ [https://perma.cc/M42Q-5UGB] (last visited Sept. 19, 2023); *Our Vision and Mission: Inform, Empower & Advocate*, OPENSECRETS, https://www.opensecrets.org/about [https://perma.cc/VV6Y-BCSG] (last visited Sept. 19, 2023) ("OpenSecrets is the nation's premier research group tracking money in U.S. politics and its effect on elections and public policy.").

308 *Energy/Natural Resources: Long-Term Contribution Trends*, OPENSECRETS [hereinafter OPENSECRETS 1], https://www.opensecrets.org/industries/totals.php?cycle=2022&ind=E [https://perma.cc/S7SW-TSEK] (last visited Sept. 19, 2023).

309 *Id.* To ascertain the contribution amount for individual industries within the energy/natural resources sector, choose the specific industry (e.g., "Oil & Gas") from the "Industries in this Sector:" drop-down list.

310 *Id.*

311 *Id.*

Table 1. *Lobbying and Campaign Contributions Paid by the Energy/Natural Resources Sector (Including Fossil Fuel Industries)*

Year	Contributions (U.S. $ Millions)
2010	232,475,652
2011	187,126,813*
2012	280,342,904
2013	170,395,925*
2014	251,600,967
2015	154,469,532*
2016	266,983,293
2017	147,789,920*
2018	250,837,518
2019	149,312,359*
2020	297,803,541

* No campaign contributions are recorded for these years, as they are noncampaign years.[312]

Obviously, the U.S. fossil fuel industry's expenditures on lobbying and campaign contributions are huge, and there is no question that the industry invests in politicians with a record of voting with the industry and against the environment.[313] Joe Manchin, democratic senator and chair of the Senate Energy and Natural Resources Committee, received the highest contribution ($740,859) during 2021–2022.[314] Other top recipients during the same period were Republicans Kevin McCarthy ($512,506), August Pfluger ($479,421), James Lankford ($418,415),

312 *Id.*

313 Matthew H. Goldberg et al., *Oil and Gas Companies Invest in Legislators That Vote Against the Environment*, 117 PROC. NAT'L ACAD. SCIS. 5111 (2020), https://www.pnas.org/doi/10.1073/pnas.1922175117 [https://perma.cc/6VT3-W3QE].

314 *Oil & Gas: Summary*, OPENSECRETS [hereinafter OPENSECRETS 2], https://www.opensecrets.org/industries/indus.php?ind=e01 [https://perma.cc/LJ45-U4VB] (last visited Sept. 19, 2023).

and Lisa Murkowski ($385,752).[315] As stated above, the Republican Party is the natural ally of the fossil fuel industry, so it is unsurprising that Republican candidates and Republican lawmakers receive the majority of the fossil fuel industry's campaign and lobbying funds.[316]

The fossil fuel industry spends so much money on lobbying and campaign contributions because these expenditures clearly work to ensure that its interests—including its continued receipt of enormous federal subsidies—are protected.[317] One study conducted by the National Academy of Sciences demonstrated, in connection with the 2016 federal elections,

> [f]or every additional 10% of congressional votes against the environment in 2014, a legislator would receive an additional $5,400 in campaign contributions from oil and gas companies in 2016 ($b = -0.54$, SE = 0.12, $P < 0.001$; 95% CI [−0.77, −0.31]). This is an especially strong relationship considering that many elected officials vote against environmental policies nearly 100% of the time, thereby compounding the cycle of antienvironmentalism and increasing rewards in the form of contributions.[318]

As mentioned above, during President Obama's first term, the fossil fuel and electric utility industries spent more than $500 million to prevent the Senate from enacting Obama's Waxman-Murphy Bill, which was designed to decrease greenhouse gas emissions and counter global warming.[319] Furthermore, the fossil fuel industry invested heavily in Republican candidates during the 2010 midterm elections, reversed President Obama's democratic majority in the House of

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315 *Id.* It should be noted that more than 3,500 politicians across forty-nine states have committed to reject campaign contributions from the fossil fuel industry; yet records reveal that many of them thereafter have continued to accept such contributions. *Oil & Gas: Money to Congress*, OPENSECRETS, https://www.opensecrets.org/industries/summary.php?ind=E01&cycle=2022&recipdetail=S&mem=Y [https://perma.cc/N3HJ-S55Y] (last visited Sept. 19, 2023); *Pledge Signers in Congress*, NO FOSSIL FUEL MONEY, https://nofossilfuelmoney.org/congressional-signers/ [https://perma.cc/546E-KFA4] (last visited Sept. 19, 2023). For example, Democratic Senator Kirsten Gillibrand signed this pledge, but she then accepted at least $11,725 in campaign contributions from fossil fuel companies thereafter. *Id.*

316 OPENSECRETS 2, supra note 314; *Lobbying Spending of Oil & Gas Companies in the United States During Election Cycles from 1990 to 2022, by Receiving Political Party*, STATISTA (Aug. 25, 2023), https://www.statista.com/statistics/788056/us-oil-and-gas-lobbying-spend-by-party/ [https://perma.cc/L8VW-X3V5].

317 *See, e.g.*, *Fossil Fuel Funding to Congress: Industry Influence in the U.S.*, OIL CHANGE INT'L [hereinafter *Fossil Fuel Funding*], https://priceofoil.org/fossil-fuel-industry-influence-in-the-u-s/ [https://perma.cc/3WS6-4EJ4] (last visited Sept. 19, 2023) ("Big Oil gets an 11,900% return on every dollar it spends on Congress.").

318 Goldberg et al., *supra* note 313.

319 *See supra* text accompanying notes 117–20.

Representatives, and significantly diminished his democratic majority in the Senate.[320] As a result, Obama was unable to get Congress to enact any significant climate change legislation during his presidency.[321]

Perversely, the fossil fuel industry can afford to pay such enormous lobbying costs and campaign contributions in large part because the federal and state governments provide the industry with such lucrative annual subsidies.[322] In the 2015–2016 period, annual cash and in-kind subsidies granted to the industry by the federal and state governments were estimated to total $37.1 billion, but this figure is probably a low estimate of these subsidies today.[323] The most recent reports from Oil Change International, a public-interest nonprofit organization, indicate that this figure today is $41.8 billion dollars.[324] Arguably, the U.S. military's annual expenditure of approximately $81 billion securing oil distribution channels around the world constitutes an additional annual subsidy to the fossil fuel industry.[325] And the International Monetary Fund (IMF) has estimated that, in 2017 alone, when the costs imposed on society by the fossil fuel industry are included, the federal and state governments in the United States provided an additional $676.6 billion in subsidies to the fossil fuel industry.[326] The total of all these annual subsidies to the fossil fuel industry is $799.4 billion, which is more than the United States' defense budget and ten times what the United States spends on education.[327]

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320 *See supra* text accompanying notes 121–22.

321 *See supra* text accompanying notes 123–26.

322 *See infra* text accompanying notes 322–27.

323 Wright, *supra* note 88, at 238–40 nn.360–62 (and authorities cited there) ($37.1 billion figure is the total of $14.7 billion in federal producer subsidies, $5.8 billion in state producer subsidies, $14.5 billion in consumer subsidies, and $2.1 billion in overseas development funds, as illustrated in Figure 8).

324 *Fossil Fuel Funding*, *supra* note 317.

325 Tom DiChristopher, *U.S. Spends $81 Billion a Year to Protect Global Oil Supplies, Report Estimates*, CNBC (Sept. 21, 2018, 10:34 AM), https://www.cnbc.com/2018/09/21/us-spends-81-billion-a-year-to-protect-oil-supplies-report-estimates.html [https://perma.cc/87V7-E7AQ] (discussing the conclusions of comprehensive study published by Securing America's Future Energy (SAFE)); *see also The Military Cost of Defending Global Oil Supplies*, SAFE (Sept. 20, 2018), https://secureenergy.org/military-cost-defending-global-oil-supplies/ [https://perma.cc/6Q82-XRZH]. The full study conducted by SAFE can be found at http://secureenergy.org/wp-content/uploads/2020/03/Military-Cost-of-Defending-the-Global-Oil-Supply.-Sep.-18.-2018.pdf [https://perma.cc/2YHZ-54SF].

326 Wright, *supra* note 88, at 234 (including Figure 6).

327 James Ellsmoor, *United States Spend Ten Times More on Fossil Fuel Subsidies than Education*, FORBES (June 15, 2019, 4:03 PM), https://www.forbes.com/sites/jamesellsmoor

Even if one considers only the $37.1 billion annual figure for federal and state cash or in-kind subsidies provided to the industry, one can see how the industry can easily allocate just 0.7%–0.8% of that amount ($250 million–$300 million) for lobbying expenditures and campaign contributions each year to further the industry's interests, including the continuation of these very lucrative subsidies. Numerous economists and environmentalists have forcefully argued that these subsidies harm our economy, environment, and physical health and should be abolished,[328] but democratic politicians, including most recently, democratic Presidents Obama and Biden, have not made any progress in this regard.[329] The absurdity of the situation was summarized in May 2019 by U.N. Secretary-General António Guterres: "What we are doing is using taxpayers' money—which means our money—to boost hurricanes, to spread droughts, to melt glaciers, to bleach corals. In one [phrase]: to destroy the world."[330] The United States's democratic system may be the best political system in the world, but one serious flaw of the system is that a wealthy and powerful industry, such as the fossil fuel industry, can corrupt it.[331]

/2019/06/15/united-states-spend-ten-times-more-on-fossil-fuel-subsidies-than-education/?sh=746987bd4473 [https://perma.cc/9DHE-HQJ5].

328 *See, e.g.*, Nghia-Piotr Trong Le et al., *IMF Energy Subsidies Template*, INT'L MONETARY FUND (Mar. 2019), https://www.imf.org/-/media/Files/Topics/Environment/energy-subsidies/fuel-subsidies-template.ashx (enter "U.S." and year desired); DAVID COADY ET AL., INT'L MONETARY FUND, GLOBAL FOSSIL FUEL SUBSIDIES REMAIN LARGE: AN UPDATE BASED ON COUNTRY-LEVEL ESTIMATES 7–8 (May 2, 2019), https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509; Johannes Urpelainen & Elisha George, *Reforming Global Fossil Fuel Subsidies: How the United States Can Restart International Cooperation*, BROOKINGS (July 14, 2021), https://www.brookings.edu/research/reforming-global-fossil-fuel-subsidies-how-the-united-states-can-restart-international-cooperation/ [https://perma.cc/CYS2-DW7E] (stating, among other things, that "[t]hese subsidies increase the use of fossil fuels, which causes a range of adverse environmental and health impacts").

329 *See supra* text accompanying notes 117–23 and 128–45.

330 Damian Carrington, *Just 10% of Fossil Fuel Subsidy Cash 'Could Pay for Green Transition,'* GUARDIAN (Aug. 1, 2019, 4:20 AM), https://www.theguardian.com/environment/2019/aug/01/fossil-fuel-subsidy-cash-pay-green-energy-transition [https://perma.cc/3KQL-XH8X].

331 *See, e.g.*, SUSAN ROSE-ACKERMAN & BONNIE J. PALIFKA, *Democracy: Corruption, Connections, and Money in Politics*, *in* CORRUPTION AND GOVERNMENT: CAUSES, CONSEQUENCES, AND REFORM 341 (1st ed. 2016), https://www.cambridge.org/core/books/abs/corruption-and-government/democracy-corruption-connections-and-money-in-politics/1A5AAF982C535214DB0D03295AC675D7 [https://perma.cc/8U5L-U3QQ] ("Advanced democracies remain vulnerable to the excessive impact of private wealth on public choices in ways that undermine democracy, even if outright bribes are uncommon."). "Public choice theory" is often used to explain how public decisions in a democratic society may be

It is against the background of escalating greenhouse gases and global temperatures, government officials' active promotion of the fossil fuel industry, and the fossil fuel industry's denial of responsibility for global warming that twenty-one youths (mostly minors), in the case of *Juliana v. United States*, sued the U.S. government, President Obama, and numerous federal agencies.[332] Among other things, they claimed that the defendants were violating their Fifth Amendment rights to life, liberty, and property.[333] The following section of this Article describes both the U.S. district court's opinion and the Ninth Circuit Court of Appeals' opinion in this case.

IV
COURT OPINIONS IN *JULIANA V. UNITED STATES*

A. U.S. District Court Opinion in Juliana v. United States

On August 12, 2015, twenty-one young people represented by Our Children's Trust, the environmental organization Earth Guardians, and climate scientist Dr. James Hansen (representing future generations) filed suit against the U.S. government, President Obama, and numerous federal agencies.[334] At the time that they filed their complaint, most of

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corrupted by the influence of money and accordingly may not reflect the will of the people. *See, e.g.*, Peter P. Swires, *Markets, Self-Regulation, and Government Enforcement in the Protection of Personal Information*, *in Chapter 1: Theory of Markets and Privacy*, NAT'L TELECOMMS. & INFO. ADMIN., https://www.ntia.gov/page/chapter-1-theory-markets-and-privacy [https://perma.cc/33WN-562X] (last visited Sept. 19, 2023) ("[G]overnment officials may not faithfully follow the public good. Instead, as emphasized by public choice theory, officials may be influenced by powerful interest groups . . . ."). Public choice theory "amounts, in essence, to transplanting the general analytical framework of economics into political science." GORDON TULLOCK ET AL., GOVERNMENT FAILURE: A PRIMER IN PUBLIC CHOICE 5 (2002).

332 *Juliana I*, 217 F. Supp. 3d 1224, 1233 (D. Or. 2016); Megan Raymond, *A Hypothetical Win for Juliana Plaintiffs: Ensuring Victory Is More than Symbolic*, 46 ECOLOGY L.Q. 705, 709 (2019). These federal agencies included, for example, the Council on Environmental Quality, the Office of Management and Budget, the Office of Science and Technology Policy, the Department of Energy, the Department of the Interior, the Department of Transportation, the Department of Agriculture, the Department of Defense, the Department of State, and the Environmental Protection Agency. *Juliana I*, 217 F. Supp. 3d at 1234.

333 First Amended Complaint, *supra* note 8.

334 *Juliana I*, 217 F. Supp. 3d at 1233; Raymond, *supra* note 332. These federal agencies included, for example, the Council on Environmental Quality, the Office of Management and Budget, the Office of Science and Technology Policy, the Department of Energy, the Department of the Interior, the Department of Transportation, the Department of Agriculture, the Department of Defense, the Department of State, and the Environmental Protection Agency. *Juliana I*, 217 F. Supp. 3d at 1234.

these young people were minors.[335]

In the U.S. District Court for the District of Oregon, the plaintiffs pleaded four main causes of action.[336] First, the plaintiffs alleged that the defendants' actions and omissions, which significantly contributed to global warming, violated the plaintiffs' substantive due process rights to life, liberty, and property, as guaranteed by the Fifth Amendment to the U.S. Constitution.[337] The plaintiffs contended that global warming, at a minimum, is causing severe droughts, floods, wildfires, and storms, destroying numerous animals' habitats, and damaging the atmosphere to the point that the earth may become incapable of sustaining human life.[338] Second, the plaintiffs alleged that the defendants had violated and were violating their right to equal protection in violation of the Fifth Amendment because people who currently are young and humans who will be born in the future (together referred to by the plaintiffs as "posterity") are disproportionately harmed by the defendants' violations of their substantive due process rights.[339] Third, the plaintiffs alleged that the defendants' actions and omissions violated the plaintiffs' implicit liberty protected by the Ninth Amendment "to be sustained by our country's vital natural systems, including our climate system."[340] Finally, plaintiffs alleged that the defendants' actions and omissions violated the defendants' obligation to hold natural resources owned by the federal government, including, for example, the country's life-sustaining climate system, in public trust for the use and enjoyment of by future generations.[341] As only the plaintiffs' first cause of action is relevant for this Article, the plaintiffs' second, third, and fourth causes of action will not be discussed further here.

The plaintiffs requested declaratory relief confirming the defendants' violations of the plaintiffs' rights and injunctive relief.[342] Specifically, with respect to injunctive relief, the plaintiffs requested a declaration preventing defendants "from violating those rights and directing defendants to develop a plan to reduce CO_2 emissions."[343]

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335 *Juliana I*, 217 F. Supp. 3d at 1233.

336 First Amended Complaint, *supra* note 8, ¶¶ 277–310.

337 *Id.* ¶¶ 277–89.

338 *Id.*

339 *Id.* ¶¶ 290–301.

340 *Id.* ¶¶ 302–06.

341 *Id.* ¶¶ 307–10.

342 *Juliana I*, 217 F. Supp. 3d at 1233.

343 *Id.*

Soon after the plaintiffs filed their complaint, the defendants moved to dismiss the suit for failure to state a claim.[344] With respect to the plaintiffs' Fifth Amendment claim, the defendants argued that they cannot be liable for their affirmative actions promoting fossil fuels because there is no fundamental constitutional right to a climate system free of greenhouse gases.[345] In addition, they claimed that they cannot be liable for their failure to prevent others from producing or consuming fossil fuels, both because there is no such fundamental constitutional right, and governments, generally, are not liable for their inaction in any case.[346]

In response, the district court noted that the plaintiffs did not claim a right to be free from all air pollution or be free from any and all greenhouse gases, but rather, claimed a right to "a climate system capable of sustaining human life."[347] Given this, the court held that the Fifth Amendment does, in fact, guarantee this right, as otherwise, the plaintiffs could not enjoy their rights to life, liberty, and property, which the Fifth Amendment explicitly guarantees.[348] Accordingly, the court held that the plaintiffs had alleged sufficient facts to establish a cause of action against defendants for defendants' promotion of the fossil fuel industry.[349]

In addition, the district court held that the plaintiffs pleaded sufficient facts to hold defendants liable for defendants' failure to prevent others from producing or consuming fossil fuels based on a "danger creation theory."[350] The court clarified that, in the U.S. Court of Appeals for the Ninth Circuit, "a plaintiff challenging government inaction on a danger creation theory must first show [that] the 'state actor create[d] or exposed[d] an individual to a danger which he or she would not have otherwise faced."[351] Then, the court went on to point out that this standard for government liability for inaction is certainly

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344 *Id.*

345 *Id.*

346 *Id.* at 1248.

347 *Id.* at 1250.

348 *Id.*

349 *Id.* Similarly, in another climate change suit, a Montana state trial court on, August 14, 2023, struck down various state laws as violating the youth plaintiffs' "right to a clean and healthful environment" under Article II, § 3 of the Montana Constitution. Held v. Montana, No. CDV-2020-307 (1st Dist. Ct. Mont., Aug. 14, 2023), https://westernlaw.org/wp-content/uploads/2023/08/2023.08.14-Held-v.-Montana-victory-order.pdf [https://perma.cc/4NVV-XJZT].

350 *Juliana I,* 217 F. Supp. 3d at 1251 (citing Kennedy v. City of Ridgefield, 439 F.3d 1055, 1061 (9th Cir. 2006)).

351 *Id.*

met in this case as the plaintiffs pleaded that defendants actively promoted the production and consumption of fossil fuels while being fully aware that doing so endangered plaintiffs' lives, livelihoods, and property.[352]

At the time that the defendants moved to dismiss the suit for failure to state a claim, they also moved to dismiss the lawsuit for lack of subject matter jurisdiction on two additional grounds—the case presents nonjusticiable political questions, and the plaintiffs lack standing to sue.[353] With respect to defendants' argument that the case raises nonjusticiable political questions, the district court first pointed out that, in order to dismiss the case on political question grounds, the court must find that "one of the *Baker* considerations is 'inextricable' from the case."[354] In this regard, the court was referring to the six factors that a court should consider to determine whether a case presents a nonjusticiable political question, according to the U.S. Supreme Court in the case of *Baker v. Carr*.[355] The U.S. district court in *Juliana* then separately addressed each of the six *Baker* factors and found that none of the factors was applicable.[356] Accordingly, the court held that it could not dismiss the case based on the political question doctrine.[357]

Then, in the *Juliana* case, the defendants argued that the plaintiffs lacked standing. The district court conceded that "[a] threshold question in every federal case is . . . whether at least one plaintiff has standing."[358] Furthermore, it agreed that "[t]o demonstrate standing, a plaintiff must show (1) she suffered an injury in fact that is concrete, particularized, and actual or imminent; (2) the injury is fairly traceable to the defendant's challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision."[359] The court then addressed each of the defendants' arguments regarding these three criteria for standing.[360]

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352 *Id.* at 1251–53.

353 *Id.* at 1235.

354 *Id.* at 1236 (citing Baker v. Carr, 369 U.S. 186, 217 (1962)).

355 Baker v. Carr, 369 U.S. 186, 217 (1962).

356 *Juliana I*, 217 F. Supp. 3d at 1242.

357 *Id.*

358 *Id.* (citing Thomas v. Mundell, 572 F.3d 756, 760 (9th Cir. 2009)).

359 *Id.* (citing Lujan v. Defs. of Wildlife, 504 U.S. 555, 560 (1992)).

360 *Id.* at 1242–48.

To begin with, the defendants contended that the plaintiffs' alleged injuries were "nonjusticiable generalized grievances"[361] rather than particularized injuries "because they are caused by climate change, which broadly affects the entire planet (and all people on it) in some way."[362] However, the district court noted, a "generalized grievance" exists only "when the harm at issue is 'not only widely shared, but is also of an abstract and indefinite nature—for example, harm to the common concern for obedience to the law,'"[363] whereas each of the plaintiffs in this case had suffered a particularized harm.[364] For example, one plaintiff alleged that algae, caused by global warming, pollutes the water that she drinks, and droughts, caused by global warming, kill the wild salmon that she would normally eat.[365] Another plaintiff alleged that unusually high temperatures caused by global warming damaged his family's hazelnut orchard, upon which his family relies for food and income.[366] A third plaintiff alleged that Hurricane Katrina, the severity of which was caused by global warming, flooded and destroyed his family's home in New Orleans.[367] Further, the court found that each of the plaintiffs' alleged harm "is ongoing and likely to continue in the future."[368] Accordingly, the district court held that the plaintiffs had "satisfied the first [criterion] of the standing test."[369]

Next, defendants argued that the plaintiffs did not adequately allege causation[370] and relied on the Ninth Circuit case of *Washington Environmental Council v. Bellon*.[371] The *Bellon* court had held that the plaintiffs there had not proven the causation element because the five oil refinery defendants in that case "were responsible for just under six percent of total greenhouse emissions produced in the state of Washington,"[372] and "the effect of those emissions on global climate

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361 *Id.* at 1243.

362 *Id.*

363 *Id.* at 1243 (citing Novak v. United States, 795 F. 3d 1012, 1018 (9th Cir. 2015)).

364 *Id.* at 1243–44.

365 *Id.* at 1242, 1247.

366 *Id.* at 1242.

367 *Id.* at 1243.

368 *Id.* at 1244.

369 *Id.*

370 *Id.*

371 Wash. Env't Council v. Bellon, 732 F. 3d 1131 (9th Cir. 2013).

372 *Juliana I*, 217 F. Supp. 3d at 1245 (citing Wash. Env't Council v. Bellon, 732 F. 3d 1131, 1114 (9th Cir. 2013)).

change was 'scientifically indiscernible . . . .'"[373] The district court in *Juliana* distinguished *Bellon* from the *Juliana* case in two respects.[374] First, the court pointed out, the *Bellon* court was ruling on a motion for summary judgment, whereas the *Juliana* court was ruling on a motion to dismiss.[375] Accordingly, the *Juliana* court noted, the *Bellon* court had to determine whether the plaintiffs had produced sufficient evidence to demonstrate the causation criterion, whereas the *Juliana* court, in ruling on the defendants' motion to dismiss, was obligated to accept as true the plaintiffs' allegations that the defendants had caused at least some of their injuries.[376] Second, the *Juliana* court noted that the emissions at issue in *Juliana* constitute a "significant share of global emissions,"[377] unlike the negligible emissions at issue in *Bellon*.[378] With respect to both defendants' alleged affirmative actions and defendants' failure to regulate third parties' actions, the *Juliana* court held that the plaintiffs had sufficiently alleged a causal link between defendants' conduct and the plaintiffs' injuries.[379]

Finally, the defendants contended that the plaintiffs could not satisfy the redressability criterion for standing because many entities contribute to global warming, and an injunction issued against any one entity, even if it was a major emitter of emissions, would not guarantee a reduction in greenhouse gas emissions worldwide.[380] The district court in *Juliana*, in turn, pointed out that

> redressability does not require certainty, it requires only a substantial likelihood that the Court could provide meaningful relief. Second, the possibility that some other individual or entity might later cause the same injury does not defeat standing—the question is whether the injury caused by the defendant can be redressed.[381]

Construing the complaint in plaintiffs' favor[382] and given the fact that the United States is one of the largest emitters of greenhouse gases (contributing approximately twenty-five percent of the total volume of greenhouse gases in the atmosphere),[383] the district court ruled that the

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373 *Id.* at 1245.
374 *Id.*
375 *Id.*
376 *Id.*
377 *Id.*
378 *Id.* at 1245–46.
379 *Id.*
380 *Id.* at 1247.
381 *Id.*
382 *Id.* at 1248.
383 *Id.* at 1247.

plaintiffs had sufficiently alleged that there was a substantial likelihood that an order instructing the U.S. government to implement a plan to reduce greenhouse gas emissions in the United States would provide meaningful relief to the plaintiffs.[384] Hence, it held that, with respect to the requested injunctive relief, the plaintiffs had met the redressability criterion, in addition to the injury and causation criteria, for standing.[385] The court likewise implied that the plaintiffs had met the redressability criterion for their requested declaratory judgment.[386] Accordingly, it denied the defendants' motion to dismiss for lack of standing.[387]

However, two years after first denying the defendants' motions to dismiss for failure to state a claim and lack of standing, the U.S. District Court for the District of Oregon reluctantly certified the case for interlocutory appeal to the Ninth Circuit on the issues decided to date, and stayed the case pending the Ninth Circuit's decision on those issues.[388] The Ninth Circuit accepted the defendants' request for interlocutory appeal,[389] and then it addressed only the defendants' motion to dismiss for lack of standing.[390]

B. Ninth Circuit Opinion in Juliana v. United States

The Ninth Circuit, in the *Juliana* case, held that the district court erred in denying the defendants' motion to dismiss for lack of standing.[391] More specifically, it held that the plaintiffs had pleaded sufficient facts to establish the first two criteria for standing—particularized injury and causation.[392] However, it also held that the plaintiffs had not pleaded sufficient facts to establish the third criterion—redressability—for either of its requested remedies, an injunction and a declaratory judgment.[393]

With respect to plaintiffs' request for an injunction ordering the defendants to implement "some" plan to reduce greenhouse gas emissions in the United States, the Ninth Circuit held that an Article III

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384 *Id.* at 1247–48.

385 *Id.*

386 *Id.* at 1248.

387 *Id.*

388 *Juliana II*, 947 F.3d 1159, 1166 (9th Cir. 2020).

389 *Id.*

390 *Id.* at 1175.

391 *Id.*

392 *Id.* at 1168–69.

393 *Id.* at 1169–75.

federal court does not possess the power to issue such an injunction.[394] The court explained that, in its opinion, this is the case because a federal court's issuance and monitoring of such an injunction would require the court to decide various policy issues whose resolution is entrusted to the two political branches of government—the U.S. executive branch and Congress.[395]

The Ninth Circuit's holding that the plaintiffs do not possess standing to obtain an injunction is infuriating for a number of reasons. To begin with, a court would not need to decide any policy issues to determine whether the executive branch has implemented "some" plan to reduce greenhouse gases. Furthermore, an order merely instructing the government to implement "some" plan to reduce greenhouse gas emissions would not require a federal court to decide any policy issues or instruct the government on how to reduce greenhouse gas emissions. Rather, such an injunction would be based solely on two unassailable facts: (1) global warming is caused by increasing greenhouse gas emissions;[396] and (2) the United States is the second largest emitter of greenhouse gases in the world.[397]

Second, it is absurd for the Ninth Circuit to tell the plaintiffs that they must return to the executive branch and Congress to obtain a remedy for their injuries. This is because the executive branch is the

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394 *Id.* at 1171. An Article III court is a federal court with "full judicial power. Judicial power is the authority to be the final decider in questions of Constitutional law, all questions of federal law and to hear claims at the core of habeas corpus issues." *Court Role and Structure*, U.S. CTS., https://www.uscourts.gov/about-federal-courts/court-role-and-structure [https://perma.cc/A854-LSAP] (last accessed September 28, 2023). An Article I court is a federal court that does not have full judicial power. *Id.* The following are Article I courts: the U.S. Court of Appeals for Veterans Claims, the U.S. Court of Appeals for the Armed Forces, and the U.S. Tax Court. *Id.*

395 *Juliana II*, 947 F.3d at 1171–75.

396 *See supra* text accompanying notes 35–71.

397 *See, e.g.*, Josh Gabbatiss, *The Carbon Brief Profile: United States*, CARBON BRIEF (Apr. 22, 2021), https://www.carbonbrief.org/the-carbon-brief-profile-united-states/ [https://perma.cc/4955-8YFA]. Plaintiffs' petition in the U.S. district court for leave to file a second amended complaint was granted on June 1, 2023. Kelsey Cascadia Rose Juliana, et al., Plaintiffs v. United States of America, et al., Defendants, Opinion and Order, June 1, 2023, Civ. No. 6:15-cv-01517-AA, https://static1.squarespace.com/static/571d109b04426270152febe0/t/6478e362509ac610c4e9890c/1685644132156/Doc+540+Opinion+and+Order+Granting+Second+Amended+Complaint.pdf. In that second amended complaint, they amended their request for injunctive relief to simply request that the district court "issue an appropriate injunction restraining Defendants from carrying out policies, practices, and affirmative actions that render the national energy system unconstitutional in a manner that harms Plaintiffs." Proposed Second Amended Complaint, *supra* note 17, at 144. This, by itself, may cure any deficiency in the plaintiffs' initial request for injunctive relief in the *Juliana* case.

defendant in this case, the plaintiffs have not obtained relief from those two branches of government because the fossil fuel industry has corrupted those branches,[398] and most of the plaintiffs were minors and could not vote in any case.[399] For these reasons, the holding of the Ninth Circuit regarding plaintiffs' request for injunctive relief appears to be incorrect, and this subject may be addressed in a subsequent paper.

Turning to the Ninth Circuit's holding regarding the plaintiffs' request for a declaratory judgment, it should be noted at the outset that the court's analysis on this point is truncated and unclear. The defendants did not address the plaintiffs' request for a declaratory judgment in either their opening brief or their rebuttal brief, which they filed in connection with their interlocutory appeal to the Ninth Circuit.[400] Furthermore, the Ninth Circuit gave short shrift to the plaintiffs' declaratory judgment request, stating that "[t]he crux of the plaintiffs' requested remedy is an injunction requiring the government not only to cease permitting, authorizing, and subsidizing fossil fuel use, but also to prepare a plan subject to judicial approval to draw down harmful emissions."[401] The court further stated that

> the plaintiffs first seek a declaration that the government is violating the Constitution. But that relief alone is not substantially likely to mitigate the plaintiffs' asserted concrete injuries. A declaration, although undoubtedly likely to benefit the plaintiffs psychologically, is unlikely by itself to remediate their alleged injuries absent further court action . . . . 'By the mere bringing of his suit, every plaintiff demonstrates his belief that a favorable judgment will make him happier. But although a suitor may derive great comfort and joy from the fact that the United States Treasury is not cheated, that a wrongdoer gets his just deserts (sic), or that the Nation's laws are faithfully enforced, that psychic satisfaction is not an acceptable Article III remedy because it does not redress a cognizable Article III injury.' . . . (Citations omitted.)[402]

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398 *See supra* text accompanying notes 157 and 304–30.

399 First Amended Complaint, *supra* note 8, ¶¶ 16–90; *Who Can and Cannot Vote*, *supra* note 26.

400 Transcript of Oral Argument on Plaintiffs' Petition for Leave to File Second Amended Complaint at 13, Juliana v. United States, Case No. 6:15-cv-01517-AA (D. Or. June 25, 2021), https://static1.squarespace.com/static/571d109b04426270152febe0/t/616f4e71a2a6445ed3308fc7/1634684529407/2021.06.25+Oral+Argument+on+Motion+to+Amend+Transcript+w+Index.pdf [https://perma.cc/V6LZ-JA4E].

401 *Juliana II*, 947 F.3d 1159, 1170 (9th Cir. 2020).

402 *Id.*

It is difficult to imagine a more insulting, incorrect legal statement than the Ninth Circuit's holding that the plaintiffs do not possess standing to obtain a declaratory judgment because, even if the defendants are violating the plaintiffs' constitutional rights, a statement to that effect by a federal court would provide mere "psychic satisfaction" to the plaintiffs. Furthermore, this holding implies that a declaratory judgment, by itself, is never a sufficient remedy for a plaintiff. This holding is incorrect.[403] In particular, this holding ignores numerous cases that state or imply that a declaratory judgment to the effect that the defendant is violating the plaintiff's constitutional rights, at the very least, carries with it an implied mirror-image injunction to the defendant to stop violating the plaintiff's U.S. constitutional rights in the proscribed manner.[404] The remainder of this Article argues that the Ninth Circuit's holding that the plaintiffs in the *Juliana* case do not possess standing to obtain a declaratory judgment is incorrect.

V
THE NINTH CIRCUIT'S HOLDING THAT THE PLAINTIFFS DO NOT POSSESS STANDING TO OBTAIN A DECLARATORY JUDGMENT IS INCORRECT

In this section, I argue that the Ninth Circuit's opinion that the plaintiffs do not have standing to obtain a declaratory judgment is incorrect. Specifically, I argue that this opinion of the Ninth Circuit is inconsistent with (1) well-established, general principles of law; (2) the founding fathers' intent; (3) the most recent U.S. Supreme Court decisions on standing and declaratory judgments; and (4) several U.S. Supreme Court and lower federal court cases granting a declaratory judgment clarifying the constitutional rights of one or more minor(s). These arguments are discussed further below.

A. General Principles

Most of the twenty-one plaintiffs in *Juliana* were minors when they sued the U.S. government. Minors possess most constitutional rights,[405] including substantive due process rights under the Fifth and

403 *See infra* text accompanying notes 463–600.

404 *See infra* text accompanying notes 464–599.

405 The U.S. Constitution does not limit to adults the rights delineated therein. U.S. CONST. The Fifth Amendment to the U.S. Constitution, for example, states that "[n]o *person* shall be . . . deprived of life, liberty, or property, without due process of law." U.S. CONST. amend. V (emphasis added).

Fourteenth Amendments to the Constitution,[406] even though minors are not entitled to vote in elections.[407] Such fundamental constitutional rights are not subject to the outcome of any election.[408] It is particularly the role of the judiciary—as opposed to the executive and legislative branches of the U.S. government—to declare constitutional violations and safeguard individuals' constitutional rights.[409] And, of course, it is the federal judiciary, and most especially the U.S. Supreme Court, that possesses the ultimate authority to interpret the Constitution.[410]

Moreover, it is long-settled law that violation of a right of the plaintiff automatically imports damage,[411] and a court must have a means of providing redress for any violation of a right of the plaintiff.[412] In order to effectuate these principles, "federal courts retain broad authority 'to fashion practical remedies when confronted with complex and intractable constitutional violations,'"[413] and a court has the power to modify the relief requested by the plaintiff as appropriate.[414] Finally, in a constitutional case, the first and most important task of the court is to declare the rights of the plaintiff,[415] and a plaintiff is not required to solve all roadblocks to full realization of his or her rights at one time.[416]

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406 *In re* Gault, 387 U.S. 1 (1967).

407 *Who Can and Cannot Vote*, *supra* note 26.

408 W. Va. State Bd. of Educ. v. Barnette, 319 U.S. 624, 638 (1943).

409 *See, e.g.*, THE FEDERALIST NO. 78, at 442 (Alexander Hamilton) (Fall River Press 2021) [hereinafter FEDERALIST 78] ("The interpretation of the laws is the proper and peculiar province of the courts. A constitution is, in fact, and must be, regarded by the judges, as a fundamental law. It therefore belongs to them to ascertain its meaning . . . .").

410 Marbury v. Madison, 5 U.S. 137, 177 (1803) ("It is emphatically the province and duty of the judicial department to say what the law is."); *see also The Court and Constitutional Interpretation*, SUP. CT. OF THE U.S., https://www.supremecourt.gov/about/constitutional.aspx [https://perma.cc/BM42-BWHG] (last visited Sept. 19, 2023).

411 Uzuegbunam v. Preczewski, 141 S. Ct. 792, 799–802 (2021) (citing numerous cases for this point).

412 *Id.*

413 *Juliana I*, 217 F. Supp. 3d 1224, 1241–42 (D. Or. 2016).

414 *See, e.g.*, *Juliana II*, 947 F.3d 1159, 1189 (9th Cir. 2020) (Staton, J., dissenting) ("Courts routinely grant plaintiffs less than the full gamut of requested relief . . . .").

415 *See* Brown v. Bd. of Educ. (*Brown I*), 347 U.S. 483 (1954); *see also* Brown v. Bd. of Educ.(*Brown II*), 349 U.S. 294 (1955) (demonstrating that the U.S. Supreme Court, in *Brown I*, merely declared that segregated public schools violated the plaintiffs' equal protection rights under the Fourteenth Amendment, and, in *Brown II*, it commenced discussion of what injunctive relief could be granted to the plaintiffs).

416 *Brown I*, 347 U.S. 483; *Brown II*, 349 U.S. 294.

B. The Founding Fathers Could Not Have Intended for the Federal Courts to Be Powerless to Issue a Declaratory Judgment Stating that the U.S. Government Is Violating Plaintiffs' U.S. Constitutional Rights

Again, in the *Juliana* opinion, the Ninth Circuit held that, even if the U.S. executive branch is violating the plaintiffs' Fifth and Fourteenth Amendment rights, the federal judiciary does not even possess the power to issue a declaratory judgment to that effect, because such a judgment would provide the plaintiffs with mere "psychic satisfaction."[417] Furthermore, the Ninth Circuit stated that, even if the political "branches . . . have abdicated their responsibility to remediate the problem[, that] does not confer on Article III courts[ ] . . . the ability to step into their shoes."[418]

The Ninth Circuit's first statement contravenes the above-stated legal principles that violation of a right automatically imports damage to a plaintiff,[419] and a court must have a means of providing redress for violation of a plaintiff's right.[420] With respect to the Ninth Circuit's second statement, the court misconstrued plaintiffs' requested relief. The plaintiffs in *Juliana* are not asking the federal courts to exercise the legislative and executive powers delegated by the Constitution to Congress and the executive branch. Rather, the plaintiffs are requesting that the federal courts exercise their own judicial judgment and declare that the U.S. executive branch is violating plaintiffs' Fifth and Fourteenth Amendment constitutional rights.

In essence, the Ninth Circuit's opinion adopts the position of the U.S. executive branch that it possesses the right to destroy the country.[421] The founding fathers simply could not have intended this result—that the federal judiciary be so powerless that it cannot even issue a declaratory judgment stating that the executive branch threatens the country's perpetuity and thereby is violating the plaintiffs' Fifth and Fourteenth Amendment rights.[422] To conclude otherwise would doom the American people to throwing themselves off a cliff like the proverbial lemmings whenever the executive branch, together with

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417 *Juliana II*, 947 F.3d at 1170.

418 *Id.* at 1175.

419 Uzuegbunam v. Preczewski, 141 S. Ct. 792, 799–802 (2021).

420 *Id.*

421 *Juliana II*, 947 F.3d at 1177.

422 *See infra* text accompanying notes 423–27.

Congress, has been corrupted by a very powerful and wealthy industry such as the fossil fuel industry.[423]

The founding fathers, who drafted the Constitution, insisted not only that the three branches of government possess separate powers[424] but also that these three branches be connected enough that each branch be able to "check" the unrestrained power of the other two branches.[425] They clarified that the executive branch possesses the "power of the sword," the legislative branch possesses the "power of the purse," and the judicial branch possesses the "power of judgment."[426] Furthermore, they stated that "all possible care is requisite to enable . . . [the U.S. judicial branch] to defend itself against . . . [the] attacks [of the other two branches]."[427] The Ninth Circuit's holding that the plaintiffs do not possess standing to obtain a declaratory judgment to the effect that the U.S. executive branch is violating the plaintiffs' Fifth and Fourteenth Amendment rights under the U.S. Constitution[428] is incorrect, as it prevents the U.S. judicial branch from exercising the sole power that it possesses—the power of judgment.[429]

C. The Most Recent U.S. Supreme Court Opinions on Standing and Declaratory Judgments Support the Conclusion that the Plaintiffs in the Juliana *Case Possess Standing to Obtain a Declaratory Judgment*

The U.S. Supreme Court has recently confirmed long-standing law that "a plaintiff must demonstrate standing separately for each form of relief sought,"[430] and, to possess standing, a plaintiff must prove "(i) that he suffered an injury in fact that is concrete, particularized, and actual or imminent; (ii) that the injury was likely caused by the defendant; and (iii) that the injury would likely be redressed by judicial

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423 *See, e.g.*, *Do Lemmings Really Commit Mass Suicide?*, *supra* note 29.

424 THE FEDERALIST NO. 47, at 273 (James Madison) (Fall River Press 2021) ("The accumulation of all powers, legislative, executive, and judiciary, in the same hands, whether of one, a few, or many[] . . . , may justly be pronounced the very definition of tyranny.").

425 THE FEDERALIST NO. 48, at 280 (James Madison) (Fall River Press 2021) (stating that the three branches of government must "be so far connected and blended as to give to each a constitutional control over the others").

426 FEDERALIST 78, *supra* note 409, at 440 (stating that the judicial branch "may truly be said to have neither FORCE nor WILL, but merely judgment").

427 *Id.*

428 *See supra* text accompanying note 401.

429 FEDERALIST 78, *supra* note 409.

430 Friends of the Earth, Inc. v. Laidlaw Env't Servs., 528 U.S. 167, 185 (2000).

relief."[431] Furthermore, in order to establish the redressability criterion, a plaintiff "need only 'show a "substantial likelihood" that the relief sought would redress the injury,'" and "the court *has the power* to right or to prevent the claimed injury."[432] Finally, with respect to the first prong of the redressability criterion, "a plaintiff must show that it is 'likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.'"[433] For example, the redressability criterion is met when the requested remedy would "'slow or reduce' the harm."[434] In short, the first prong of the redressability criterion is established if a court can provide some type of meaningful relief.[435]

Furthermore, the Declaratory Judgment Act[436] states that

> [i]n a case of actual controversy within its jurisdiction . . . any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought.[437]

That a declaratory judgment by itself constitutes redress sufficient to grant a plaintiff standing is confirmed in numerous cases clarifying the U.S. constitutional rights of minors (discussed below in Section D of this Part V) as well as the 2021 U.S. Supreme Court case of *Uzuegbunam v. Preczewski*.[438] The Court's holding in *Uzuegbunam* is that a claim for nominal damages by itself constitutes sufficient redress to provide a plaintiff with standing, "where a plaintiff's claim is based on a completed violation of a legal right."[439] In addition, the Court in

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431 TransUnion LLC v. Ramirez, 141 S. Ct. 2190, 2203 (2021) (citing Lujan v. Defs. of Wildlife, 504 U.S. 555, 560–61 (1992)).

432 M.S. v. Brown, 902 F.3d 1076, 1083 (9th Cir. 2018) (quoting Lujan v. Defs. of Wildlife, 504 U.S. 555, 561 (1992) (internal quotation marks omitted); Gonzalez v. Gorsuch, 688 F.2d 1263, 1267 (9th Cir. 1982) (emphasis added)).

433 *Id.* (quoting Lujan v. Defs. of Wildlife 504 U.S. 555, 561 (1992)).

434 *Juliana I*, 217 F. Supp. 3d 1224, 1247 (citing Massachusetts v. EPA, 549 U.S. 497, 525 (2007) (in turn citing Larson v. Valente, 456 U.S. 228, 243 n.15 (1982))).

435 Cent. Delta Water Agency v. United States, 306 F.3d 938, 947 (9th Cir. 2002).

436 28 U.S.C. § 2201.

437 *Id.* § 2201(a).

438 Uzuegbunam v. Preczewski, 141 S. Ct. 792,799–802 (2021).

439 *Id.* at 802. The plaintiffs in the *Juliana* case, in the U.S. District Court for the District of Oregon, filed a motion for leave to file a second amended complaint adding a request for nominal damages. *See Role of Fossil Fuels*, *supra* note 156, at 21–22. On June 1, 2023, the district court granted this motion. Kelsey Cascadia Rose Juliana, et al., Plaintiffs v. United States of America, et al., Defendants, Opinion and Order, June 1, 2023, Civ. No. 6:15-cv-01517-AA, https://static1.squarespace.com/static/571d109b04426270152febe0/t/6478e362509ac610c4e9890c/1685644132156/Doc+540+Opinion+and+Order+Granting+Second+Amended+Complaint.pdf. Given this, plaintiffs' nominal damages claim by itself could

Uzuegbunam revealed that the remedy of nominal damages actually had been created to substitute for the remedy of a declaratory judgment before the U.S. Declaratory Judgment Act had been enacted.[440] The Court clarified that the remedy of nominal damages was necessitated by the long-established principles that "every violation [of a right] imports damage"[441] and a court must have a means of providing redress for any violation of a right of a plaintiff.[442] The Court explained that "[a] contrary rule would have meant, in many cases, that there was no remedy at all for those rights, such as due process and voting rights, that [are] . . . not readily reducible to monetary valuation."[443] Again, in the *Juliana* case, the plaintiffs allege that the U.S. government violated their Fifth Amendment substantive due process rights.[444]

According to the above-quoted language of the Declaratory Judgment Act, a federal court can issue a declaratory judgment only "[i]n a case of actual controversy within its jurisdiction,"[445] as the federal courts do not possess the power to issue mere advisory opinions.[446] Justice Scalia quoted numerous earlier cases when he stated in the 2007 case, *MedImmune, Inc. v. Genentech*,[447] that a federal court is empowered to issue a declaratory judgment when

> the dispute be "definite and concrete, touching the legal relations of parties having adverse legal interests"; and that it be "real and substantial" and "admi[t] of specific relief through a decree of a conclusive character, as distinguished from an opinion advising what the law would be upon a hypothetical state of facts."[448]

Justice Kavanaugh similarly stated in the 2021 case, *TransUnion LLC v. Ramirez*[449] that in order for "there to be a case or controversy under Article III, the plaintiff must have a 'personal stake' in the case . . . .

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provide sufficient redress for plaintiffs to possess standing under *Uzuegbunam*, 141 S. Ct. at 802.

440 *Uzuegbunam*, 141 S. Ct. at 805.

441 *Id.* at 802 (quoting Webb v. Portland Mfg. Co., 29 F. Cas. 506, 509 (C.C. Me. 1838) (No. 17,322)).

442 *Id.* at 799–802.

443 *Id.* at 800 (citing D. Dobbs, Law of Remedies § 3.3(2) (3d ed. 2018) (stating that nominal damages are often awarded for a right "not economic in character and for which no substantial non-pecuniary award is available")); *see also* Carey v. Piphus, 435 U.S. 247 (1978) (awarding nominal damages for a violation of procedural due process).

444 *See supra* text accompanying notes 336–38.

445 28 U.S.C. § 2201(a).

446 U.S. CONST. art. III, § 2.

447 MedImmune, Inc. v. Genetech, Inc., 549 U.S. 118 (2007).

448 *Id.* at 127 (citation omitted).

449 TransUnion LLC v. Ramirez, 141 S. Ct. 2190 (2021).

[P]laintiffs must be able to sufficiently answer the question: 'What's it to you?'"[450]

Of course, "injury-in-fact . . . ensures that plaintiffs have a personal stake in the outcome of the controversy."[451] Finally, to issue a declaratory judgment in any particular case, a federal court "must be satisfied that declaratory relief is appropriate—[this is] 'the prudential inquiry.'"[452]

Surely, the *Juliana* plaintiffs have a personal stake in the outcome of the case. Their personal interest is exceedingly strong, as they are alleging (among other things) that the executive branch, through its actions and omissions, is violating the plaintiffs' Fifth Amendment rights by depriving them of their rights to life, liberty, and property.[453] There is a "definite and concrete" dispute between the plaintiffs and the defendant; that dispute is "real and substantial" and "admit[s] of specific relief through a decree of a conclusive character, as distinguished from an opinion advising what the law would be upon a hypothetical state of facts."[454] Moreover, each plaintiff alleged "injury-in-fact," which ensures that each plaintiff has a personal stake in the outcome of the case.[455] Accordingly, the dispute between the plaintiffs and defendant in the *Juliana* case unquestionably meets the Declaratory Judgment Act's "case or controversy" requirement.[456]

The Ninth Circuit, in its *Juliana* opinion, agreed that the plaintiffs pleaded sufficient facts to establish both the "injury-in-fact" and "causation" requirements for standing.[457] Thus, the Ninth Circuit necessarily conceded that the "case or controversy" requirement is met in this case, and, of course, the district court considered the issuance of a declaratory judgment to be appropriate in this case.[458] Accordingly, with respect to the final criterion for standing—redressability—there also is no question that the district court possesses the power to issue a declaratory judgment.

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450 *Id.* at 2203 (quoting Antonin Scalia, *The Doctrine of Standing as an Essential Element of the Separation of Powers*, 17 SUFFOLK U. L. REV. 881, 882 (1983)).

451 Johnson v. Shree Radhe Corp., No. 5:17-cv-01414-JMC, 2018 WL 1409973, at *4 (D.S.C. Mar. 21, 2018) (citation and internal quotations omitted).

452 *Id.* at *3 (citation omitted).

453 *Juliana I*, 217 F. Supp. 3d 1224, 1233 (D. Or. 2016).

454 MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 138 (2007).

455 *Shree Radhe Corp*, 2018 WL 1409973, at *4.

456 28 U.S.C. § 2201.

457 *Juliana II*, 947 F.3d 1159, 1169 (9th Cir. 2020).

458 *Juliana I*, 217 F. Supp. 3d at 1272 ("[T]he court should decline to dismiss the complaint for failure to allege a substantive due process claim.").

The sole claim of the Ninth Circuit is that the district court's issuance of a declaratory judgment in this case is not "substantially likely to redress their [plaintiffs'] injuries,"[459] presumably because a mere statement that the executive branch is violating the plaintiffs' Fifth Amendment rights does not order the executive branch to take any particular action in response to such a judgment. This is nonsensical. Any responsible government agency would be expected to alter its actions in some manner in response to a court judgment stating that its actions violate the Constitution. And, in the *Juliana* case, such alterations in the executive branch's behavior should at least "slow or reduce the harm" imposed on the plaintiffs by global warming, given that the United States is the second largest emitter of greenhouse gases and over time has emitted more CO_2 than any other nation.[460] Such slowing or reduction of the harm being inflicted on the plaintiffs would establish that the first prong of the redressability criterion for standing likewise is met.[461] Moreover, the constitutional law cases discussed in Section V.D reveal that a declaratory judgment stating that the defendant is violating a plaintiff's U.S. constitutional rights in some manner, at a minimum, is implicitly accompanied by a mirror-image injunction to the defendant to stop violating the plaintiff's U.S. constitutional rights in the proscribed manner.[462]

Certainly, the district court's issuance of such a mirror-image injunction in the *Juliana* case would be substantially likely to redress the plaintiffs' injuries, especially given that the U.S. government could have been held in contempt if it had failed to heed such an injunction and alter its behavior.[463] Further, given that "federal courts retain broad authority 'to fashion practical remedies when confronted with complex . . . constitutional violations,'"[464] the Ninth Circuit in *Juliana* should have suggested to the U.S. District Court for the District of Oregon that it modify the plaintiffs' requested relief to include such a mirror-image injunction, rather than hold that the plaintiffs lack standing to obtain a declaratory judgment.[465] For all these reasons, the Ninth Circuit's

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459 *Juliana II*, 947 F.3d at 1170–72.

460 *See, e.g.*, Gabbatiss, *supra* note 397.

461 Massachusetts v. EPA, 549 U.S. 497, 525 (2007).

462 *See infra* text accompanying notes 474–81.

463 18 U.S.C. § 401.

464 *Juliana I*, 217 F. Supp. 3d. 1224, 1241–42 (D. Or. 2016).

465 As stated above, the plaintiffs in the *Juliana* case petitioned the U.S. district court to file a second amended complaint. In that second amended complaint, in addition to adding a request for nominal damages, the plaintiffs amended their requested injunction to simply order the defendants to cease violating the plaintiffs' U.S. constitutional rights. Proposed

holding that the plaintiffs lack standing to obtain a declaratory judgment in the *Juliana* case is incorrect. Section V.D discusses cases in which the U.S. Supreme Court, and in one case, the U.S. District Court for the Southern District of California, issued a declaratory judgment to the effect that some government agency action or law violated the U.S. constitutional rights of a minor.

D. Numerous Analogous Cases Support the Conclusion that the Plaintiffs in the Juliana *Case Possess Standing to Obtain a Declaratory Judgment*

Numerous cases demonstrate that the Ninth Circuit's holding that the plaintiffs in the *Juliana* case do not have standing to obtain a declaratory judgment is incorrect.[466] In each of these cases, the U.S. Supreme Court (and, in one case, the U.S. District Court for the Southern District of California) issued a declaratory judgment stating that some government agency action or law violated a minor's U.S. constitutional rights,[467] just as the plaintiffs in the *Juliana* case have requested.[468]

Probably the best example of this point is the landmark U.S. Supreme Court case of *Brown v. Board of Ed. of Topeka, Shawnee County, Kan*.[469] In *Brown*, school districts in four different states (Virginia, Kansas, South Carolina, and Delaware) prohibited African American children from attending public schools that were attended by Caucasian children.[470] At the same time, these school districts provided separate schools for these African American children[471] under the

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Second Amended Complaint, *supra* note 17, at 144. In addition, they explained how a declaratory judgment would likely cause the defendants to alter their behavior and at least slow or reduce the plaintiffs' injuries, thereby providing the plaintiffs with standing to pursue this case and obtain a declaratory judgment. *Id.* ¶¶ 12, 95A, 95B, 212, 276-A; *Role of Fossil Fuels*, *supra* note 156, at 16–20. The U.S. district court in Oregon granted this petition on June 1, 2023. Kelsey Cascadia Rose Juliana, et al., Plaintiffs v. United States of America, et al., Defendants, Opinion and Order, June 1, 2023, Civ. No. 6:15-cv-01517-AA, https://static1.squarespace.com/static/571d109b04426270152febe0/t/6478e362509ac610c4e9890c/1685644132156/Doc+540+Opinion+and+Order+Granting+Second+Amended+Complaint.pdf. This amended complaint may provide plaintiffs with sufficient redress for the Ninth Circuit to conclude that the plaintiffs possess standing to obtain a declaratory judgment.

466 *See infra* text accompanying notes 468–601.

467 *See infra* text accompanying notes 468–601.

468 *See supra* text accompanying note 341.

469 *Brown I*, 347 U.S. 483 (1954).

470 *Id.* at 487–88.

471 *Id.* at 488, 492–93.

"separate but equal" principle established in *Plessy v. Ferguson*.[472] African American school children in each of those school districts sued the school district, and the U.S. Supreme Court decided the four cases together under the case name of *Brown v. Board of Ed. of Topeka, Shawnee County, Kan*.[473]

In the Delaware case *Gebhart v. Belton*, the Chancellor in the Delaware Court of Chancery gave judgment to the plaintiffs and ordered the immediate admission of the African American children to the public schools attended by Caucasian children solely on the ground that the schools for African American children in New Castle County were inferior to the schools for Caucasian children in this county. In particular, the court noted, the schools for the African American children were inferior regarding "teacher training, pupil-teacher ratio, extracurricular activities, physical plants, and time and distance involved in travel."[474] The Supreme Court of Delaware affirmed the Chancellor's decree.[475] Then, the defendants in the Delaware case petitioned the U.S. Supreme Court for certiorari, and the U.S. Supreme Court granted this writ.[476]

In each of the three other cases—*Brown v. Board of Ed. of Topeka, Shawnee County, Kan.*, *Briggs v. Elliott* in South Carolina, and *Davis v. County School Board* in Virginia—the U.S. district court in question ruled against the plaintiffs.[477] Following the "separate but equal" principle of *Plessy v. Ferguson*,[478] the court in each of these cases either found that the African American schools were equivalent to the Caucasian schools in all relevant respects or ordered the relevant school district(s) to improve the African American schools so that they were then equal to the Caucasian schools in all relevant respects.[479] The plaintiffs in each of these three cases appealed directly to the U.S. Supreme Court under 28 U.S.C. § 1253.

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472 Plessy v. Ferguson, 163 U.S. 537 (1896).

473 *Brown I*, 347 U.S. 483.

474 *Id.* at 486 n.1 (citing Belton v. Gebhart, 87 A.2d 862 (Del. 1952)).

475 *Id.* (citing Gebhart v. Belton, 91 A.2d 137, 152 (Del. 1952)).

476 *Id.* (citing Gebhart v. Belton, 334 U.S. 891 (1952)).

477 *Id.* (citing Brown v. Bd. of Educ., 98 F. Supp. 797 (D. Kan. 1951); Briggs v. Elliott, 98 F. Supp. 529 (E.D.S.C 1951); Briggs v. Elliott, 103 F. Supp. 920 (E.D.S.C 1952); Davis v. Cnty. Sch. Bd., 103 F. Supp. 337 (E.D. Va. 1952)).

478 Plessy v. Ferguson, 163 U.S. 537 (1896).

479 *Brown I*, 347 U.S. at 486 n.1 (citing Brown v. Bd. of Educ., 98 F. Supp. 797 (D. Kan. 1951); Briggs v. Elliott, 98 F. Supp. 529 (E.D.S.C 1951); Briggs v. Elliott, 103 F. Supp. 920 (E.D.S.C 1952); Davis v. Cnty. Sch. Bd., 103 F. Supp. 337 (E.D. Va. 1952)).

In *Brown*, the U.S. Supreme Court famously overruled *Plessy v. Ferguson*[480] and issued a declaratory judgment that the segregation of children in public schools solely on the basis of race, even though the separate schools may be equal in all relevant respects, deprives the children of the minority group of equal protection of the law guaranteed to them by the Fourteenth Amendment to the U.S. Constitution.[481] The U.S. Supreme Court did not issue any relief to the plaintiffs other than this declaratory judgment, except an implied mirror-image injunction to public school districts to stop violating the plaintiffs' Fifth Amendment rights in the proscribed manner,[482] and no one would seriously contend that the plaintiffs in this case did not possess standing to bring the case or obtain this declaratory judgment. Per the admonitions of Lord Holt and Justice Story, the Court apparently understood both that the plaintiffs were injured by the defendants' violation of their U.S. constitutional rights and the federal courts must possess some means of redressing that injury.[483] In other words, the Court apparently understood that its declaratory judgment, at a minimum, was implicitly accompanied by an injunction to the defendant school districts to stop violating the plaintiffs' Fourteenth Amendment equal protection rights.

Furthermore, although this point is not directly relevant to this Article, it is noteworthy that the U.S. Supreme Court understood that fashioning specific injunctions designed to desegregate each individual school district would require consideration of numerous local factors.[484] Accordingly, the Court ultimately remanded the cases back to the relevant district courts to consider such local factors and then issue injunctions desegregating the individual school districts.[485] Despite the complexity of fashioning injunctions responsive to the relevant facts in school districts around the country, the Court did not hold that the federal courts do not possess the power to issue and monitor such injunctions.[486] Furthermore, the task of fashioning desegregation injunctions for school districts around the United States, which the U.S. Supreme Court in *Brown* ordered the district courts to do, seems no less complicated than fashioning an injunction ordering

480 *Id.*

481 *Id.*

482 *Id.* at 495–96.

483 *See supra* text accompanying notes 410–11.

484 *Brown II*, 349 U.S. 294, 298–301 (1955).

485 *Id.*

486 *Id.*

the U.S. executive branch to implement some plan to decrease greenhouse emissions in the United States.[487]

Also, it would have made no sense for the U.S. Supreme Court in the *Brown* case to have held that the defendant local school districts were violating the plaintiffs' Fourteenth Amendment rights and then delegate the task of desegregating those school districts to those school districts. Similarly, in the *Juliana* case, it makes no sense for the Ninth Circuit to have held that the plaintiffs, for purposes of the defendants' motion to dismiss for lack of standing, have alleged sufficient facts to establish that the executive branch is violating the plaintiffs' Fifth Amendment rights but that only the defendant (and/or Congress) can remedy those violations. In *Brown*, the U.S. Supreme Court did the sensible thing—give the plaintiffs their declaratory judgment upfront and then order the Judicial Branch, and specifically, U.S. district courts, to take the time necessary to fashion meaningful injunctive relief.[488]

In *West Virginia State Board of Education v. Barnette*,[489] the U.S. Supreme Court protected minors' First Amendment rights to freedom of speech and religion.[490] In this case, the West Virginia State Board of Education adopted a rule requiring each public school teacher and each child who attends a public school in West Virginia to salute the American flag and recite the pledge of allegiance at the commencement of each school day.[491] A student who violated this rule was to be expelled from school, and furthermore, his or her absence from school was to be considered unexcused, and he or she could then be treated as a delinquent by the criminal authorities.[492] His or her parents or guardians were also subject to prosecution, and if convicted, they were subject to a fine not to exceed fifty dollars and a jail term not to exceed thirty days.[493]

According to the plaintiffs who practiced the Jehovah's Witnesses faith, compliance with this law would directly violate one of the main tenets of their faith.[494] Specifically, Jehovah's Witnesses believe a

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487 *See supra* text accompanying notes 467–85.

488 *Brown II*, 349 U.S. at 298–301.

489 W. Va. State Bd. of Educ. v. Barnette, 319 U.S. 624 (1943).

490 *Id.* at 641–42.

491 *Id.* at 626–29. Specifically, at the time of this case, the saluter was required to keep his or her right hand raised with palm turned up while reciting the following: "I pledge allegiance to the Flag of the United States of America and to the Republic for which it stands; one Nation, indivisible, with liberty and justice for all." *Id.* at 628–29.

492 *Id.* at 629.

493 *Id.*

494 *Id.*

literal version of the book of Exodus 20:4–5 in the Bible, which states, "Thou shalt not make unto thee any graven image, or any likeness of anything that is in heaven above, or that is in the earth beneath, or that is in the water under the earth; thou shalt not bow down thyself to them nor serve them."[495] They furthermore believe that the American flag is an "image" referred to in this Bible passage,[496] and for this reason, the minor plaintiffs in *Barnette* refused to salute it.[497] Consequently, they and their parents/guardians suffered the penalties outlined above.[498]

These students and their parents/guardians filed suit on behalf of themselves and others similarly situated against the West Virginia State Board of Education in the U.S. District Court of West Virginia, challenging enforcement of this rule against them.[499] The district court ruled in the plaintiffs' favor, and the West Virginia State Board of Education then filed a direct appeal with the U.S. Supreme Court.[500] The U.S. Supreme Court issued a declaratory judgment stating that enforcement of this rule against the plaintiffs, Jehovah's Witnesses, violated their rights to freedom of speech and freedom of religion, as guaranteed by the First and Fourteenth Amendments.[501] At the same time, the U.S. Supreme Court also affirmed the lower court's implied mirror-image injunction, to wit: stop violating plaintiffs' First Amendment rights in the proscribed manner.[502] This declaratory judgment and accompanying mirror-image injunction were immensely valuable not only to the plaintiffs in *Barnette* but also to public school students and their parents all around the United States.[503] Following this case, no public school district in the United States could compel a student to salute the American flag or recite a pledge of allegiance to the United States.[504]

Two other holdings in the U.S. Supreme Court case of *Barnette* are of particular relevance to the *Juliana* case. First, the Court in *Barnette* held that, when a government is infringing a right of the plaintiff guaranteed by the Bill of Rights[505] (consisting of the first ten

495 *Id.* (quoting Exodus 20:4–5).
496 *Id.*
497 *Id.*
498 *Id.* at 630.
499 *Id.* at 629.
500 *Id.* at 630.
501 *Id.* at 642.
502 *Id.*
503 *Id.*
504 *Id.*
505 U.S. CONST. amend. I–X.

amendments to the U.S. Constitution),[506] the judiciary must not cede power to the other branches of government and must safeguard that right, even if the judiciary does not possess marked competence in the field in which the invasion of rights occurred.[507] The Ninth Circuit, in its *Juliana* opinion, held that it must accept, for purposes of the defendants' motion to dismiss for lack of standing, that the U.S. executive branch is violating the plaintiffs' Fifth Amendment rights[508] (and of course the Fifth Amendment is contained in the Bill of Rights).[509] However, it then held that only the U.S. executive branch (and/or the U.S. Congress) can remedy that violation.[510] This is completely nonsensical and contrary to the "Judiciary, stand your ground in safeguarding U.S. constitutional rights" holding in *Barnette*.

Second, the *Barnette* Court held that

> [t]he very purpose of a Bill of Rights was to withdraw certain subjects from the vicissitudes of political controversy, to place them beyond the reach of majorities and officials and to establish them as legal principles to be applied by the courts. One's right to life, liberty, and property, to free speech, a free press, freedom of worship and assembly, and other fundamental rights may not be submitted to vote; they depend on the outcome of no elections.[511]

The Ninth Circuit in *Juliana* held that it must be assumed that the U.S. executive branch is violating plaintiffs' substantive due process rights in violation of the Fifth Amendment.[512] However, it then held that plaintiffs must turn to the two political branches of the U.S. government (including the executive branch) for relief. This latter holding is entirely inconsistent with this last holding in *Barnette*. The Ninth Circuit in *Juliana* should not have held that the plaintiffs must turn to the two political branches for relief.[513] Moreover, it should not have held that the plaintiffs' Fifth Amendment rights are subject to a political vote.[514] *Barnette* confirms that it is particularly the province

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506 *Bill of Rights (1791)*, NAT'L ARCHIVES, https://www.archives.gov/milestone-documents/bill-of-rights [https://perma.cc/HGM6-WGUB?type=image] (last visited Sept. 19, 2023).

507 *Barnette*, 319 U.S. at 639–40.

508 *Juliana II*, 947 F.3d 1159, 1169–70 (9th Cir. 2020).

509 *Bill of Rights (1791)*, *supra* note 506.

510 *Juliana II*, 947 F.3d at 1175.

511 *Barnette*, 319 U.S. at 638.

512 *Juliana II*, 947 F.3d at 1175.

513 *Id.*

514 *Id.*

of the judiciary to declare and safeguard individuals' U.S. constitutional rights.[515]

In *Mahanoy Area School District v. B.L. by and through Levy*,[516] the U.S. Supreme Court issued yet another declaratory judgment safeguarding minors' First Amendment free speech rights.[517] In *Mahanoy*, a student at Mahanoy Area High School in Mahanoy City, Pennsylvania, using the Snapchat application, incorporated profanity in the caption of one of two images that she posted to her (approximately 250) "Snapchat friends."[518] This post alluded to her disappointment at not having been chosen to be a member of the varsity cheerleading squad at her high school.[519] To protect her privacy, the student is referred to as "B.L." throughout the Court's opinion.[520] At the time that B. L. posted these images, she was visiting a convenience store on a Saturday.[521] Hence, B.L.'s speech was made both off campus and after hours.[522] Some of B.L.'s Snapchat friends were on the cheerleading squad.[523]

One of the images posted by B.L. included a picture of herself and another student with their middle fingers raised and carried the caption "Fuck school fuck softball fuck cheer fuck everything."[524] The second image was blank but carried the caption "Love how me and [another student] get told we need a year of jv before we make varsity but tha[t] doesn't matter to anyone else?" followed by an upside-down smiley-face emoji.[525] Apparently, B.L. was particularly upset that an incoming freshman with no junior varsity cheerleading experience had been chosen for the varsity cheerleading squad.[526]

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515 Marbury v. Madison, 5 U.S. 137, 177 (1803) ("It is emphatically the province and duty of the judicial department to say what the law is."); THE FEDERALIST NO. 78 (Alexander Hamilton) (Fall River Press 2021) ("The interpretation of the laws is the proper and peculiar province of the courts. A constitution is, in fact, and must be, regarded by the judges, as a fundamental law. It therefore belongs to them to ascertain its meaning . . . .").

516 Mahanoy Area Sch. Dist. v. B.L., 141 S. Ct. 2038 (2021).

517 *Id.* at 2048.

518 *Id.* at 2042.

519 *Id.*

520 *Id.*

521 *Id.*

522 *Id.*

523 *Id.*

524 *Id.*

525 *Id.* (alteration in original).

526 *Id.*

B.L.'s posts were available for B.L.'s Snapchat friends to view for only twenty-four hours,[527] but one of her "Snapchat friends" took pictures of B.L.'s posts, and ultimately the posts were shared with B.L.'s cheerleading coaches.[528] After discussing the issue with the school principal, the coaches suspended B.L. from the junior varsity cheerleading squad for the upcoming year, on the ground that the first image that she posted used profanity in connection with a school extracurricular activity, and doing so violated team and school rules.[529]

B.L. and her parents sought to reverse B.L.'s punishment, but Mahanoy Area High School and Mahoney Area School District held firm.[530] B.L. and her parents then sued the Mahanoy Area School District, arguing that the district's punishment of B.L. for her above-mentioned speech on a Saturday at an off-campus location violated her First Amendment rights.[531] The district court granted B.L. a temporary restraining order and then a preliminary injunction instructing the school to reinstate B.L. to the junior varsity cheerleading squad.[532] B.L. also prevailed on the merits at the district court, with the district court issuing a declaratory judgment stating that the school district had violated her First Amendment rights.[533] It also ordered the school district to expunge reference to this event from B.L.'s disciplinary record, pay B.L. nominal damages, and reimburse her attorneys' fees.[534] B.L. also prevailed before the U.S. Court of Appeals for the Third Circuit.[535] The school district then filed a petition for certiorari in the U.S. Supreme Court, and the Court granted the petition.[536]

The U.S. Supreme Court affirmed the Third Circuit's judgment, declaring that the school district's punishment of B.L. for her speech had indeed violated her First Amendment rights.[537] In its opinion, the Court followed one of its earlier cases, *Tinker v. Des Moines Indep. Cmty. School Dist.*[538] Specifically, the Court held that, while school districts can regulate some off-campus, after-hours student speech, the

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527 *Id.*
528 *Id.*
529 *Id.*
530 *Id.*
531 *Id.* at 2040.
532 *Id.*
533 *Id.* at 2043.
534 *Id.* at 2044.
535 *Id.*
536 *Id.*
537 *Id.* at 2048.
538 Tinker v. Des Moines Indep. Cmty. Sch. Dist., 393 U.S. 503 (1969).

Mahanoy Area School District could not punish B.L.'s speech because her off-campus, after-hours speech did not materially disrupt any classwork, cause substantial disorder at her school, or invade the rights of others.[539]

By the time that the U.S. Supreme Court issued its declaratory judgment in this case, B.L. had already graduated from Mahanoy Area High School and was a college student.[540] Therefore, the Court's issuance of a declaratory judgment and even an implied mirror-image injunction to the Mahanoy Area School District to "stop violating B.L.'s First Amendment rights in this manner" could not actually redress B.L.'s injury. Yet, the U.S. Supreme Court still issued this declaratory judgment,[541] and this judgment provided clarity on an important U.S. constitutional law question not only for B.L. and the Mahanoy Area School District but also for minors and public school districts all around the United States.

The U.S. Supreme Court's declaratory judgment in the 2005 case of *Roper v. Simmons*[542] similarly benefitted minors all across the United States. In this case, the Court declared that the execution of a person who was under eighteen at the time of his or her capital crime violates the Eighth Amendment prohibition against cruel and unusual punishment.[543] Christopher Simmons committed a particularly gruesome killing in Missouri when he was seventeen years old.[544] He and a couple of friends broke into a home, burglarized the home, tied the hands and feet of the woman who lived in the home, covered this woman's face with duct tape and then threw her off a train trestle so that she drowned in the water below.[545] He talked about committing such a murder before he did so,[546] and he bragged about having done so after the fact.[547] He even encouraged his accomplices to take part in this crime by telling them that they would be able to get away with it because they were only minors.[548] Arguably, Christopher Simmons

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539 *Mahanoy*, 141 S. Ct. at 2045–48.

540 Adam Liptak, *Supreme Court Rules for Cheerleader Punished for Vulgar Snapchat Message*, N.Y. TIMES (June 23, 2021), https://www.nytimes.com/2021/06/23/us/supreme-court-free-speech-cheerleader.html.

541 *Mahanoy*, 141 S. Ct. at 2045–48.

542 Roper v. Simmons, 543 U.S. 551 (2005).

543 *Id.* at 578–79.

544 *Id.* at 556–57.

545 *Id.*

546 *Id.* at 556.

547 *Id.* at 557.

548 *Id.* at 556.

was the perfect example of a minor whose crimes were deserving of the death penalty, and, when he was eighteen years old, a jury convicted him of first degree murder and sentenced him to death.[549] Simmons lost his direct appeal and his subsequent petitions for state and federal postconviction relief.[550]

Then, the U.S. Supreme Court, in the 2002 case of *Atkins v. Virginia*,[551] declared that the prohibition against cruel and unusual punishment in the Eighth Amendment, applicable to the States through the Fourteenth Amendment, prohibits the execution of an intellectually disabled person.[552] Thereafter, Simmons filed a new petition for state postconviction relief, arguing that the reasoning in *Atkins* likewise supported the conclusion that the execution of a person who was under eighteen when he committed his crime violated the minor's Eighth Amendment rights.[553] The Missouri Supreme Court agreed with Simmons and converted his death penalty to life in prison without parole.[554] The State of Missouri then filed a petition for certiorari, and the U.S. Supreme Court granted this petition.[555]

In its *Atkins* and *Roper* opinions, the U.S. Supreme Court stated that the two main rationales for the death penalty are retribution and deterrence.[556] In *Atkins*, the Court concluded that the execution of an intellectually disabled person served neither of these two purposes, given the person's diminished capacity to understand right and wrong and be deterred by the threat of capital punishment,[557] and the Court in *Roper* agreed with the Missouri Supreme Court that a minor's emotional immaturity led inexorably to the same conclusion.[558] In *Roper*, the Court also laid out in great detail how most states in the United States and all countries in the world had abandoned capital punishment for minors.[559]

Thereafter, neither Missouri nor any U.S. state could execute a person who had committed a capital crime when he or she was younger than eighteen. However, it is important to understand that the above

549 *Id.* at 557–59.
550 *Id.* at 551, 559.
551 Atkins v. Virginia, 536 U.S. 304 (2002).
552 *Id.* at 321.
553 *Roper*, 543 U.S. at 559.
554 *Id.* at 551.
555 *Id.* at 560.
556 *Roper*, 543 U.S. at 553; *Atkins*, 536 U.S. at 319.
557 *Roper*, 543 U.S. at 553–54.
558 *Id.*
559 *Id.* at 554–55, 575–79, Appendix A.

declaratory judgment issued by the U.S. Supreme Court in *Roper*, by itself, could not prevent Missouri from executing Simmons. Rather, a declaratory judgment issued by an Article III federal judge that a defendant's conduct is violating the plaintiff's constitutional rights in a particular manner necessarily is implicitly accompanied by an injunction that, at a minimum, directs the defendant: do not violate the plaintiff's U.S. constitutional rights in this manner. Like this mirror-image injunction in the *Roper* case, a similarly implied mirror-image injunction in the *Juliana* case—do not violate the plaintiffs' Fifth Amendment rights in this manner—would provide the plaintiffs with meaningful redress and hence with standing to obtain a declaratory judgment.[560]

Seven years later, in 2012, the U.S. Supreme Court extended its reasoning in *Atkins*[561] and *Roper*[562] to declare in *Miller v. Alabama*[563] that *mandatory* life imprisonment without parole for those under the age of eighteen at the time of their crimes violates the Eighth Amendment prohibition on cruel and unusual punishment, made applicable to the states through the Fourteenth Amendment.[564] The defendant in this case, Evan Miller, was fourteen years old at the time of his crime in Alabama.[565] He was in foster care because his mother was an alcoholic and drug addict and his stepfather abused him.[566] Miller abused drugs and alcohol himself. He had attempted suicide four times before his crime, with his first attempt occurring when he was six years old.[567]

> One night in 2003, Miller was at home with a friend, Colby Smith, when a neighbor, Cole Cannon, came to make a drug deal with Miller's mother. The two boys followed Cannon back to his trailer, where all three smoked marijuana and played drinking games. When Cannon passed out, Miller stole his wallet, splitting about $300 with Smith. Miller then tried to put the wallet back in Cannon's pocket, but Cannon awoke and grabbed Miller by the throat. Smith hit Cannon with a nearby baseball bat and, once released, Miller grabbed the bat and repeatedly struck Cannon with it. Miller placed a sheet over Cannon's head, told him "I am God, I've come to take your life," and delivered one more blow. The boys then retreated to Miller's

560 Cent. Delta Water Agency v. United States, 306 F.3d 938, 947 (9th Cir. 2002).

561 *Atkins*, 536 U.S. 304.

562 *Roper*, 543 U.S. 551.

563 Miller v. Alabama, 567 U.S. 460 (2012).

564 *Id.* at 479.

565 *Id.* at 467.

566 *Id.*

567 *Id.*

> trailer, but soon decided to return to Cannon's to cover up evidence of their crime. Once there, they lit two fires. Cannon eventually died from his injuries and smoke inhalation.[568]

In Alabama at the time, Miller was initially required to be charged as a juvenile.[569] However, Alabama law permitted the District Attorney to remove the case to adult court, and the District Attorney did so.[570] The juvenile court agreed to transfer the case to the adult court, and the Alabama Court of Criminal Appeals affirmed this transfer.[571] In adult court, Miller was charged with murder in the course of arson, and, in Alabama, that crime carries a mandatory minimum punishment of life without parole.[572] A jury found Miller guilty, and therefore, he was automatically sentenced to life without parole.[573] The Alabama Court of Criminal Appeals, once again, affirmed, the Alabama Supreme Court denied review,[574] and the U.S. Supreme Court granted certiorari to hear the case.[575]

The U.S. Supreme Court clarified that, in *Miller v. Alabama*, it was not holding that a state could never sentence a juvenile offender to life in prison without the possibility of parole.[576] Rather, it noted that imposition of such a punishment on one who was a minor at the time of his or her crime should be rare,[577] and it mandated that a sentencer, in considering imposing a sentence of life without parole for a crime committed as a juvenile, must take into account "how children are different, and how those differences counsel against irrevocably sentencing them to a lifetime in prison."[578]

According to the Court, the characteristics that distinguish children from adults are the following:

> First, children have a "lack of maturity and an underdeveloped sense of responsibility," leading to recklessness, impulsivity, and heedless risk-taking.
>
> Second, children "are more vulnerable . . . to negative influences and outside pressures," including from their family and peers; they

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568 *Id.* at 468.
569 *Id.*
570 *Id.*
571 *Id.*
572 *Id.* at 468–69.
573 *Id.* at 469.
574 *Id.*
575 *Id.*
576 *Id.* at 479–80.
577 *Id.* at 479.
578 *Id.* at 480.

> have limited "contro[l] over their own environment" and lack the ability to extricate themselves from horrific, crime-producing settings.
>
> And third, a child's character is not as "well formed" as an adult's; his traits are "less fixed" and his actions less likely to be "evidence of irretrievabl[e] deprav[ity]."[579]

The Court pointed out that a judge should consider the above three characteristics, together with the average juvenile's "heightened capacity for change" when sentencing a juvenile to life in prison without the possibility of parole.[580]

The *Miller v. Alabama* case has had a tremendous positive impact on juveniles throughout the United States. Today, ten years after the U.S. Supreme Court's declaratory judgment in *Miller v. Alabama*, a majority of States do not even permit a sentence of life without the possibility of parole for someone who committed his or her crime as a juvenile.[581] Furthermore, thirty-two states as well as the District of Columbia either do not permit a sentence of life without the possibility of parole for someone who committed his or her crime as a juvenile or do not have anyone in custody who is serving such a sentence for a crime committed as a juvenile.[582]

Similar to the declaratory judgment in *Roper*, the U.S. Supreme Court's declaratory judgment in *Miller v. Alabama* by itself could not change the law in Alabama or force a sentencer in Alabama to consider Miller's diminished culpability and heightened capacity for change at the time of his crime. Rather, the U.S. Supreme Court's declaratory judgment that a mandatory life sentence without parole violates Miller's Eighth and Fourteenth Amendment rights included an implicit injunction: Do not continue violating Miller's U.S. constitutional rights in the proscribed manner.[583] Again, such an implicit injunction in the *Juliana* case—Do not continue violating the plaintiffs' Fifth Amendment rights in this manner—likewise would provide the

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579 *Id.* at 471 (citations omitted) (quoting Roper v. Simmons, 543 U.S. 551 (2005).

580 *Id.* at 479.

581 *Ten Years After* Miller v. Alabama, EQUAL JUST. INITIATIVE (June 23, 2022), https://eji.org/news/ten-years-after-miller-v-alabama/ [https://perma.cc/HY63-8GTT].

582 *Id.*

583 Miller ultimately was granted a new sentencing hearing and was once again sentenced to life imprisonment without the possibility of parole. Kent Faulk, *Evan Miller, Youngest Person Ever Sentenced to Life Without Parole in Alabama, Must Remain in Prison*, AL.COM. (Apr. 27, 2021, 5:25 PM), https://www.al.com/news/2021/04/evan-miller-youngest-child-ever-sentenced-to-life-without-parole-in-alabama-must-remain-in-prison.html [https://perma.cc/L8XT-X22P].

plaintiffs with meaningful redress and hence with standing to obtain a declaratory judgment.[584]

Minors' Second Amendment rights were safeguarded by the U.S. District Court for the Southern District of California in the case of *Miller v. Bonta*.[585] In this case, various pro-gun groups filed suit alleging that California's Roberti-Roos Assault Weapons Control Act of 1989 (AWCA),[586] along with a series of related laws, such as California Penal Code section 30950, which prohibited possession of assault weapons by minors, violated individuals' Second Amendment right to bear arms.[587] Three San Diego County men who owned legal rifles or pistols but couldn't use high-capacity magazines in their guns joined the suit as plaintiffs.[588]

The California Legislature had enacted the AWCA in 1989 in response to the Cleveland Elementary School shooting in Stockton that year.[589] On January 17, 1989, a twenty-four-year-old man named Patrick Purdy walked onto the campus of Cleveland Elementary School at around noon, when hundreds of children were playing outside during their lunch break.[590] Purdy himself had once attended this school as a child.[591] Armed with an AKS rifle, a semiautomatic version of an AK-47, which is used by the U.S. military, Purdy fired more than one hundred rounds in a minute, killing five students below the age of ten, and injuring twenty-nine other students and a teacher. Finally, he used the weapon to kill himself.[592] The Cleveland Elementary School

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584 *See* Cent. Delta Water Agency v. United States, 306 F.3d 938, 947 (9th Cir. 2002).

585 Miller v. Bonta, 542 F. Supp. 3d 1009 (2021).

586 CAL. PENAL CODE § 30510.

587 Alex Wigglesworth & Thomas Curwen, *After Judge Overturns California Assault Weapons Ban, State Officials Vow to Fight Back*, L.A. TIMES (June 5, 2021, 7:32 PM), https://www.latimes.com/california/story/2021-06-05/after-judge-overturns-california-assault-weapons-ban-state-officials-vow-to-fight-back [https://perma.cc/MKW6-52NJ]; Vincent Moleski, *As Gun Owners Celebrate, Officials Say They'll Fight to Keep California Assault Weapons Ban*, SACRAMENTO BEE (June 05, 2021), https://www.sacbee.com/news/california/article251922033.html; Kanishka Singh, *U.S. Federal Judge Overturns California's Ban on Assault Weapons*, REUTERS (June 7, 2021, 2:34 AM), https://www.reuters.com/world/us/us-federal-judge-overturns-californias-ban-assault-weapons-2021-06-05/ [https://perma.cc/TN6R-4S5E].

588 Wigglesworth & Curwen, *supra* note 587.

589 Eric Escalante, *Need to Know: The 1989 Cleveland School Shooting*, ABC 10 (Jan. 17, 2019, 5:31 PM), https://www.abc10.com/article/news/local/stockton/need-to-know-the-1989-cleveland-school-shooting/103-bf6463b2-ce78-4ba1-9216-fc2c79907f82 [https://perma.cc/Z6HY-XDZW].

590 *Id.*

591 *Id.*

592 *Id.*

massacre was one of the first mass school shootings in the country, and Californians were horrified. The California Legislature justified enactment of the AWCA by stating that assault weapons such as the one used by Purdy have "such a high rate of fire and capacity for firepower that . . . [their] function as . . . legitimate sports or recreational firearm[s] is substantially outweighed by the danger that . . . [they] can be used to kill and injure human beings."[593]

Thirty-two years later, in his opinion in *Miller v. Bonta*, U.S. District Court Judge Roger Benitez described the AR-15 assault weapon as "like the Swiss Army knife . . . , a perfect combination of home defense weapon and homeland defense equipment."[594] He presented a wide variety of statistics (e.g., demonstrating that more people die from knife wounds than gunshots in California and across the United States each year) to support his conclusion that the AR-15 is not especially dangerous.[595] Ultimately, he declared that California's AWCA and related laws violated the plaintiffs' Second Amendment rights, because the AR-15 and other similar assault weapons are commonly owned by Californians for lawful purposes.[596] Judge Benitez even safeguarded minors' rights to own assault weapons in California by including California Penal Code section 30950 among the laws that he struck down as violating individuals' Second Amendment rights.[597]

Judge Benitez, furthermore, specifically enjoined California Attorney General Bonta and any other California or federal law enforcement officer from enforcing these laws and instructed Bonta to provide actual notice of Benitez's order to all law enforcement personnel who are responsible for enforcing these laws.[598] As indicated above, however, even if Judge Benitez had not specifically enjoined the enforcement of these laws, at least a mirror-image injunction directing law enforcement officers not to enforce these laws in California would have necessarily been implied.[599]

The above discussion of Article III federal judges' issuance of declaratory judgments safeguarding minors' constitutional rights

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593 CAL. PENAL CODE § 30505(a).

594 Miller v. Bonta, 542 F. Supp. 3d 1009, 1014 (2021).

595 *See, e.g.*, *id.* at 1015 (stating that, throughout the United States, killing by knife attack is far more common than murder by any kind of rifle, and, in California, murder by knife occurs seven times more often than murder by rifle).

596 *Id.* at 1021.

597 *Id.* at 1068–69.

598 *Id.* at 1069.

599 *See supra* text accompanying notes 18–20 and 464–583.

demonstrates that such judgments are both common and extremely important for both the minors concerned and society at large. Moreover, this discussion demonstrates that, at a minimum, such a declaratory judgment is implicitly accompanied by a mirror-image injunction instructing the defendant to stop violating the plaintiff's U.S. constitutional rights in the proscribed manner. This is true unless the court explicitly ordered such injunctive relief or even more specific injunctive relief, as Judge Benitez did in the case of *Miller v. Bonta*.[600]

Even if the Ninth Circuit Court of Appeals' holding that a federal court does not possess the power to issue a declaratory judgment when the judgment would provide the plaintiffs with only "psychic satisfaction"[601] were correct, that holding does not apply to this case. In the *Juliana* case, a declaratory judgment stating that the U.S. executive branch is violating the plaintiffs' Fifth Amendment rights to life, liberty, and property would be accompanied by an implicit, mirror-image injunction ordering the executive branch to stop violating the plaintiffs' Fifth Amendment rights. This would provide very meaningful relief to the plaintiffs, far beyond mere "psychic satisfaction." Such an injunction would not interfere with the executive branch's decision-making powers by instructing the executive branch what action(s) to take to lower greenhouse gas emissions in the United States and thereby slow global warming. However, without violating the plaintiffs' Fifth Amendment rights and hence such an injunction, the executive branch could no longer continue to promote the fossil fuel industry without limit, resulting in ever-increasing greenhouse gas emissions and temperatures. Given that the defendant is continuing to violate the plaintiffs' Fifth Amendment rights, such an injunction would likely provide redress for the plaintiffs' continuing injuries and accordingly provide the plaintiffs with standing to obtain a declaratory judgment in the *Juliana* case.[602]

CONCLUSION

As explained above, the Ninth Circuit's holding that the *Juliana* plaintiffs do not possess standing to obtain a declaratory judgment regarding whether the U.S. government is violating their Fifth Amendment rights to life, liberty, and property is incorrect. It is

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600 *See supra* text accompanying note 597.

601 *Juliana II*, 947 F.3d 1159, 1170 (9th Cir. 2020).

602 Cent. Delta Water Agency v. United States, 306 F.3d 938, 947 (9th Cir. 2002).

inconsistent with long-established general principles of law,[603] the founding fathers' intent,[604] the U.S. Supreme Court's most recent opinions on standing and declaratory judgments,[605] and numerous cases in which the Court or another lower federal court issued a declaratory judgment stating that a government agency is violating a minor's constitutional rights.[606]

Both the district court and the Ninth Circuit have held that the plaintiffs have pleaded sufficient facts to prove both injuries-in-fact due to global warming and that the U.S. government, at least in substantial part, has caused those injuries.[607] Thus, if the plaintiffs could prove that the third criteria for standing—redressability—is also met, they would be entitled to receive a declaratory judgment and a mirror-image injunction.[608] The declaratory judgment, in effect, would state that the government is violating the plaintiffs' Fifth Amendment rights, and the mirror-image injunction, in effect, would order the government to cease violating plaintiffs' Fifth Amendment rights.[609] This relief would at least slow or reduce the plaintiffs' future injuries-in-fact from global warming as U.S. government officials are expected to comply with a declaratory judgment issued by a court.[610] This, in turn, would establish the third criterion for standing—that the plaintiff's injury would likely be redressed by judicial relief.[611]

Since the plaintiffs filed their suit against the U.S. government in 2015, the world has continued to get warmer and warmer, with the "past nine years [being] . . . the warmest years since modern recordkeeping began in 1880. This means Earth in 2022 was about 2 degrees Fahrenheit (or about 1.11 degrees Celsius) warmer than the late 19th century average."[612] Predictably, the world has suffered much more serious effects as a result. "Forest fires are intensifying;

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603 *See supra* text accompanying notes 404–15.

604 *See supra* text accompanying notes 416–27.

605 *See supra* text accompanying notes 428–63.

606 *See supra* text accompanying notes 464–599.

607 *See supra* text accompanying notes 368, 378, and 391.

608 *See* text accompanying *supra* notes 358 and 392.

609 *See* text accompanying *supra* notes 598–99.

610 Utah v. Evans, 536 U.S. 452, 463–64 (2002).

611 Massachusetts v. EPA, 549 U.S. 497, 525 (2007) (citing Larson v. Valente, 456 U.S. 228, 243, n.15 (1982)); TransUnion LLC v. Ramirez, 141 S. Ct. 2190, 2203 (2021) (citing Lujan v. Defs. of Wildlife, 504 U.S. 555, 560-61 (1992)).

612 Tylar Greene & Jacob Richmond, *NASA Says 2022 Fifth Warmest Year on Record, Warming Trend Continues*, NASA (Jan. 12, 2023), https://www.nasa.gov/press-release/nasa-says-2022-fifth-warmest-year-on-record-warming-trend-continues [https://perma.cc/STS5-2ZMH].

hurricanes are getting stronger; droughts are wreaking havoc and sea levels are rising."[613]

Most countries in the world signed the Paris Agreement[614] in 2015,[615] and that agreement provides that each signatory will attempt to abide by its "nationally determined contribution" (NDC) to reduce greenhouse gas emissions.[616] However, those NDCs are nonbinding,[617] most countries are not meeting their NDCs,[618] and those NDCs need to be much more aggressive in any case for the parties to limit the increase in the average global temperature to 1.5°C. The increase in temperature here refers to an increase above the preindustrial average global temperature,[619] which is the goal of the Paris Agreement.[620] The average global temperature is expected to rise between 2.9°C and 3.4°C above the preindustrial average global temperature if the Paris Agreement parties actually comply with their NDCs,[621] and up to 4°C above the preindustrial average global temperature if they simply carry on business as usual.[622] Even if the average global temperature rises only 2°C, the world will suffer many more heat waves, crop failures, and coral reef deaths.[623] Furthermore, climate scientists believe that by 2030, we may reach a tipping point, which, again means that "self-perpetuating processes may then make reversal of a continually warming world impossible."[624]

CO_2 emissions around the world have risen steadily since approximately 1850, with the exception of slight, temporary reductions following the global economic crisis in 2008 and the COVID-19 global pandemic in 2020.[625] Furthermore, today the United States is the

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613 *Id.*

614 Paris Agreement, *supra* note 74.

615 Framework Convention on Climate Change, *supra* note 105.

616 Paris Agreement, *supra* note 74.

617 *Id.*

618 Leahy, *supra* note 83; Akpan, *supra* note 83.

619 Roberts, *supra* note 85; Harvey, *supra* note 85.

620 Paris Agreement, *supra* note 74.

621 *National Climate Action*, *supra* note 86; Saran, *supra* note 87; Cornwall, *supra* note 87.

622 *National Climate Action*, *supra* note 86; Singer et al., *supra* note 86.

623 Richard Hodgkins, *COP26: Climate Scientists Explain What It Is and Why It Matters*, WORLD ECON. F. (Nov. 1, 2021), https://www.weforum.org/agenda/2021/11/cop-26-climate-change-scientists-what-it-is-why-it-matters [https://perma.cc/RYE6-DRJC].

624 Wright, *supra* note 88, at 181; *see also* Leahy, *supra* note 83; Hotz & Puko, *supra* note 33; *Causes of Climate Change*, *supra* note 33.

625 *See, e.g.*, Rebecca Lindsey, *Climate Change: Atmospheric Carbon Dioxide*, CLIMATE.GOV (May 12, 2023), https://www.climate.gov/news-features/understanding

second largest emitter of greenhouse gases (behind China), and "it has cumulatively produced more CO_2 . . . than any other nation. Its citizens have carbon footprints that are roughly three times . . . the global average."[626] As discussed above, every U.S. President since John F. Kennedy has known that global warming is occurring and has known that the primary cause of global warming is the burning of fossil fuels.[627] Yet, in the face of the fossil fuel industry's relentless efforts to deny responsibility for global warming, neither the executive branch nor Congress has imposed a carbon tax on the fossil fuel industry, imposed a limit on the industry's greenhouse gas emissions, or otherwise directly regulated the fossil fuel industry.[628] In addition, neither U.S. government branch has reduced the very lucrative subsidies that it provides to the fossil fuel industry[629] or held the fossil fuel industry responsible for causing global warming.[630]

No matter the seriousness or complexity of global warming, the federal courts cannot shirk their duty to declare whether the U.S. government, through its actions and omissions, is violating individuals' rights, most particularly, their rights to life, liberty, and property under the Fifth Amendment, by incorrectly holding that plaintiffs do not possess standing to pursue such a case against the U.S. government. "One's rights to life, liberty, and property . . . and other fundamental rights may not be submitted to a vote; they depend on the outcome of no elections,"[631] contrary to the Ninth Circuit's suggestion in *Juliana*.[632] Rather, individuals are entitled to have a court declare and safeguard their U.S. constitutional rights.[633] The judicial branch must

-climate/climate-change-atmospheric-carbon-dioxide [https://perma.cc/5HGV-44X2]; Jeff Tollefson, *COVID Curbed Carbon Emissions in 2020—but Not by Much*, NATURE (Jan. 15, 2021), https://www.nature.com/articles/d41586-021-00090-3 [https://perma.cc/4LDL-XQSY] (stating that CO_2 emissions dipped but only slightly during the COVID-19 global pandemic); Stephen Pincock, *Financial Crisis Causes Dip in CO_2 Levels*, ABC SCI. (Nov. 22, 2010), https://www.abc.net.au/science/articles/2010/11/22/3071534.htm [https://perma.cc/8K39-UBDK] (stating that carbon dioxide emissions decreased slightly following the 2008 mortgage crisis and global economic collapse).

626 Gabbatiss, *supra* note 397.

627 *See, e.g.*, Hulac, *supra* note 95.

628 *See supra* text accompanying notes 96–148.

629 *See supra* text accompanying notes 321–30.

630 *See supra* text accompanying notes 96–148.

631 W. Va. State Bd. of Educ. v. Barnette, 319 U.S. 624, 638 (1943).

632 *Juliana II*, 947 F.3d 1159, 1175 (9th Cir. 2020).

633 Marbury v. Madison, 5 U.S. 137, 177 (1803); THE FEDERALIST NO. 78, at 442 (Alexander Hamilton) (Fall River Press 2021).

play its assigned role under the Constitution and stand up to the executive branch and Congress before it is too late for all of humanity.