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ARTICLES

STANDING AND GLOBAL WARMING: IS INJURY TO ALL INJURY TO NONE?

By Bradford C. Mank*

Since global warming potentially affects everyone in the world, does any individual have standing to sue the United States Environmental Protection Agency (EPA) or other federal agencies to force them to address climate change issues? Suits addressing global warming raise difficult standing questions because some United States Supreme Court decisions have stated or implied that courts should not allow standing for plaintiffs who file suits alleging general injuries to the public at large because the political branches of government— Congress and the executive branch—are better equipped to resolve such issues. There is a better argument, however, for courts to recognize standing for plaintiffs who suffer "concrete" mass injuries, including any physical harms that are more likely than not caused by global warming. Under the National Environmental Policy Act of 1969 (NEPA), courts should use a "reasonable possibility" standard to determine whether a federal agency must discuss the possible impact of its actions on global warming. In 2003, EPA concluded that the Clean Air Act does not give the agency authority to regulate carbon dioxide, although several states are challenging that conclusion. Even if EPA cannot regulate carbon dioxide directly, there is a strong argument that the agency must consider carbon dioxide emissions when new power plants apply for a permit under the new source review process. Under

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the Administrative Procedure Act and general standing principles, a plaintiff who suffers small, but tangible injuries should have standing under the Clean Air Act.

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I. Introduction

There is growing scientific evidence that human activities producing greenhouse gases (GHGs),¹ most notably carbon dioxide (CO₂) from burning fossil fuels, are causing global warming both in the United States and throughout the world.² There is evidence that global warming has already caused the average global sea level to rise between four and eight inches during the last 100 years and that the seas are now rising at one tenth of an inch per year.³ Many scientists believe that global warming will cause serious environmental and human health impacts if the world continues to burn large quantities of fossil fuels, increasing GHG levels.⁴

¹ The United Nations Framework Convention on Climate Change defines greenhouse gases as "those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation," including CO₂, methane, and nitrous oxide. United Nations Framework Convention on Climate Change, May 9, 1992, S TREATY DOC. NO. 102-38, 1771 U.N.T.S. 107, 31 I.L.M. 849 (1992) (entered into force as law March 1994) [hereinafter Framework Convention].

² Working Group I, Intergovernmental Panel on Climate Change (IPCC), Climate Change 2001: The Scientific Basis 61 (2001) [hereinafter Climate Change 2001: The Scientific Basis] ("In the light of new evidence and taking into account the remaining uncertainties, most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations."), available at

http://www.grida.no/climate/ipcc_tar/wg1/index.htm.

³ Id. at 4 (reporting that average global sea level rose between 0.1 and 0.2 meters (3.9 and 7.8 inches) during the 20th century).

⁴ Working Group II, Intergovernmental Panel on Climate Change, Climate Change

The United States is a major contributor of GHGs, especially from coalburning power plants.⁵ In 1998, the United States produced approximately 24 percent of the world's emissions of CO₂, more than any other country.⁶ The Energy Information Administration (EIA) estimates that between 1990 and 2001, the United States' GHG emissions grew by 12 percent, with between 81 and 84 percent of the total U.S. GHG emissions as CO₂.⁷

Nevertheless, because coal remains cheaper than other sources of energy, the Bush Administration has rejected any mandatory reductions in GHGs and has instead supported further research and voluntary efforts at promoting energy efficiency.⁸ The United States has refused to sign the 1997 Kyoto Protocol, which requires developed countries to reduce GHG emissions five to eight percent below their 1990 levels by 2008–2012.⁹ No federal statute explicitly requires reductions in GHGs by either federal agencies or private industry, ¹⁰ although there is significant encouragement of voluntary private sector reductions and further research.¹¹ Even assuming

2001: IMPACTS, ADAPTATION, AND VULNERABILITY 4-5, 11 (2001) [hereinafter CLIMATE CHANGE 2001: IMPACTS, ADAPTATION, AND VULNERABILITY] (reporting "an increase in the number of people exposed to vector-borne (e.g., malaria) and water-borne diseases (e.g., cholera)," and the "potential for significant disruption of ecosystems under climate change"), available at http://www.grida.no/climate/ipcc_tar/wg2/index.htm.

- ⁵ See Energy Info. Admin., Emissions of Greenhouse Gases in the United States 2001, at 28–29 (showing that CO₂ emissions from burning coal are rivaled only by CO₂ emissions from transportation-related fossil fuel burning), available at http://www.eia.doe.gov/oiaf/1605/gg02rpt/pdf/057301.pdf.
- ⁶ The American share is projected by the United States Environmental Protection Agency (EPA) to diminish slowly to 21% in 2020. See U.S. Envtl. Prot. Agency, Global Warming—Emissions: Projections, at http://yosemite.epa.gov/oar/globalwarming.nsf/content/Emissions InternationalProjections.html (last visited Feb. 20, 2005) (presenting chart with global carbon emissions for several countries in 1998 and second chart with estimated emissions for same countries in 2020).
- ⁷ In 1990, U.S. GHG emissions were 6169.2 million metric tons carbon dioxide equivalent (mmtcde), with CO₂ alone representing 5002.8 mmtcde or 81% of the total. In 2001, total U.S. GHGs were 6905.9 mmtcde, with CO₂ representing 5788.5 mmtcde or 84% of the total. Energy Info. Admin., Annual Energy Review 2002, at 320 tbl.12.1, available at http://tonto.eia.doe.gov/FTPROOT/multifuel/038402.pdf.
- ⁸ See U.S. Dep't of State, *Fact Sheet: U.S. Climate Change Policy* (Sept. 22, 2004), *at* http://www.state.gov/g/oes/rls/fs/2004/36425.htm (last visited Feb. 20, 2005) (discussing federal climate change policies and measures).
- ⁹ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, art. 3.1, 37 I.L.M. 22, 33 (1998) (entered into force Feb. 16, 2005) [hereinafter Kyoto Protocol], (requiring industrialized nations in Annex I to reduce emissions by at least 5% below 1990 levels); see also id. Annex B, 37 I.L.M. at 42 (listing reduction commitments of Annex I countries as percentage reductions from the base year 1990); DAVID HUNTER ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 626–30 (2d ed. 2002) (discussing Kyoto Protocol).
- 10 See J. Kevin Healy & Jeffrey M. Tapick, Climate Change: It's Not Just a Policy Issue for Corporate Counsel—It's a Legal Problem, 29 COLUM. J. ENVIL. L. 89, 96 (2004) ("At present, the federal government does not have a mandatory regulatory regime for reducing GHG emissions. In August 2003, the EPA issued a memorandum stating that it did not have the authority under the Clean Air Act to regulate CO_2 or other GHGs."). This Article will focus on litigation seeking to force EPA to regulate GHGs.
- ¹¹ See U.S. DEP'T OF STATE, U.S. CLIMATE ACTION REPORT 2002, at 50–61 [hereinafter CLIMATE ACTION REPORT 2002] (discussing federal policies encouraging private sector to reduce GHGs);

private industry voluntarily adopts many cost-effective strategies to reduce GHGs, the EIA projects that by 2025, U.S. CO₂ emissions will reach 8,142 million metric tons (mmts), which is 63 percent higher than the approximately 4,988 mmts in 1990.¹²

Growing scientific evidence is forcing the Bush Administration's scientific experts to concede that increasing CO, levels from fossil fuels is the most important cause of global warming. In its Climate Action Report 2002 to the United Nations, the Bush Administration grudgingly admitted the risks from global warming and projected that total U.S. GHG emissions would rise about 43 percent between 2000 and 2020 if current policies remain in place.¹³ Most recently, in July 2004 the Bush Administration submitted to Congress a report on the U.S. Climate Change Science Program. The report, which was accompanied by a letter signed by the Secretaries of Commerce and Energy as well as the Administration's science advisor, is mandated by the Global Change Research Act of 1990.14 It acknowledged for the first time that increasing levels of carbon dioxide from human sources is the most likely explanation for global warming since 1950. 15 The Bush Administration, however, has suggested that it will not change its approach of delaying any mandatory actions to reduce GHGs until there is more conclusive research about global warming. 16

id. at 62–69 (discussing private sector initiatives, some in partnership with federal government, to reduce GHGs). Several states have developed voluntary or mandatory initiatives to reduce GHGs. See id. at 61–62 (summarizing state and local efforts to reduce GHGs); id. at 70–80 (projecting increased U.S. GHG emissions by 2020); Healy & Tapick, supra note 10, at 98–100 (discussing voluntary and mandatory GHG programs in several states and cities); Laura Kosloff & Mark Trexler, State Climate Change Initiatives: Think Locally, Act Globally, 18 NAT. RES. & ENV'T 46, 47–50 (2004) (same), available at

http://www.climateservices.com/pdfs/NR&E_jan2004_as_published.pdf; Robert B. McKinstry, Jr., Laboratories for Local Solutions for Global Problems: State, Local and Private Leadership in Developing Strategies to Mitigate the Causes and Effects of Climate Change, 12 PENN. St. ENVTL. L. Rev. 15, 26–58, 64–73 (2004) (same).

- ¹² ENERGY INFO. ADMIN., ANNUAL ENERGY OUTLOOK 2004 WITH PROJECTIONS TO 2025, at 103 fig.115, available at http://www.eia.doe.gov/oiaf/archive/aeo04/pdf/trend_5.pdf.
- ¹³ CLIMATE ACTION REPORT 2002, *supra* note 11, at 2–7 (summarizing report); *id.* at 70–80 (projecting increased U.S. GHG emissions by 2020); Andrew C. Revkin, *White House Shifts Its Focus on Climate*, N.Y. TIMES, Aug. 26, 2004, at A18 (reporting that President Bush distanced himself from the Climate Action Report 2002 by stating that the report was "put out by the bureaucracy" and suggesting that the report did not reflect the views of his Administration).
- ¹⁴ Pub. L. No. 101-606, 104 Stat. 3096 (1990) (codified at 15 U.S.C. §§ 2921, 2931–2938, 2951–2953, 2961 (2000)).
- ¹⁵ CLIMATE CHANGE SCIENCE PROGRAM, OUR CHANGING PLANET: THE U.S. CLIMATE CHANGE SCIENCE PROGRAM FOR FISCAL YEARS 2004 AND 2005, at 47 (2004), available at http://www.usgcrp.gov/ usgcrp/Library/ocp2004-5/ocp2004-5.pdf; see also Letter of Transmittal from Secretary of Commerce Donald L. Evans, Secretary of Energy Spencer Abraham, and Director of the Office of Science and Technology Policy John H. Marburger III, Ph.D. to Members of Congress (July 2004), available at http://www.usgcrp.gov/usgcrp/Library/ocp2004-5/ocp2004-5-letter.htm; Revkin, supra note 13, at A18. See generally U.S. Climate Change Science Program, at http://www.climatescience.gov (last visited Feb. 20, 2005).
- ¹⁶ See supra note 8 and accompanying text. When reporters asked him whether the *Climate Change Science Program for Fiscal Years 2004 and 2005* represented a change in his Administration's policies toward global warming, President Bush appeared to be unfamiliar with the report and replied, "Ah, we did? I don't think so." David E. Sanger & Elisabeth

Since global warming potentially affects everyone in the world, does any individual have standing¹⁷ to sue the U.S. Environmental Protection Agency (EPA) or other federal agencies to force them to address climate change issues? Suits addressing global warming raise difficult standing questions because some Supreme Court decisions have stated or implied that courts should not allow standing for plaintiffs who file suits alleging general injuries to the public at large because the political branches of government—Congress and the executive branch—are better equipped to resolve such issues. ¹⁸ Other decisions, however, have allowed suits involving "concrete" mass injuries. ¹⁹ Suits involving global warming raise complex causation and redressability issues because any single polluter is likely to produce only a tiny proportion of the GHGs, and, thus, any judicial remedy is likely to have a small and perhaps negligible impact on solving this global problem.

A concurring opinion in a recent decision involving chemicals that cause global destruction of stratospheric ozone addressed the difficult issue of whether a plaintiff may have standing to sue those who contribute in small ways to global pollution problems. In *Covington v. Jefferson County*,²⁰ the Ninth Circuit held that the plaintiffs, property owners who lived across the street from a county landfill, had standing to bring citizen suits²¹ under both the Clean Air Act (CAA)²² and the Resource Conservation and Recovery Act (RCRA)²³ for *local* injuries allegedly caused by the defendants, a county and a district health department, from the improper disposal of ozone destroying chemicals at a landfill owned by Jefferson County and operated by the district health department.²⁴ In a concurring opinion, Judge Gould

Bumiller, Bush Dismisses Idea That Kerry Lied on Vietnam, N.Y. TIMES, Aug. 27, 2004, at A1. President Bush's Press Secretary, Scott McClellan, later clarified his answer by explaining that the Bush Administration was not changing its position on global warming, and that its policies would be informed by continuing research at the National Academy of Sciences. Id.

- 18 See infra notes 124-29 and accompanying text.
- ¹⁹ See infra notes 130-33, 164-67 and accompanying text.
- ²⁰ 358 F.3d 626 (9th Cir. 2004).
- 21 Id. at 640-41.

¹⁷ To sue in an Article III federal court, a plaintiff must show 1) an "injury in fact" that is "concrete and particularized" and "actual and imminent" as opposed to being "hypothetical" or "conjectural," 2) "a causal connection between the injury and the conduct complained of," and 3) a likelihood that judicial intervention may redress the injury. Lujan v. Defenders of Wildlife (*Defenders*), 504 U.S. 555, 560–61 (1992) (internal quotations omitted).

²² Clean Air Act, 42 U.S.C. §§ 7401–7671q (2000). CAA citizen suits are authorized by CAA § 304(a)(1), 42 U.S.C. § 7604(a)(1) (generally authorizing citizen suits against violators of the CAA) and CAA § 304(f)(3), 42 U.S.C. § 7604(f)(3) (explicitly authorizing citizen suits against violators of the CAA's subchapter VI ozone protection requirements). CAA's subchapter VI, which provides for stratospheric ozone protection through regulation, reduction, and elimination of substances destroying such ozone, includes CAA §§ 601–618, 42 U.S.C. §§ 7671–7671q.

²³ Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901–6992k (2000) (amending Solid Waste Disposal Act, Pub. L. No. 89-272, 79 Stat. 992). RCRA citizen suits are authorized by RCRA § 7002, 42 U.S.C. § 6972.

²⁴ Covington, 358 F.3d at 640–41 (discussing CAA's requirements for disposal of CFCs); *id.* at 647–49 (discussing RCRA's prohibition against the placement of bulk or noncontainerized liquid hazardous waste in landfills).

concluded that the plaintiffs had standing to sue based on the global impacts on stratospheric ozone resulting from the defendants' alleged mishandling of CFCs.²⁵ Reviewing standing precedent, he observed that some courts, especially in taxpayer suits, had suggested that a plaintiff may not assert standing if an alleged injury harms all persons equally, or in other words, "that injury to all is injury to none." On the whole, however, Judge Gould determined that the Supreme Court's most recent standing cases have allowed a plaintiff to achieve standing resulting from general injury if the injury to the plaintiff is sufficiently concrete.²⁷ Judge Gould concluded that the risk to the plaintiffs of skin cancer, cataracts, and suppressed immune systems was sufficiently concrete to justify Article III standing even though the defendants' allegedly improper treatment of CFCs only contributed a small amount to a global problem.²⁸ Although skeptical that allowing standing for global pollution injuries would trigger an avalanche of litigation, even Judge Gould acknowledged that if so many global pollution suits were filed that it became burdensome for courts to decide them all, a court might for prudential reasons limit suits alleging such harms to cases where the plaintiffs, like the Covingtons, have suffered relatively direct injuries.²⁹

Judge Gould's concurring opinion has important implications for whether plaintiffs have standing to sue for another type of global pollution problem that may prove to be even more important than ozone destruction—global warming. This Article concludes that at least some plaintiffs with concrete injuries, such as Alaska Natives, have standing to file global warming suits under either the National Environmental Policy Act of 1969 (NEPA)³⁰ or the CAA.³¹ Today, the strongest case for standing by climate change plaintiffs is under NEPA. To date, the few federal court decisions that have addressed global warming and standing have involved NEPA, which is a procedural statute that requires federal agencies undertaking "major" federal projects to assess their environmental impacts.³² There is currently a split in the circuits regarding the test for

²⁵ *Id.* at 653 (Gould, J., concurring) (observing that Congress specifically authorized citizen suits for release of ozone destroying substances).

²⁶ Under some precedents, the existence of a widely shared injury may be thought to compel a conclusion that the "injury was not 'concrete and particularized.' This theory may be summed, at least by detractors, as 'injury to all is injury to none' for standing purposes." *Id.* 650–51 (Gould, J., concurring) (internal citations omitted).

²⁷ If the injury is not concrete, there is no injury in fact even if the injury is particularized; and if the injury is "concrete and particularized, there is injury in fact even if the injury is widespread. Concreteness of injury, so long as it is particularized, appears to be the touchstone for the injury in fact element of standing." *Id.* at 651–52 (Gould, J., concurring) (footnote omitted); *see also infra* Part IV.B.

²⁸ Covington, 358 F.3d at 652 (Gould, J., concurring).

²⁹ See Id. at 655 (Gould, J., concurring) (acknowledging that a court may limit standing for prudential reasons, but arguing that the Covingtons' injuries were concrete enough to justify standing).

³⁰ National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4370f (2000).

³¹ See infra Part VI.D.2.

³² Matthew William Nelson, Comment, *NEPA and Standing: Halting the Spread of "Slash-and-Burn" Jurisprudence*, 31 U.C. DAVIS L. REV. 253, 255–56 (1997); see also infra notes 239–45, 389–91 and accompanying text (discussing procedural nature and liberal standing test for

standing under NEPA.³³ Because it is a purely procedural statute,³⁴ a number of courts apply a more relaxed approach to standing.³⁵ Building upon precedent in the Ninth and Tenth Circuits, this Article proposes a liberal approach to standing in NEPA cases that could allow at least some plaintiffs to raise global warming issues under the statute.³⁶

No court has yet addressed whether plaintiffs have standing under the CAA to raise climate change issues.³⁷ In deciding whether a plaintiff has standing under the CAA to sue concerning global warming, a crucial issue is whether EPA has the authority to regulate GHGs under the CAA. Whether a plaintiff has standing to sue depends in part on whether courts decide that Congress intended a statute to give an agency the authority to regulate certain actions.³⁸

During the Clinton Administration, two different EPA general counsel and EPA Administrator Carol Browner suggested that the agency had some authority to regulate $\mathrm{CO_2}$ or other GHGs under the CAA even if the United States did not ratify the Kyoto Protocol, although EPA took no actual action at that time to regulate GHGs.³⁹ In 2003, however, the Bush Administration EPA concluded that the agency has no authority to regulate $\mathrm{CO_2}$ or other GHGs.⁴⁰ In October 2003, 12 states, with Massachusetts as lead petitioner, joined 14 environmental groups and five governmental entities in filing eight separate but now consolidated petitions⁴¹ in the District of Columbia (D.C.)

NEPA).

³³ See Nelson, supra note 32, at 257, 270–76, 282 (describing Circuit split); see also infra Part

³⁴ See Nelson, supra note 32, at 256; see also infra note 322 and accompanying text.

³⁵ See infra Part V.D.

³⁶ See infra Part V.E.

³⁷ There are several CAA suits involving global warming that are currently being litigated, although it is not clear to what extent they will address standing issues. *See infra* notes 41–46 and accompanying text.

³⁸ See infra notes Part VI.D.1.

 $^{^{39}}$ See Arnold W. Reitze, Jr., Global Warming, 31 Envtl. L. Rep. (Envtl. L. Inst.) 10,253, 10,257 n.82, 10,258–59 (2001) (discussing memorandum and congressional testimony by two Clintonera EPA general counsel, Jonathan Z. Cannon and his successor Gary S. Guzy, indicating that EPA has the authority to regulate $\mathrm{CO_2}$ under the CAA); see also infra notes 448–52 and accompanying text.

⁴⁰ See Control of Emissions From New Highway Vehicles and Engines; 68 Fed. Reg. 52,922 (Sept. 8, 2003) (denying petition to regulate CO₂ because EPA does not have the authority under the CAA to regulate it); Memorandum from EPA General Counsel Robert E. Fabricant to Acting EPA Administrator Marianne L. Horinko, EPA's Authority to Impose Mandatory Controls to Address Global Climate Change Under the Clean Air Act (August 28, 2003) [hereinafter Fabricant Memorandum] (concluding EPA does not have authority under CAA to regulate CO₂), available at http://www.epa.gov/airlinks/co2_general_counsel_opinion.pdf; see also infra notes 458–77 and accompanying text.

⁴¹ Petitions 03-1361 through 03-1365 challenge EPA's September 8, 2003 denial of a petition to regulate CO₂ from vehicle emissions. See Certificate As To Parties, Rulings, and Related Cases, Brief for Petitioners in Consolidated Case, Massachusetts v. EPA, Nos. 03-1361 to 03-1368 (D.C. Cir. June 22, 2004) [hereinafter Brief for Petitioners], available at http://www.earthjustice.org/news/documents/6-04/globalwarmingbrief.pdf; Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922. Petitions 03-1365 through 03-1368 challenge the Fabricant Memorandum. Brief for Petitioners, supra, at ii. Petitioners in 03-1361 and 03-1365 include the Commonwealth of Massachusetts; the States of

Circuit challenging EPA's denial of a petition to regulate GHGs from vehicle emissions⁴² and an EPA general counsel memorandum concluding that EPA lacks authority under the CAA to regulate GHGs.⁴³ The D.C. Circuit has scheduled oral argument for April 8, 2005.⁴⁴

Additionally, in July 2004, eight states and New York City filed a public nuisance suit in federal district court in Manhattan against five large utilities, which operate 174 power plants that emit 646 million tons of CO₂—ten percent of the national total—demanding that they reduce CO₂ emissions by a specified percentage each year for at least ten years.⁴⁵ To establish that

Connecticut, Illinois, Maine, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, and Washington; the American Samoa Government; and the District of Columbia. The Petitioner in 03-1362 and 03-1366 is the State of California. Petitioners in 03-1363 and 03-1367 include the International Center for Technology Assessment and 13 environmental groups. Petitioners in 03-1364 and 03-1368 include the City of New York and the Mayor and City Council of Baltimore. Brief for Petitioners, supra, at i; see also Questions & Answers on the Legal Challenges Filed by the Attorneys General of American Samoa, Connecticut, Illinois, Maine, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont and Washington, at http://www.ago.state.ma.us/sp.cfm?pageid=1617 (last visited Feb. 20, 2005) (discussing lawsuit and plaintiffs); Peter Glaser, 'Greenhouse Gas' Debate Enters the Courthouse, 24 Andrews Envil. Litig. Rep. 11 (Dec. 5, 2003) (discussing the cases), available at http://www.wlf.org/upload/glaserlol_wt_11_13_03.pdf; Press Release, Office of New York State Attorney General Eliot Spitzer, States, Cities, Environmental Groups Sue Bush Administration on Global Warming, Challenge EPA's Refusal to Reduce Greenhouse Gas Pollution (Oct. 23, 2003) (same), http://www.oag.state.ny.us/press/2003/oct/oct23a_03.html.

42 One petition states.

Pursuant to Section 307(b) of the Clean Air Act, 42 U.S.C. §§ 7607(b), the Administrative Procedure Act, 5 U.S.C. §§ 701–06, and Rule 15(a) of the Federal Rules of Appellate Procedure, the petitioners listed above hereby petition the Court to review a final action of the United States Environmental Protection Agency ("EPA"). That final agency action, which was issued on August 28, 2003, and subsequently published at 68 Fed. Reg. 52922 (Sept. 8, 2003), denied a petition for rulemaking that had sought the regulation of emissions of greenhouse gases (including carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons) from new motor vehicles and engines pursuant to Section 202 of the Clean Air Act, 42 U.S.C. § 7521.

Amended Petition at 2, Massachusetts v. EPA, No. 03-1361 (D.C. Cir. Oct. 30, 2003), available at http://www.ago.state.ma.us/sp.cfm?pageid=1614; see Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922.

43 Another petition states,

Pursuant to Section 307(b) of the Clean Air Act, 42 U.S.C. §§ 7607(b), the Administrative Procedure Act, 5 U.S.C. §§ 701–06, and Rule 15(a) of the Federal Rules of Appellate Procedure, the petitioners listed above hereby petition the Court to review a final action of the United States Environmental Protection Agency ("EPA"). That final agency action was issued by EPA on August 28, 2003, in the form of a memorandum from EPA General Counsel Robert E. Fabricant to EPA Acting Administrator Marianne L. Horinko.

Amended Petition at 2, Massachusetts v. EPA, No. 03-1365 (D.C. Cir. Oct.30, 2003), available at http://www.ago.state.ma.us/sp.cfm?pageid=1615; see Fabricant Memorandum, supra note 40.

⁴⁴ Brief for Petitioners, *supra* note 41, at coverpage, 1.

⁴⁵ The states are California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont, and Wisconsin; the utilities are American Electric Power, Cinergy, the Southern Company, the Tennessee Valley Authority, and Xcel Energy. The suit is based on either the federal common law of nuisance or, in the alternative, state public nuisance law. Complaint ¶¶ 1, 6, Connecticut v. Am. Elec. Power Co., No. 04-CV-05669, 2004 WL 1685122 (S.D.N.Y. July

CO₂ emissions are causing substantial harms to the citizens of the eight states and New York City, the complaint alleges that global warming is already causing significant increases in temperature and reduced snow pack, especially in the northern continental 48 states, that these harms will significantly worsen in the near future, and that the defendants can partially minimize these harms by reducing their CO₂ emissions by a specified percentage for at least a decade.⁴⁶ In both suits, the states and other plaintiffs will have to meet standing requirements.⁴⁷

The utility industry has argued that the suit is an inappropriate way to solve a global problem that requires international efforts.⁴⁸ Yet, perhaps not coincidently, on August 31, 2004, co-defendant American Electric Power (AEP), the largest utility in the United States, issued a massive 120-page report detailing its plans to spend \$3.5 billion by 2010 and \$5 billion by 2020 to reduce GHG emissions through the use of alternative energy sources such as wind power and more efficient coal-burning technology.⁴⁹ For example, by 2010, AEP plans to build one or more advanced 1,000-megawatt commercial coal-burning plants at a cost of \$1.3 to \$1.6 billion each. The plants will use integrated gasification combined cycle (IGCC) technology, which can remove CO₂, mercury, and 99 percent of sulfur from coal in the

^{21, 2004),} available at http://www.ag.ca.gov/newsalerts/2004/04–076.pdf; see also Mark Clayton, In Hot Pursuit of Polluters, Christian Sci. Monitor, Aug. 19, 2004, at 15, available at http://www.csmonitor.com/2004/0819/p15s02-sten.htm; Pamela Najor et al., Eight States File Public Nuisance Lawsuit Against Utilities for Carbon Dioxide Gases, 35 Env't Rep. (BNA) 1565 (July 23, 2004); Leonard Post, Power Plants Feel the Heat: Eight States and NYC Sue Power Companies over Global Warming, 26 NAT'L L.J., Aug. 2, 2004, at 4. The Complaint does not specify the amount of reduction in CO₂ emissions sought by the plaintiffs, but attorneys for the plaintiffs have told reporters that they seek at least 3% reductions each year. Julia Preston & Andrew C. Revkin, City Joins Suit Against 5 Power Companies, N.Y. Times, July 22, 2004, at B2.

⁴⁶ See Complaint, Connecticut v. Am. Elec. Power Co, supra note 45, at ¶¶ 3-4, 79-150 (presenting factual allegations); Clayton, supra note 45, at 15 (discussing evidence of harms from global warming discussed in public nuisance complaint by eight states and New York City).

⁴⁷ See generally Defenders, 504 U.S. 555, 560-61 (1992); supra note 17 and accompanying text.

⁴⁸ Najor et al., *supra* note 45, at 1565 (detailing utility industry leaders' criticisms of the public nuisance suit and arguments that policy makers need to address global warming by encouraging development of technologies that can reduce greenhouse gases and ensuring their use on a global basis); see also Clayton, *supra* note 45, at 15 ("'Climate change is a global issue that can't be addressed by any individual company or small group of companies,' says Melissa McHenry, a spokeswoman for [American Electric Power Co.]. 'Addressing climate change requires coordinated, meaningful international action. We believe the claims are without merit."').

⁴⁹ News Release, American Electric Power, AEP Releases Emissions Assessment Report of 2004) Board Subcommittee (Aug. 31, [hereinafter **AEP** News Releasel, http://www.aep.com/newsroom/newsreleases/default.asp?dbcommand=displayrelease&ID=1144; see American Electric Power, An Assessment of AEP's Actions to Mitigate the Economic IMPACTS OF EMISSIONS POLICIES 9-11 (2004) [hereinafter AEP REPORT], available at http://www.aep.com/environmental/performance/emissionsassessment/default.htm; see also Cinergy Report Outlines Plan to Reduce Greenhouse Gas, Air Pollution Emissions, 35 Env't Rep. (BNA) 2526 (Dec. 10, 2004) (reporting that Cinergy Corp., a Cincinnati-based electric utility, will reduce its GHG emissions between 2010 and 2012 by 5% below 2000 levels-to 70 million tons of CO, equivalent per year for 2010–2012 compared with 74 million tons per year in 2000).

process of converting it to synthetic gas ("syngas"), while improving the energy operational efficiency of a coal plant from 33 to 40 percent.⁵⁰

Even if it does not have direct authority to regulate carbon dioxide, EPA may have indirect authority to consider otherwise unregulated pollutants such as GHGs when it decides whether to approve permits for new power plants. A recent article by Gregory Foote, Assistant General Counsel in EPA's Air and Radiation Law Office, presenting his personal views, argues that the CAA's new source review (NSR) process requires EPA to consider both regulated and unregulated pollutants—such as carbon dioxide—in determining what is the best available control technology for the plant.⁵¹ The Foote article does not address who would have standing to bring such a challenge. Assuming that the Foote article is correct that EPA has a duty at least to consider unregulated pollutants, including GHGs, pursuant to the NSR permit review process, this Article will make the case that at least some plaintiffs would have standing to argue that EPA must consider technology that would reduce unregulated pollutants such as CO₀.

This Article concludes that at least some plaintiffs have standing under either NEPA or the CAA to challenge federal agency decisions that affect the release of GHGs. Nevertheless, the case for standing under present statutes is somewhat uncertain. Congress could explicitly authorize climate change suits by enacting a statute establishing both a regulatory regime and citizen enforcement mechanism similar to the existing scheme for CFCs. Because research increasingly demonstrates that GHGs are a primary cause of climate change,⁵² it is time for Congress to take action. As it has for other environmental citizen suits, Congress could define when a citizen may sue

⁵⁰ See AEP REPORT, supra note 49, at 52-57 (discussing AEP's commitment to IGCC deployment); Jeffrey Ball & Rebecca Smith, AEP Plans Biggest Power Plant Using Clean-Coal Technology, WALL St. J., Aug. 31, 2004, at A2 (citing company estimates of the cost of new IGCC plants). An IGCC plant would gasify coal and process it to remove acidic and particulate matter, including 90-95% of all metals including mercury. Gregory B. Foote, Considering Alternatives: The Case for Limiting CO, Emissions from New Power Plants Through New Source Review, 34 Envtl. L. Rep. (Envtl. L. Inst.) 10,642, 10,659-60 (July 2004) (discussing IGCC technology); Yekaterina Korostash, EPA'S New Regulatory Policy: Two Steps Back, 5 N.C. J.L. & TECH. 295, 325 (2004) (stating IGCC technology can remove 99% of sulfur, "while improving operational efficiency from thirty-three to forty percent."). Similar to burning natural gas, the IGCC plant would burn the "syngas" in a combustion turbine. Foote, supra, at 10,659-60; Korostash, supra, at 325. Technologies already exist that could separate CO₂ from the remaining gas, and then a utility could store or "sequester" the CO2, perhaps in an abandoned mine shaft or oil well. Foote, supra, at 10,660; Korostash, supra, at 325. Two experimental IGCC plants are in operation, "Tampa Electric's plant in Florida and Psi Energy's 260 megawatt Wabash River Generating Station at Terre Haute in Indiana, a 1950s power plant which was retrofitted with a gasification process at a cost of \$430 [million]," but the cost is too high for high-output commercial operation. Korostash, supra, at 325 n.195; Coal: IGCC Leads Clean Technologies, But Will It Pass Utility Muster?, GREENWIRE, Aug. 11, 2004 (discussing two experimental IGCC plants in Indiana and Florida). Other utilities—Cinergy, Michigan Public Power Agency, and FirstEnergy, jointly with Consol Energy Inc.—are seriously considering building IGCC plants, especially if the federal government provides financial incentives. Utilities Favor IGCC, but Not Those Who Need Capacity Now or Want to Save \$, PLATTS COAL OUTLOOK, Sept. 6, 2004, at 1.

⁵¹ Foote, *supra* note 50, at 10,643, 10,662–68; *see infra* Part VI.C.

⁵² See infra notes 61-89 and accompanying text (noting multiple studies documenting the role of GHGs in climate change since the 1850s).

either EPA or private industry.⁵³ If in the future Congress decides to regulate sources of GHGs and authorizes citizen suits against EPA or individual violators, it is likely that the Supreme Court would recognize that such suits meet standing requirements even if a plaintiff suffers injuries that are similar to the injuries of many others.⁵⁴ Congress has considerable discretion in defining which types of injuries should give rise to standing, although there are some constitutional limits, including separation-of-powers concerns, which are discussed in Parts III and IV.⁵⁵

II. THE GROWING EVIDENCE FOR GLOBAL WARMING

A. Scientific Evidence

Because extensive discussions of climate change are readily available elsewhere, ⁵⁶ this Article will only briefly summarize the scientific evidence for global warming. In 1896, the Swedish chemist Svante Arrhenius first proposed the theory that carbon emissions from the burning of coal and other fossil fuels could create a "greenhouse effect" by trapping solar heat in the atmosphere, leading to global warming. ⁵⁷ Since the late 19th century, global temperatures have risen approximately 1 degree Fahrenheit (F) (about 0.6 degrees Celsius (C)), with greater increases of about 1.4 degrees F (about 0.8 degrees C) in the Northern latitudes. ⁵⁸ Because global warming reduces ice and snow cover, which previously reflected solar radiation back into space, and increases the amount of bare soil, which absorbs more radiation and heat, the most dramatic increases have occurred in the northern polar areas—increases ranging from 3.6 to 5.4 degrees F (2 to 3 degrees C) in approximately one century. ⁵⁹ Furthermore, polar winter-

⁵³ See infra Part VI.D.1 (discussing prudential standing).

⁵⁴ See Covington, 358 F.3d 626, 655 (9th Cir. 2004) (Gould, J., concurring) (acknowledging that a court may limit standing for prudential reasons, but arguing that the Covingtons' injuries were concrete enough to justify standing); *infra* notes 286–88 and accompanying text.

 $^{^{55}}$ See infra Part III.B.2.d (discussing the interface between Article III and prudential standing requirements).

⁵⁶ See generally Pew Center on Global Climate Change, Global Warming Basics, at http://www.pewclimate.org/global-warming-basics/ (last visited Feb. 20, 2005); United States EPA, Global Warming—Climate, at http://yosemite.epa.gov/oar/globalwarming.nsf/content/climate.html (last visited Feb. 20, 2005); CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, CLIMATE CHANGE 2001: IMPACTS, ADAPTATION, AND VULNERABILITY, supra note 4.

⁵⁷ HUNTER ET AL., supra note 9, at 590; Reitze, supra note 39, at 10,253.

⁵⁸ See CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, at 2-3 (documenting temperature change); HUNTER ET AL., supra note 9, at 593; Ann E. Carlson, Federalism, Preemption, and Greenhouse Gas Emissions, 37 U.C. DAVIS L. REV. 281, 286 (2003); David R. Hodas, State Law Responses to Global Warming: Is it Constitutional to Think Globally and Act Locally, 21 PACE ENVIL. L. REV. 53, 61 (2003) (stating that estimated warming during the last century ranges from 0.7 to 1.4 degrees F).

⁵⁹ See Alister Doyle, First Arctic Thaw Portends Global Warming, REUTERS, May 24, 2004 (reporting that scientists have found more rapid warming in polar areas as snow melts and is replaced by dark, heat-absorbing soil); David A. Grossman, Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation, 28 COLUM. J. ENVIL. L. 1, 12–32 (2003) (same); Bill Sherwonit, Alaskan Meltdown: On the Frontlines of Climate Change, NAT'L PARKS, June 22, 2004,

season temperatures have risen even faster, with increases ranging from 7 to 9 degrees F (3.9 to 5 degrees C) higher in some areas of the Arctic between 1954 and 2004.60

There is evidence that global warming is accelerating, with the most rapid increases occurring since 1976. The decade of the 1990s was the warmest decade since meteorologists began the first systematic effort to keep formal worldwide temperature records in the 1860s, and probably the warmest decade in the last thousand years in the Northern Hemisphere. The year 1998 was the warmest year ever recorded, and the years 2002 and 2003 are tied as the second warmest years.⁶¹

Although many questions about global warming remain, most scientists are convinced that human emissions of greenhouse gases (GHGs) are the primary cause of such warming. Since 1850, human activities have substantially increased GHG concentrations for the three major types of such gases: 1) carbon dioxide ($\rm CO_2$); 2) methane ($\rm CH_4$); and 3) nitrous oxide ($\rm N_2O$). Although both natural and man-made factors can cause fluctuations in GHG levels and, in turn, influence global climate patterns, the evidence strongly suggests that human factors are the most important influence despite some continuing scientific uncertainties about both the causes and the impacts of global warming.

In 1988, the United Nations Environmental Programme and the World Meteorological Organization jointly established the Intergovernmental Panel on Climate Change (IPCC) "to assess scientific, technical and socioeconomic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation," with the goal of producing a new assessment approximately every five years.⁶⁵ IPCC

at 24, available at http://www.npca.org/magazine/2004/summer/globalwarming.asp.

⁶⁰ J.R. Pegg, *The Earth is Melting, Arctic Native Leader Warns*, Env'T NEWS SERVICE, Sept. 16, 2004 (reporting that Arctic Climate Impact Assessment (ACIA), an international team of scientists, has found that in "Alaska and western Canada, the average winter temperatures have increased by as much as 3 to 4 degrees Celsius over the past 60 years"), 2004 WL 63721104; Sherwonit, *supra* note 59, at 24.

⁶¹ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, *supra* note 2, at 2–3; Carlson, *supra* note 58, at 286.

⁶² See CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, at 7–10 (reporting that concentrations of atmospheric greenhouse gases have increased due to human activities and that this increase contributes to warming trends); Carlson, supra note 58, at 286, Grossman, supra note 59, at 2–3, 10–16 (stating that scientific evidence increasingly supports the theory that increasing concentrations of manmade greenhouse gases cause global warming).

⁶³ See CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, at 6–7 (providing graphic representations of the increase in the three major types of greenhouse gases); Hodas, supra note 58, at 60–61; Reitze, supra note 39, at 10,254.

⁶⁴ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, *supra* note 2, at 7–10 (concluding that human factors have greatest impact on climate change, although acknowledging some uncertainties); Carlson, *supra* note 58, at 287 (same); David R. Hodas, *Standing and Climate Change: Can Anyone Complain About the Weather?*, 15 J. LAND USE & ENVTL. L. 451, 452, 456–58 (2000) (same).

⁶⁵ See IPCC, About IPCC, at http://www.ipcc.ch/about/about.htm (last visited Feb. 20, 2005) (describing the IPCC mandate and organizational structure); HUNTER ET AL., supra note 9, at 590; Grossman, supra note 59, at 2.

issued its First Assessment Report of climate change in 1990 and its Second Assessment Report in 1995.66 Each assessment has found stronger evidence that human activities significantly contribute to global warming, and has led to increased international efforts to establish treaties to regulate GHGs.⁶⁷ In 2001, IPCC issued its Third Assessment Report (Report), which concluded that "there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities."68 The Report found that the increasing concentration of CO2 is the single most important factor in this warming. 69 Carbon dioxide is the most abundant of the GHGs and can remain in the atmosphere from decades to centuries. 70 Scientists have found that concentrations of CO₂ in the atmosphere have risen from 280 parts per million (ppm) prior to the start of the Industrial Revolution in approximately 1750, to 360 ppm by 2000.⁷¹ By 2004, the level of CO₂ was between 370 to 380 ppm.⁷² These levels have not been exceeded in at least 420,000 years and may be equal to the highest CO, concentrations for the last 20 million years.73 The Report found that approximately three quarters of the anthropogenic emissions of CO₂ into the atmosphere during the past 20 years result from fossil fuel burning of oil and coal.⁷⁴ Most of the remaining increase in CO, concentrations is caused by human land-use changes,

⁶⁶ See HUNTER ET AL., supra note 9, at 590 (discussing IPCC assessment history).

⁶⁷ *Id.* at 590–91, 593.

⁶⁸ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, *supra* note 2, at 10 ("The warming over the last 50 years due to anthropogenic greenhouse gases can be identified despite uncertainties in forcing due to anthropogenic sulphate aerosol and natural factors (volcanoes and solar irradiance)."). The IPCC's 2001 Third Assessment Report presents far stronger evidence of human influence on global warming than the IPCC's Second Assessment Report in 1995, which found that "the balance of evidence suggests a discernable human influence on global climate." Working Group 1, Intergovernmental Panel on Climate Change, Climate Change 1995: The Science of Climate Change 5 (1996) [hereinafter Climate Change 1995: The Science of Climate Change]; Hunter et al., *supra* note 9, at 593; Grossman, *supra* note 59, at 2.

⁶⁹ See Climate Change 2001: The Scientific Basis, supra note 2, at 39 (noting unprecedented increase in CO₂ concentration over the last century); Hunter et al., supra note 9, at 592–93 (correlating release of CO₂ with burning of fossil fuels and rising temperature over the last century); Grossman, supra note 59, at 2–3 (citing increased CO₂ concentration as largest factor in global warming over the past 50 years).

⁷⁰ HUNTER ET AL., *supra* note 9, at 591–93.

⁷¹ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, *supra* note 2, at 6; J.R. Pegg, *Gore: Hollywood, and Bush, Engage in Climate Change Fiction*, Env't News Service, May 12, 2004 (reporting information provided by Harvard University paleoclimatologist Dan Schrag), http://www.ens-newswire.com/ens/may2004/2004-05-12-11.asp.

⁷² John Carey et al., *Global Warming*, Bus. Week., Aug. 16, 2004, at 60–63 (reporting that 2004 CO₂ levels exceed 370 ppm); Maggie Fox, *Climate Change Experts Despair Over U.S. Attitude*, Reuters, June 15, 2004.

⁷³ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, *supra* note 2, at 7; Carey et al., *supra* note 72, at 62–63 (reporting highest CO₂ levels in 450,000 years); Grossman, *supra* note 59, at 2–3; *see also* Pegg, *supra* note 71.

⁷⁴ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, *supra* note 2, at 7; Grossman, *supra* note 59, at 3; *see also* Pegg, *supra* note 71 (reporting the expert opinion of Harvard University paleoclimatologist Dan Schrag that the burning of fossil fuels is the primary cause of global warming).

especially deforestation caused by human activities including excessive logging, slash-and-burn agriculture, and urbanization. 75

If human emissions of GHGs continue to grow at the same rate as the last several years, by 2100, concentrations of CO, in the atmosphere will likely reach 540 to 970 ppm, which would represent the highest concentrations in the last 30 to 50 million years. 76 If concentrations of CO₂ in the atmosphere rise to 540 to 970 ppm, the overwhelming majority of climatologists conclude that there is a strong probability that surface temperatures on Earth will rise between 2.5 and 10.4 degrees F (1.4 and 5.8 degrees C) by 2100.⁷⁷ Such increased temperatures would likely cause at least partial melting of the polar ice caps. The melting of large amounts of polar ice would result in rising sea levels that would threaten many island and coastal inhabitants as well as harm those living in arctic regions.⁷⁸ Global warming would also likely produce erratic and severe weather patterns that would increase both the duration and intensity of droughts, and the intensity and frequency of flooding.⁷⁹ A new model generated by government supercomputers predicts that global warming during the next 80 years will increase the intensity and rainfall of hurricanes.80 The combination of warmer and more extreme weather could increase waterand insect-borne diseases such as typhoid, dengue, and malaria.81

Global warming is already causing significant environmental harm in Alaska from melting permafrost and rising coastal waters.⁸² The General Accounting Office has reported to Congress that coastal flooding worsened by global warming will require substantial expenditure for either expanding sea walls or relocating entire towns—costing perhaps hundreds of millions

 $^{^{75}}$ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, at 7; Grossman, supra note 59, at 3

⁷⁶ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, at 12; Pegg, supra note 71.

⁷⁷ CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, *supra* note 2, at 13; HUNTER ET AL., *supra* note 9, at 593; *see also* Pegg, *supra* note 71 (reporting the expert opinion of Harvard University paleoclimatologist Dan Schrag that surface temperatures will rise between 1.7 and 4.9 degrees C).

⁷⁸ See CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, at 15–17 (discussing the potential impacts of global warming on environment, weather, and disease); HUNTER ET AL., supra note 9, at 589 (same); Carey et al., supra note 72, at 60–64 (same).

⁷⁹ See CLIMATE CHANGE 2001: THE SCIENTIFIC BASIS, supra note 2, at 15–16; HUNTER ET AL., supra note 9, at 589; Hodas, supra note 58, at 61.

 $^{^{80}}$ Robert Tuleya & Thomas R. Knutson, *Impact of CO_z-Induced Warming on Simulated Hurricane Intensity and Precipitation*, 17 J. CLIMATE 3477 (2004); Andrew C. Revkin, *Global Warming is Expected to Increase Hurricane Intensity*, N.Y. TIMES, Sept. 30, 2004, at A20 (reporting a study that used simulations on U.S. Commerce Department supercomputers to predict increasing hurricane frequency and intensity as global warming increases temperatures from now until the 2080s).

⁸¹ HUNTER ET AL., supra note 9, at 589.

⁸² Doyle, *supra* note 59; Yereth Rosen, *Alaska's Not-So-Permanent Frost*, Christian Sci. Monitor, Oct. 7, 2003, at 1 (reporting that melting permafrost has destroyed two villages, harmed roads, and increased coastal erosion); Sherwonit, *supra* note 59, at 24 ("Glaciers and sea ice are rapidly melting, boreal forests are being transformed by unprecedented insect outbreaks, permafrost is diminishing, lakes are drying up, Arctic tundra is giving way to woodlands, and coastal areas are being eaten away by fierce storms.").

of dollars for each village.⁸³ Of the 213 Alaska Native villages, 184 face flooding and erosion problems, with very serious problems in about twenty.⁸⁴

The public nuisance suit filed by eight states and New York City alleges that global warming is already causing significant increases in temperature, sea level changes, reduced snow pack, and less winter ice, especially in the northern continental 48 states. For example, on Lake Mendota, Wisconsin, the average duration of winter ice cover decreased from four months in the mid-1800s to three months in the 1990s. Critics of the suit, however, argue that computer models of global warming are currently incapable of proving harm at a state or local level, even assuming they are accurate enough to show global or regional changes.

Although there is disagreement regarding the extent to which global warming will harm the continental United States in the next few years, two recent Pew Center studies have found that there will likely be significant negative consequences from global warming by 2100, including the drying of agricultural plains and the flooding of coastal regions. The largest economic impacts of climate change are likely to be on the agricultural, livestock, forestry, and fisheries industries, which are more vulnerable to climate and precipitation changes than non-farm industries or services. By 2100, large temperature increases are likely to have substantial negative economic impacts on the American economy by making the climate drier. 88 There is

The computer models are relatively good for large areas, say, Northern or Southern Europe. But they're not so good for predicting effects in smaller areas. If [the attorneys general] say: "This had an adverse effect on my state"—this is where there's a disconnect. The science isn't there for them; this is where they're going to have trouble.

Clayton, supra note 45, at 15.

⁸³ Yereth Rosen, *Alaska Natives Say Warming Trend Imperils Villages*, REUTERS, July 1, 2004, (reporting GAO has found that of 213 Alaska Native villages, 184 face flooding and erosion problems, with very serious problems in about 20).

⁸⁴ Id.

⁸⁵ The Complaint alleges that since 1900 temperatures in the western United States, including California, have risen 2 to 5 degrees F, that temperatures in the northern portion of the Midwest, including the upper Great Lakes, are 4 degrees higher, and that between 1953 and 1998, snow cover in New England states decreased by seven days. See Complaint ¶¶ 104–05, Connecticut v. Am. Elec. Power Co., No. 04-CV-05669 (S.D.N.Y. filed July 21, 2004), available at http://www.ag.ca.gov/newsalerts/2004/04-076.pdf; Clayton, supra note 45, at 15.

⁸⁶ See Complaint ¶ 105, Connecticut v. Am. Elec. Power Co., No. 04-CV-05669; Clayton, supra note 45, at 15.

⁸⁷ For example, Patricia Braddock, a partner with Fulbright & Jaworski, LLP, a Houston firm that often represents the power industry in environmental litigation, has said,

⁸⁸ See Dale Jorgenson et al., U.S. Market Consequences of Global Climate Change, at iii-ix, 31–38, 39–40 (Apr. 2004) (discussing potential economic impacts of global warming on United States economy during 21st century using optimistic and pessimistic scenarios), available at http://www.pewclimate.org/docUploads/Market%5FConsequences%2Dreport%2Epdf; Joel Smith, A Synthesis of Potential Climate Change Impacts on the United States iii-vi, 18–19, 34–36 (Apr. 2004) (discussing potential national and regional impacts of global warming on different regions of the United States during 21st century), available at http://www.pewclimate.org/docUploads/Pew%2DSynthesis%2Epdf.

already some evidence that corn yields in the Midwest have declined by about ten percent.⁸⁹

B. International Treaties to Address Global Warming: The United Nations Framework Convention on Climate Change and the Kyoto Protocol

Modern international environmental treaties are often negotiated in stages, starting with a framework treaty that can achieve international consensus and then addressing the more difficult problem of enforceable standards.⁹⁰ Thus, the 1985 Vienna Convention for the Protection of the Ozone Laver⁹¹ led to the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. 92 In 1990, as a result of growing concerns about global warming, the United Nations authorized an Intergovernmental Negotiating Committee on Climate, and set the goal of reaching an agreement in time for the June 1992 Rio Earth Summit. The climate change negotiations revealed some major differences among various groups of nations. 93 The "Group of 77" developing nations, which actually included 128 countries by the Rio Summit, called on already industrialized nations to bear most of the reductions because they had caused most of the increase in GHGs, and demanded that industrialized nations provide financial and technological assistance if they expected developing nations to reduce the rate of greenhouse gas emissions. The Group of 77 opposed any enforceable targets that would hinder their economic growth.⁹⁴ In response to a proposal by several European nations that industrialized nations should reduce their CO. emissions to 1990 levels by 2000, the United States opposed setting enforceable targets before more research addressed the causes and extent of global warming and also opposed a treaty that would regulate only CO. rather than all GHGs.95 To reach an agreement by the Rio Summit, the negotiators avoided setting any enforceable limits in the 1992 United Nations Framework Convention on Climate Change (Framework Convention).⁹⁶

The Framework Convention established the general principle that parties limit "greenhouse gas concentrations in the atmosphere at a level

⁸⁹ See Carey et al., supra note 72, at 62 (quoting ecologist Christopher B. Field of the Carnegie Institute); see also Post, supra note 45, at 4 ("Iowa Attorney General Tom Miller asserted that global warming has already cost Iowa corn and soybean farmers about \$1 billion.").

⁹⁰ See generally Hunter et al., supra note 9, at 291–302 (discussing typical stages in negotiating international environmental treaty using example of negotiations leading to 1987 Montreal Protocol of Substances that Deplete the Ozone Layer).

⁹¹ Vienna Convention for the Protection of the Ozone Layer, Mar 22, 1985, T.I.A.S. No. 11,097, 1513 U.N.T.S. 293, 26 I.L.M. 1529 (1987).

⁹² Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, S. TREATY Doc. No. 100-10, 1522 U.N.T.S. 3, 26 I.L.M. 1541, 1550 (1987).

⁹³ See Hunter et al., supra note 9, at 616–18 (discussing negotiations leading to 1992 United Nations Framework Convention on Climate Change (Framework Convention)).

⁹⁴ See id. at 188–90, 617 (discussing predominant views among developing nations during negotiations leading to the 1992 Framework Convention and at the 1992 Rio Earth Summit).

⁹⁵ See id. at 616–18.

⁹⁶ Framework Convention, *supra* note 1.

that would prevent dangerous anthropogenic interference with the climate system,"97 but it did not require participating nations to limit such gases.98 Rather, Article 4(1)(f) allows parties to consider costs in determining appropriate reductions in GHGs, stating that all parties should "[t]ake climate change considerations into account, to the extent feasible . . . with a view to minimizing adverse effects on the economy."99 The most controversial feature of the Framework Convention is its division of nations into three overlapping categories with different responsibilities for climate change: 1) all parties; 2) all industrialized country parties (Annex I); and 3) all industrialized country parties except members of the former Soviet Union that were struggling with economic transition issues (Annex II). 100 All parties share basic information collection duties in Article 4(1). Article 4(2)(a) places a heavier, but undefined, burden on Annex I developed country parties to limit anthropogenic emissions of GHGs and to protect and enhance GHG sinks and reservoirs such as forests, and Article 4(2)(b) states that industrialized nations should "aim" to reduce emissions to 1990 levels. but no provision requires actual reductions in such gases. 101 By March 1994, enough countries signed the Framework Convention for it to enter into force as law. 102 The United States signed the Framework Convention, but has not yet set any enforceable limits on GHG emissions. 103

In 1995, IPCC released its Second Assessment Report, which found that "the balance of evidence suggests a discernable human influence on global climate." ¹⁰⁴ Largely because of this Second Assessment Report and growing public concern about climate change, ¹⁰⁵ the major parties to the Framework Convention, including the United States, agreed to include enforceable targets in the 1997 Kyoto Protocol to the Convention. ¹⁰⁶ The Protocol requires developed countries to reduce GHG emissions five to eight percent below their 1990 levels by 2008–2012. ¹⁰⁷

 $^{^{97}}$ Id. art. 2, 31 I.L.M. at 854; See Hunter et al., supra note 9, at 618–19 (discussing Article 2).

⁹⁸ See Hunter et al., supra note 9, at 589, 618–19 (discussing the lack of enforceable targets in the Framework Convention); Hodas, supra note 58, at 58.

 $^{^{99}}$ Framework Convention, *supra* note 1, at art. 4(1)(f), 31 I.L.M. at 855–59 (emphasis added); *see* HUNTER ET AL., *supra* note 9, at 621 (discussing Articles 4(2)(d) and 7(2)(a), requiring the parties to periodically evaluate implementation of the Convention).

¹⁰⁰ See Hunter et al., supra note 9, at 619 (detailing the classification of nations under the Framework Convention).

¹⁰¹ Framework Convention, *supra* note 1, at art. 4(2)(a)–(b), 31 I.L.M at 855–59 (emphasis added); *see* HUNTER ET AL., *supra* note 9, at 618–19, 622 (discussing Article 4(2)'s additional burdens on Annex I nations).

¹⁰² Framework Convention, supra note 1.

¹⁰³ Hodas, supra note 58, at 58.

¹⁰⁴ CLIMATE CHANGE 1995: THE SCIENCE OF CLIMATE CHANGE, *supra* note 68, at 5; HUNTER ET AL., *supra* note 9, at 626; Grossman, *supra* note 59, at 2.

¹⁰⁵ HUNTER ET AL., supra note 9, at 626.

¹⁰⁶ See Kyoto Protocol, supra note 9, art. 3.1, 37 I.L.M. at 33 (providing targets); id. art. 17, 37 I.L.M. at 40 (providing for enforcement); HUNTER ET AL., supra note 9, at 626–30 (discussing negotiations leading to Kyoto Protocol).

¹⁰⁷ Kyoto Protocol, *supra* note 9, art. 3.1, 37 I.L.M. at 33 (requiring industrialized nations in Annex I to reduce emissions by at least 5 per cent below 1990 levels); *id.* Annex B, 37 I.L.M. at

To enter into force, the Protocol required participation by nations representing 55 percent of industrialized-world emissions of CO₂, a target that pre-2004 signatories from primarily European countries and Japan could not meet on their own. ¹⁰⁸ Both the United States and Australia rejected the Protocol. ¹⁰⁹ After extended negotiations in which it extracted trade concessions from European nations, including membership in the World Trade Organization, Russia, which represents approximately 17 percent of industrialized-world emissions of CO₂—second to the United States' 24 percent—signed the Protocol, permitting it to enter into force. ¹¹⁰

It is unlikely that the United States will ratify the Kyoto Protocol. President Clinton supported the Protocol and sought to build public support in the United States for it. Industry, however, mounted a strong countercampaign, arguing that the Protocol was fundamentally unfair to the United States because it exempted all developing countries from GHG reductions, including major GHG-producing nations such as India and China. In 1998, China and the developing world produced 38 percent of global carbon emissions, but EPA projects that China and the developing world's share will rise to 50 percent by 2020. Utilities also argued that costs would be too high for the United States' economy because of our strong reliance on domestic coal for power plants. In addition, there is a plausible argument that the Protocol is unfair to the United States because it ignores the fact that, partly due to substantial immigration, our nation has had a much faster population growth rate than most other developed nations, as well as a

^{43 (}listing reduction commitments of Annex I countries as percentage from Base Year 1990); see also Hunter et al., supra note 9, at 630 (discussing enforceable GHG reductions in 1997 Kyoto Protocol).

¹⁰⁸ Hodas, supra note 58, at 58.

Science, Rational Economics, and Pragmatic Politics? 1–2 (John F. Kennedy School of Gov't Faculty Research, Working Papers Series, May 2004) (stating Australia has rejected Kyoto Protocol), available at http://ksgnotes1.harvard.edu/Research/wpaper.nsf/rwp/RWP04-020/\$File/rwp04_020_Stavins_on.pdf; see also infra notes 117–23 and accompanying text (describing the failure of the United States to ratify).

¹¹⁰ Steven Lee Myers, *Putin Ratifies Kyoto Protocol on Emissions*, N.Y. TIMES, Nov. 6, 2004, at A10; Erin E. Arvedlund, *Europe Backs Russian Entry Into W.T.O.*, N.Y. TIMES, May 22, 2004, at C1 (reporting that Russia has agreed to ratify Kyoto Protocol in exchange for the European Union's support for Russia's entry into the World Trade Organization).

¹¹¹ HUNTER ET AL., supra note 9, at 626–29; Veronique Bugnion & David M. Reiner, A Game of Climate Chicken: Can EPA Regulate Greenhouse Gases Before the U.S. Senate Ratifies the Kyoto Protocol?, 30 ENVIL. L. 491, 496 (2000); Hodas, supra note 58, at 58.

¹¹² See Hunter et al., supra note 9, at 627 (noting that the United States' opposition to the Kyoto Protocol results from alleged unfairness of excluding developing countries from emission reductions and that costs would be too high for the United States' economy); STAVINS, supra note 109, at 3–5 (noting that the Kyoto Protocol is widely criticized for not requiring reductions by developing nations).

¹¹³ U.S. Envtl. Prot. Agency, *Global Warming: Projections, at* http://yosemite.epa.gov/oar/globalwarming.nsf/content/EmissionsInternationalProjections.html (last visited Feb. 20, 2005) (presenting one chart with global carbon emissions for several countries in 1998 and a second chart with estimated emissions for several countries in 2020).

¹¹⁴ See HUNTER ET AL., supra note 9, at 627; STAVINS, supra note 109, at 3-5.

faster economic growth rate than most European nations since 1990.¹¹⁵ Thus, it would be more difficult for the United States to reduce its GHG emissions below 1990 levels than for other nations.¹¹⁶

On July 25, 1997, during the negotiations in Kyoto, the Senate passed the non-binding Byrd-Hagel Resolution, Senate Resolution 98, by a unanimous 95 votes. The Resolution opposed the Protocol because of the developing nation exemption and cost issues for American coal-burning power plants. Although he signed the Protocol in 1998, President Clinton decided not to submit it to the Senate for ratification due to the Senate's overwhelming opposition. Because the Constitution clearly requires Senate ratification for all treaties, the Protocol is not part of the law of the United States, and therefore, no citizen has standing to enforce it. 119

In 2001, newly elected President Bush strongly rejected the Kyoto Protocol and any mandatory regulation of GHGs despite his campaign promise in 2000 to support mandatory reductions in GHGs. ¹²⁰ Since 2001, the Bush Administration has primarily committed to research about the causes of climate change, and its Climate VISION program has encouraged voluntary reductions by industry in the amount of GHGs released. ¹²¹ In its

¹¹⁵ See STAVINS, supra note 109, at 8–9 (noting that the United States gross domestic product grew by 37% in the 1990s).

¹¹⁶ See STAVINS, supra note 109, at 8-9 (describing the effect of economic growth on the burden of reducing GHG emissions).

¹¹⁷ Bugnion & Reiner, supra note 111, at 495. The Byrd-Hagel Resolution stated,

[[]T]he United States should not be a signatory to any protocol . . . which would-

⁽A) mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or

⁽B) would result in serious harm to the economy of the United States. . . .

S. Res. 98, 105th Cong., 143 CONG. REC. 15,808 (1997) (enacted).

¹¹⁸ HUNTER ET AL., *supra* note 9, at 626–29; Bugnion & Reiner, *supra* note 111, at 496; Hodas, *supra* note 58, at 58.

¹¹⁹ See Hodas, supra note 58, at 59 (describing treaty ratification process).

¹²⁰ Id. at 58; Randy Lee Loftis, *The Green Vote; Where Bush and Kerry Stand on Environmental Issues*, SEATTLE TIMES, Apr. 23, 2004, at A3, available at 2004 WL 58933299.

¹²¹ See Dep't of Energy, Climate VISION—Voluntary Innovative Sector Initiatives: Opportunities Now, at http://www.climatevision.gov (last visited Feb. 20, 2005) (encouraging private industry to reduce GHGs); Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,932 (Sept. 8, 2003) ("The 'Climate VISION' (Voluntary Innovative Sector Initiatives: Opportunities Now) program, a Presidential initiative launched by the Department of Energy (DOE) in February 2003, is a voluntary public-private partnership designed to pursue cost-effective strategies to reduce the growth of GHG emissions, especially by energy-intensive industries."); News Release, EPA, Bush Administration Launches "Climate VISION" (Feb. 12, 2003), http://www.epa.gov/newsroom/2003/headline_021203a.htm; CLIMATE ACTION REPORT 2002, supra note 10, at 50-61 (discussing federal policies encouraging the private sector to reduce GHGs); id. at 62-69 (discussing private sector initiatives, some in partnership with federal government, to reduce GHGs); Carlson, supra note 58, at 289 (discussing the Bush Administration's voluntary programs to encourage GHG reductions, including the Climate Vision program); McKinstry, supra note 11, at 22–24 (same); id. at 58–64 (discussing voluntary GHG reductions by private industry); Loftis, supra note 120, at A3 ("Bush has earmarked \$4.4 billion for climate-change efforts, including \$1.75 billion for research and

2002 Climate Action Report to the United Nations required by the Framework Convention, the Bush Administration conceded that climate change was a significant problem, but also argued that the United States should not adopt changes that could harm the U.S. economy and instead contended that the government should research more efficient ways to reduce GHGs. ¹²² Instead of reducing GHG emissions compared to a baseline year, e.g., 1990, the Bush Administration seeks to reduce the ratio of GHGs to total gross domestic product by making the economy at least 18 percent more energy efficient. That approach, however, will still result in a total increase in GHG levels because of economic and population growth. ¹²³

III. ARTICLE III STANDING

The courts have issued conflicting decisions about whether to allow standing for plaintiffs who file suits alleging general injuries to the public at large—cases in which virtually every citizen has a small, common injury. Should courts resolve such issues or leave such questions to the politically elected branches of government—the President and Congress?¹²⁴ In cases involving generalized, abstract injuries that affect the public as a whole, such as misuse of taxpayer funds,¹²⁵ the courts have often concluded or suggested that it is inappropriate to allow a plaintiff standing to pursue such a suit because the political branches—the legislative or executive branches—are better suited than the judicial branch to resolve such controversies.¹²⁶ In *Duke Power Co. v. Carolina Environmental Study Group, Inc.* (*Duke*

^{\$500} million in energy-efficiency tax incentives.").

¹²² CLIMATE ACTION REPORT 2002, supra note 11, at 2-7 (summarizing report).

¹²³ Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. at 52,931–32 ("The President's goal is to lower the U.S. rate of emissions from an estimated 183 metric tons per million dollars of gross domestic product (GDP) in 2002 to 151 metric tons per million dollars of GDP in 2012."); CLIMATE ACTION REPORT 2002, *supra* note 11, at 5–6 (discussing U.S. plan to reduce GHG intensity by 18% in ten years, but acknowledging that total GHG emissions will grow); *id.* at 70–80 (projecting increased U.S. GHG emissions by 2020).

¹²⁴ See infra Part III.B.2.d.

¹²⁵ See, e.g., Asarco, Inc. v. Kadish, 490 U.S. 605, 616–17 (1989) (concluding for a plurality that a taxpayer suit would have been dismissed had the action initially been brought in federal court); United States v. Richardson, 418 U.S. 166, 176–77 (1974) (holding that a federal taxpayer did not have standing to seek disclosure of CIA expenditures based upon the Accounts Clause of the Constitution so that he could "properly fulfill his obligations as a member of the electorate in voting" because he was not injured in fact); Flast v. Cohen, 392 U.S. 83, 88 (1968) (holding that a federal taxpayer did not have standing to challenge spending allegedly in violation of Constitution); Cantrell v. City of Long Beach, 241 F.3d 674, 683–84 (9th Cir. 2001) (stating that federal courts require a taxpayer seeking standing to demonstrate direct injury in a case alleging mishandling of municipal or state tax funds); Hodas, *supra* note 64, at 471–72 (discussing the narrow scope of taxpayer standing).

¹²⁶ See, e.g., Defenders, 504 U.S. 555, 576–77 (1992) (asserting that vindication of the public interest is a function of Congress and the Executive); Richardson, 418 U.S. 166, 176–77 (1974) (stating that generalized grievances do not give rise to a concrete injury); Covington, 358 F.3d 626, 651 (9th Cir. 2004) (Gould, J., concurring) (same); Florida Audubon Soc'y v. Bentsen (Florida Audobon), 94 F.3d 658, 667 n.4 (D.C. Cir. 1996) ("The plaintiff must show that he is not simply injured as is everyone else, lest the injury be too general for court action."); Grossman, supra note 59, at 40 n.217.

Power), ¹²⁷ the Supreme Court stated in 1978 that a court could deny standing if a suit would raise "general prudential concerns 'about the proper—and properly limited—role of the courts in a democratic society." The *Duke Power* Court concluded, "Thus, we have declined to grant standing where the harm asserted amounts only to a generalized grievance shared by a large number of citizens in a substantially equal measure." ¹²⁹

Conversely, some Supreme Court decisions on standing implied or stated that plaintiffs could establish standing even if they suffered an injury common to many people. In its 1973 decision *United States v. Students Challenging Regulatory Agency Procedures* (*SCRAP*), ¹³⁰ the Court declared that "to deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread . . . actions could be questioned by nobody." Additionally, in its 1975 decision *Warth v. Seldin*, ¹³² the Court held that a plaintiff may be able to satisfy Article III standing requirements "even if it is an injury shared by a large class of other possible litigants." ¹³³

A. Basics of Standing

Article III of the Constitution establishes the parameters of the federal judicial branch by creating a Supreme Court and authorizing Congress to establish lower federal courts. Article III does not contain explicit standing requirements for suits in federal courts. Article III indirectly places limits on the federal judicial power by stating that the "judicial Power shall extend to all Cases... [and]... Controversies," thus excluding advisory opinions. Early Supreme Court decisions indirectly established standing requirements by limiting suits to common law forms of action or the statute at issue. Since 1944, the Supreme Court has interpreted Article III's limitation of judicial decisions to cases and controversies as implying that federal courts should require plaintiffs to meet certain standing criteria to ensure that the plaintiff has a genuine interest and stake in a case. The Court's development of formal standing requirements was probably influenced by the rise of new administrative agencies during the 1930s and

^{127 438} U.S. 59, 80 (1978).

¹²⁸ Id. (quoting Warth v. Seldin, 422 U.S. 490, 498 (1975)).

¹²⁹ Id.

¹³⁰ 412 U.S. 669, 688 (1973).

¹³¹ *Id.*

^{132 422} U.S. 490, 501 (1975).

¹³³ *Id*

¹³⁴ U.S. CONST. art. III.

¹³⁵ Robert V. Percival, "Greening" the Constitution—Harmonizing Environmental and Constitutional Values, 32 ENVIL. L. 809, 827 (2002); Cass R. Sunstein, What's Standing After Lujan? Of Citizen Suits, "Injuries," and Article III, 91 MICH. L. REV. 163, 170 (1992).

¹³⁶ U.S. CONST. art. III, § 2, cl. 1.

¹³⁷ Percival, *supra* note 135, at 827; Sunstein, *supra* note 135, at 170–75.

¹³⁸ Percival, *supra* note 135, at 827; Sunstein, *supra* note 135, at 170–75.

¹³⁹ Stark v. Wickard, 321 U.S. 288, 310 (1944); Hodas, *supra* note 64, at 454; Sunstein, *supra* note 135, at 169.

the need to clarify whether potential beneficiaries of regulation could challenge administrative decisions. 140

In the Administrative Procedure Act (APA) of 1946, ¹⁴¹ Congress explicitly recognized that beneficiaries of regulation had standing to challenge adverse agency decisions. ¹⁴² The APA authorizes judicial review both for those who have allegedly suffered common law injuries—a "person suffering legal wrong because of agency action"—and those who are allegedly denied statutory benefits by an agency—a person "adversely affected or aggrieved by agency action within the meaning of the relevant statute." ¹⁴³ It was not until the 1970 decision in Association of Data Processing Organizations v. Camp (Data Processing) ¹⁴⁴ that the Court interpreted the APA to require a plaintiff to have suffered an "injury in fact" to obtain standing to challenge a government action. ¹⁴⁵ Furthermore, Data Processing was the first Court decision requiring plaintiffs suing under the APA to demonstrate that their suit is "arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question." ¹⁴⁶

Courts have treated standing requirements as jurisdictional and have required them to be met at each stage of federal litigation. Rejecting standing for a taxpayer suit, the Court stated, The question is whether the person whose standing is challenged is a proper party to request adjudication of a particular issue and not whether the issue itself is justiciable. For standing in an Article III court, the Court currently requires a plaintiff to show (1) [she] has suffered an injury in fact that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the

¹⁴⁰ See, e.g., Fed. Communication Comm'n v. Sanders Bros. Radio Station, 309 U.S. 470, 476–77 (1940) (holding that a competing radio station may challenge an FCC licensing decision because the station was a beneficiary of the goal of the Federal Communications Act of 1934 to promote the public interest in adequate communications service); Percival, *supra* note 135, at 827; Sunstein, *supra* note 135, at 179.

¹⁴¹ 5 U.S.C. §§ 551–559, 701–706, 1305, 3105, 3344, 4301, 5335, 5372, 7521 (2000).

¹⁴² Percival, supra note 135, at 827.

¹⁴³ 5 U.S.C. § 702 (2000); Percival, *supra* note 135, at 827.

^{144 397} U.S. 150, 152 (1970).

¹⁴⁵ *Id.* at 152–56; Sunstein, *supra* note 135, at 169, 185–86 (criticizing *Data Processing*'s injury in fact test as inconsistent with the language of the APA).

¹⁴⁶ Data Processing, 397 U.S. at 153–54 (1970) (requiring for the first time that a plaintiff suing under the APA demonstrate that his suit is "arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question"); William W. Buzbee, Expanding the Zone, Tilting the Field: Zone of Interests and Article III Standing Analysis After Bennett v. Spear, 49 ADMIN. L. REV. 763, 778–79 (1997) ("The 'zone of interests' test was first articulated in Association of Data Processing.").

¹⁴⁷ See Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc. (*Laidlaw*), 528 U.S. 167, 180 (2000) ("[W]e have an obligation to assure ourselves that [petitioner] had Article III standing at the outset of the litigation.").

¹⁴⁸ Flast v. Cohen, 392 U.S. 83, 99–100 (1968).

injury will be redressed by a favorable decision."¹⁴⁹ A plaintiff has the burden of establishing all three elements.¹⁵⁰

1. Injury in Fact

Several court decisions have addressed and explained the first standing requirement—injury in fact.¹⁵¹ The "party seeking review must be himself among the injured,"¹⁵² and, therefore, if an organization sues, at least one of its members must have a requisite injury.¹⁵³ A plaintiff must demonstrate that the injury is "distinct and palpable"¹⁵⁴ or "concrete and particularized,"¹⁵⁵ and not diffuse, vague, or too general.¹⁵⁶ A threatened injury, as opposed to an actual injury, must be "imminent, not conjectural or hypothetical."¹⁵⁷

Some lower courts have held that a plaintiff must establish a "geographical nexus" between where the injury occurs and her location, especially in procedural rights cases where the alleged procedural error must affect land or the environment reasonably near to where the plaintiff

An association has standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

528 U.S. at 181 (2000) (citing Hunt v. Washington State Apple Advertising, 432 U.S. 333, 343 (1977)). See also Sierra Club, 405 U.S. at 735–39 (requiring an environmental organization to demonstrate that at least one of its members suffered an injury in fact and rejecting organizational standing); Percival, *supra* note 135, at 828 (discussing the standing requirements in Sierra Club).

¹⁴⁹ Laidlaw, 528 U.S. at 180–81 (quoting *Defenders*, 504 U.S. 555, 560–61 (1992)).

¹⁵⁰ See Defenders, 504 U.S. at 561 ("[T]he party invoking federal jurisdiction bears the burden of establishing these elements.").

¹⁵¹ See William M. Orr, Florida Audubon Society v. Bentsen: An Improper Application of Lujan to a Procedural Rights Plaintiff, 15 PACE ENVIL L. REV. 373, 377–78 (1997) (outlining the injury in fact element).

¹⁵² Sierra Club v. Morton, 405 U.S. 727, 735 (1972).

¹⁵³ As stated in Laidlaw,

¹⁵⁴ Valley Forge Christian Coll. v. Americans United for Separation of Church & State, Inc., 454 U.S. 464, 475 (1982); Orr, *supra* note 151, at 377–78 (discussing same).

¹⁵⁵ *Defenders*, 504 U.S. at 560–61.

¹⁵⁶ See infra Parts III.B.2.a-b, III.C.

¹⁶⁷ Whitmore v. Arkansas, 495 U.S. 149, 155 (1990); Orr, *supra* note 151, at 378.

lives or uses land for recreation. ¹⁵⁸ In *United States v. AVX Corporation*, ¹⁵⁹ the First Circuit held that the plaintiff

bore [the] burden, to the extent its standing was dependent on a claim of procedural harm, to [describe] with fair specificity some concrete nexus between its members and the harbor area. Without such a nexus, any procedural harm its members suffered was common to all members of the public and, therefore, did not rise to the level of stating an individualized claim of harm. ¹⁶⁰

The Supreme Court has not used the term "geographical nexus," ¹⁶¹ but has emphasized that the proximity of a plaintiff to the location of alleged harm is a significant factor in deciding whether the plaintiff has a concrete injury necessary for standing. ¹⁶² Thus, an allegation that a plaintiff hikes "in the vicinity" of a large tract of land may be insufficient to prove an injury in fact. ¹⁶³

¹⁵⁸ See, e.g., Florida Audubon, 94 F.3d 658, 667 n.4 (D.C. Cir. 1996) (en banc) ("As the 'geographic nexus' test at issue here was in fact intended to ensure that a plaintiff's injury met this first criterion of being particularized and personal, an analysis of that test that does not actually require the plaintiff to demonstrate that such particularity must be invalid."); City of Evanston v. Reg'l Transp. Auth., 825 F.2d 1121, 1126, cert. denied, 484 U.S. 1005 (7th Cir. 1987) (holding that plaintiffs did not prove standing under NEPA because they did "not sufficiently allege where they lived in relation to the property."); City of Davis v. Coleman, 521 F.2d 661, 671 (9th Cir. 1975) ("The procedural injury implicit in agency failure to prepare an EIS... is itself a sufficient 'injury in fact' to support standing, provided this injury is alleged by a plaintiff having a sufficient geographical nexus to the site of the challenged project that he may be expected to suffer whatever environmental consequences the project may have."); Nelson, supra note 32, at 260-61, 277-78 (criticizing cases applying an overly strict geographical nexus requirement); Orr, supra note 151, at 380-86 (discussing cases using a geographical nexus requirement for standing in procedural rights cases).

^{159 962} F.2d 108 (1st Cir. 1992).

¹⁶⁰ Id. at 119-20.

¹⁶¹ Orr, *supra* note 151, at 383–86 (stating that although the Court in *Defenders* did not use the term "geographical nexus," the court recognized that showing geographical nexus created a concrete interest).

¹⁶² See Defenders, 504 U.S. 555, 567 n.3 (1992) ("The dissent may be correct that the geographic remoteness . . . does not 'necessarily' prevent such a finding—but it assuredly does so when no further facts have been brought forward."); id. at 572 n.7 (rejecting "standing for persons who have no concrete interests affected—persons who live (and propose to live) at the other end of the country from [the environmental impact]"); Randall S. Abate & Michael J. Myers, Broadening the Scope of Environmental Standing: Procedural and Informational Injury-in-Fact After Lujan v. Defenders of Wildlife, 12 UCLA J. ENVTL. L. & POL'Y 345, 364 n.113 (1994) ("Although the Supreme Court [in Defenders] did not specifically address the geographic nexus requirement . . . Justice Scalia would appear to consider such a nexus to be a 'separate concrete interest."); Brian J. Gatchel, Information and Procedural Standing After Lujan v. Defenders of Wildlife, 11 J. LAND USE & ENVTL. L. 75, 94–95 (1995) (noting same); Orr, supra note 151, at 383–86 (noting same).

¹⁶³ Defenders, 504 U.S. at 565-66 ("[A] plaintiff claiming injury from environmental damage must use the area affected by the challenged activity and not an area roughly 'in the vicinity' of it.") (citations omitted); Lujan v. Nat'l Wildlife Fed'n (NWF), 497 U.S. 871, 887-89 (1990) (rejecting "in the vicinity" allegations as too vague where the plaintiff challenged government reclassification of a large area of land).

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Although the injury in fact requirement inevitably restricts standing by excluding those without concrete injuries, the Court in some ways has adjusted the injury requirement to address the special problems faced by environmental or procedural plaintiffs.¹⁶⁴ For instance, as is discussed in Parts III.B.2.e and V.E, the Court has relaxed the imminence requirement for plaintiffs alleging procedural injuries, such as the failure of a federal agency to prepare an environmental impact statement.¹⁶⁵ The Court has defined the concept of injury relatively broadly to include "aesthetic, conservational or recreational harm," stating that "environmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity."¹⁶⁶ To demonstrate an injury in fact for standing, an environmental plaintiff does not need to prove that pollution harmed her or the environment that she uses, but she must merely allege "reasonable concerns" that such pollution might plausibly be harmful.¹⁶⁷

2. Traceability-Causation

The second standing requirement—traceability—is essentially a causation requirement. A plaintiff must demonstrate a causal connection between the injury and the conduct complained of—the injury has to be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court. In its 1973 SCRAP decision, the Court allowed standing despite an attenuated line of causation, the that case involved a Rule 12(b) motion to dismiss, which

¹⁶⁴ Defenders, 504 U.S. at 572 n.7 ("There is this much truth to the assertion that 'procedural rights' are special: The person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy."); Orr, supra note 151, at 375 ("Significantly lower standards are required of procedural rights plaintiffs to meet the test of standing."), 380–86 (discussing standing rules for procedural rights defendants).

¹⁶⁵ See Defenders, 504 U.S. at 572 n.7 (1992); Cantrell, 241 F.3d 674, 679 n.3 (9th Cir. 2001) ("[T]he injury in fact requirements are adjusted for plaintiffs raising procedural issues in that although they must show a 'concrete interest' at stake, they need not show that the substantive environmental harm is *imminent*." (emphasis added)).

¹⁶⁶ Sierra Club, 405 U.S. 727, 734-39 (1972).

¹⁶⁷ Laidlaw, 528 U.S. 167, 181, 183–84 (2000) ("[T]he affiant members' reasonable concerns about the effects of those discharges, directly affected those affiants' recreational, aesthetic, and economic interests.").

¹⁶⁸ Defenders, 504 U.S. at 560; Simon v. E. Ky. Welfare Rights Org., 426 U.S. 26, 41–42 (1976); City of Los Angeles v. Nat'l Highway Safety Admin. (*City of Los Angeles*), 912 F. 2d 478, 483 (Ginsburg, D.H., J., dissenting in part) (D.C. Cir. 1990), overruled by Florida Audubon, 94 F. 3d 658, 669 (D.C. Cir. 1996) (en banc).

¹⁶⁹ Defenders, 504 U.S. at 560 (internal quotation marks omitted) (quoting Simon, 426 U.S. at 41–42).

¹⁷⁰ SCRAP, 412 U.S. 669, 688–90 (1973) (concluding plaintiffs had alleged sufficient facts to survive a motion to dismiss despite the "attenuated line of causation" alleged by the plaintiffs); Percival, supra note 135, at 828. In SCRAP, law students alleged that a freight rate increase would harm them by discouraging the use of recycled materials and would thus increase litter in Washington's Rock Creek Park, which would impair their aesthetic interest in using the park. The Court held this allegation was sufficient to give the students standing to challenge the

requires a court to assume that the facts alleged by a plaintiff are true. Subsequently, the Court has rejected *SCRAP*'s application to cases in which a defendant files a Rule 56 motion for summary judgment, which requires a plaintiff to aver specific facts to support its allegations.¹⁷¹ Thus, in deciding a motion for summary judgment, a court may find insufficient causation if a plaintiff alleges an attenuated injury based on a series of weakly connected events.¹⁷²

3. Redressability

The third standing requirement—redressability—overlaps to some extent with the second traceability requirement because both are concerned with causation, ¹⁷³ but there are some differences between the two requirements. Redressability is concerned with whether a favorable decision by a court would actually redress—solve or prevent—at least some of the problems causing the plaintiff's injuries. ¹⁷⁴ "[F]or a plaintiff who is injured or threatened with injury due to illegal conduct ongoing at the time of suit, a sanction that effectively abates that conduct and prevents its recurrence provides a form of redress." ¹⁷⁵ If a favorable decision is highly uncertain to have a positive impact on the defendant's behavior or the cause of the injuries affecting the plaintiff, a court may conclude that the issue is not redressable. ¹⁷⁶

Finally, the Court has stated that a plaintiff must demonstrate standing for each form of relief sought.¹⁷⁷ If all injuries are wholly in the past and there is no possibility of recurrence, then a citizen suit that seeks only civil penalties payable to the government and no injunctive relief provides no actual relief to the plaintiffs and there is no standing.¹⁷⁸ If, however, there is

Interstate Commerce Commission's decision to approve the rate increase even though the students would suffer at most an injury that was common to a wide range of people. *See SCRAP*, 412 U.S. at 690; Percival, *supra* note 135, at 828–29.

¹⁷¹ See NWF, 497 U.S. 871, 889 (1990) (rejecting application of SCRAP, a case finding that plaintiff had standing where defendant filed motion to dismiss, to a case involving defendant's motion for summary judgment, and stating that "[t]he SCRAP opinion, whose expansive expression of what would suffice for Section 702 [of the Administrative Procedure Act] review under the particular facts, has never since been emulated by this Court"). Because SCRAP involved a motion to dismiss while NWF involved a motion for summary judgment, the NWF Court did not have to address whether SCRAP was good law because different standards apply to these two different types of motion, and, therefore, NWF did not overrule SCRAP; but Justice Scalia's majority opinion questioned SCRAP's continuing validity in defining causation for standing.

¹⁷² See Allen v. Wright, 468 U.S. 737, 757–58 (1984) ("The indirectness of the injury... may make it substantially more difficult to meet the minimum requirement of Art. III.") (quoting Warth v. Seldin, 422 U.S. 490, 505 (1975)).

¹⁷³ Allen, 468 U.S. at 753 n.19; City of Los Angeles, 912 F. 2d at 483 (Ginsburg, D.H., J., dissenting in part); Haitian Refugee Ctr. v. Gracey, 809 F.2d 794, 801 (D.C. Cir. 1987).

¹⁷⁴ Simon, 426 U.S. at 38; Orr, supra note 151, at 378, 385; Sunstein, supra note 135, at 229.

¹⁷⁵ Laidlaw, 528 U.S. 167, 185–86 (2000).

¹⁷⁶ See infra notes 217-20 and accompanying text.

¹⁷⁷ Laidlaw, 528 U.S. at 183, 185.

¹⁷⁸ Steel Co. v. Citizens for a Better Env't, 523 U.S. 83, 106-09 (1998).

any reasonable chance that a defendant's paying civil penalties to the government will deter it from committing future violations that could harm the plaintiff, then a plaintiff has standing to sue even if it does not seek, or if the court does not grant, injunctive relief.¹⁷⁹

4. "Prudential" Limits

In addition to meeting the mandatory constitutional injury in fact, traceability, and redressability standing requirements discussed above, federal courts have also imposed "prudential" limits on standing. For example, a plaintiff's suit must fall within the "zone of interests" protected by the relevant statute or constitutional provision. Additionally, courts will generally refuse third parties the authority to file suit on behalf of another. Furthermore, courts may limit suits alleging general injuries common to large numbers of persons that otherwise meet applicable standing requirements if the sheer number of suits would overwhelm the courts and other branches of government are capable of providing remedies, or if the federal government could sue on behalf of those injured. Unlike constitutional limits on standing, however, Congress may expressly override prudential zone of interest limitations by, for example, providing expansive citizen suit provisions that reach the limits of constitutional standing.

¹⁷⁹ Laidlaw, 528 U.S. at 174, 185–86 ("To the extent that [civil penalties] encourage defendants to discontinue current violations and deter them from committing future ones, they afford redress to citizen plaintiffs who are injured or threatened with injury as a consequence of ongoing unlawful conduct.").

¹⁸⁰ See Bennett v. Spear, 520 U.S. 154, 162–63 (1997) (describing the "zone of interests" standard as a "prudential limitation" rather than a mandatory constitutional requirement); Data Processing, 397 U.S. 150, 153–54 (1970) (requiring plaintiff seeking standing to demonstrate that his suit is "arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question."); Buzbee, supra note 146, at 778–82 (arguing that the Supreme Court uses the "zone of interests" test to determine whether it is prudential to allow standing).

¹⁸¹ See Bennett, 520 U.S. at 162–163; Data Processing, 397 U.S. at 153–54.

¹⁸² See Defenders, 504 U.S. 555, 560–561 (1992) (stating that a court may reject standing if plaintiff is asserting the rights of a third party not before the court); Simon, 426 U.S. at 41–42 (same).

¹⁸³ Allen v. Wright, 468 U.S. 737, 751 (1984); *Duke Power*, 438 U.S. 59, 80 (1978) (stating that a court may deny standing if a suit would raise "general prudential concerns 'about the proper—and properly limited—role of the courts in a democratic society'... Thus, we have declined to grant standing where the harm asserted amounts only to a generalized grievance shared by a large number of citizens in a substantially equal measure.") (citing Warth v. Seldin, 422 U.S. 490, 498 (1975)); *Covington*, 358 F.3d 626, 654–55 & n.12 (9th Cir. 2004) (Gould, J., concurring) (discussing the authority of federal courts to use prudential concerns to limit suits that are excessively burdensome if political branches or suit by the United States could resolve the issue).

¹⁸⁴ Bennett, 520 U.S. at 162–66 (holding that "unlike their constitutional counterparts, [prudential limits on standing] can be modified or abrogated by Congress," and concluding that a citizen suit provision abrogated the zone of interest limitation); Warth v. Seldin, 422 U.S. at 501.

B. Justice Scalia: Injury to All is Injury to None— Let the Political Branches Decide

1. Justice Scalia's 1983 Law Review Article: A Road Map to His Argument that Generalized Injuries Belong to the Political Branches

In 1983, before he joined the Supreme Court in 1986 and while he was a judge on the D.C. Circuit, then-Judge Scalia wrote a law review article that disagreed with the relaxed approach to standing adopted by the Supreme Court and many lower court decisions. Scalia favored a narrower approach to standing because standing doctrine was a "crucial and inseparable element" of separation-of-powers principles, and more restrictive standing rules would limit judicial interference with the popularly elected legislative and executive branches. He argued that when "allegedly wrongful governmental action . . . affects 'all who breathe,'" no one has standing to seek redress in court, and the political branches should resolve the issue instead. 187

Criticizing judges who had suggested that courts adopt a more lenient approach to standing in environmental cases, he questioned "the judiciary's long love affair with environmental litigation." 188 Scalia argued that judges who enforce environmental laws are "likely (despite the best of intentions) to be enforcing the political prejudices of their own class." 189 Responding to Judge Skelly Wright's pro-environmentalist opinion in Calvert Cliffs Coordinating Committee v. Atomic Energy Commission 190 that "our duty. in short, is to see that important legislative purposes, heralded in the halls of Congress, are not lost or misdirected in the vast hallways of the federal bureaucracy,"191 then-Judge Scalia suggested that judicial nonenforcement of certain laws, such as Sunday Blue laws, because of standing barriers could actually have positive social impacts. He argued that, "[t]he ability to lose or misdirect laws [by denying standing where no particular harm to particular individuals or minorities is in question] can be said to be one of the prime engines of social change." 192 Judge Wright's suggestion that courts should treat environmental plaintiffs better than many other plaintiffs is certainly questionable. Yet Scalia's implication that society might be better off if courts did not enforce certain environmental laws

¹⁸⁵ See Antonin Scalia, The Doctrine of Standing as an Essential Element of the Separation of Powers, 17 SUFFOLK U. L. REV. 881 (1983); see also Hodas, supra note 64, at 456–57 (discussing Justice Scalia's 1983 standing article).

¹⁸⁶ Scalia, *supra* note 185, at 881; Percival, *supra* note 135, at 847.

¹⁸⁷ Scalia, *supra* note 185, at 896.

¹⁸⁸ Id. at 884.

¹⁸⁹ Percival, supra note 135, at 847 (quoting Scalia, supra note 185, at 896).

¹⁹⁰ 449 F.2d 1109 (D.C. Cir. 1971).

¹⁹¹ Id. at 1111

¹⁹² Scalia, *supra* note 185, at 897 (observing that Sunday blue laws initially were commonly unenforced before they were repealed by legislatures).

questionable and contrary to congressional intent in enacting those statutes. 193

2. Lujan v. Defenders of Wildlife

In the 1992 decision, *Lujan v. Defenders of Wildlife* (*Defenders*), ¹⁹⁴ Justice Scalia convinced the Court to partially adopt his approach to standing. A divided Court concluded that the environmental group Defenders of Wildlife (Defenders) lacked standing to challenge a Department of Interior rule interpreting section 7 of the Endangered Species Act (ESA)¹⁹⁵ as not applying to extraterritorial impacts of federal action. ¹⁹⁶ Defenders alleged that the United States provided partial funding for dam projects in Sri Lanka and Egypt that would likely damage the habitat of, and promote the extinction of, endangered and threatened species in those countries. ¹⁹⁷ Defenders sought standing based on the affidavits of two of its members who had traveled to those countries in the past, were concerned about endangered species in those two countries, and wanted to revisit the countries in the future but had no current travel plans. ¹⁹⁸

a. "Concrete" and "Imminent" Injury

In a majority and plurality opinion completely joined only by Chief Justice Rehnquist, Justice White, and Justice Thomas, ¹⁹⁹ Justice Scalia concluded that Defenders failed to meet standing requirements for four reasons. First, although he acknowledged that a plaintiff's "desire to use or observe an animal species, even for purely esthetic purposes is undeniably a cognizable interest for purposes of standing," ²⁰⁰ Justice Scalia concluded that Defenders had failed to assert a valid interest in endangered or threatened species in Egypt or Sri Lanka because the vague goals of the affiants to return to these countries "some day," without "any description of concrete plans... do not support a finding of... 'actual or imminent' injury." ²⁰¹ In an influential and significant concurring opinion, Justice Kennedy, joined by Justice Souter, agreed that the affiants' plans were too

¹⁹³ See Hodas, supra note 64, at 456–57 (criticizing Justice Scalia's narrow interpretation of standing for environmental plaintiffs).

¹⁹⁴ 504 U.S. 555 (1992).

¹⁹⁵ Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2000). ESA section 7 appears at *id.* § 1536.

¹⁹⁶ Defenders, 504 U.S. at 578; Hodas, supra note 64, at 464.

¹⁹⁷ *Defenders*, 504 U.S. at 563; Hodas, *supra* note 64, at 464.

¹⁹⁸ *Defenders*, 504 U.S. at 563–64; Hodas, *supra* note 64, at 464.

¹⁹⁹ Only Chief Justice Rehnquist and Justices White and Thomas joined Part III-B of Justice Scalia's opinion, which addressed redressability. *Defenders*, 504 U.S. at 556, 568–71; *see infra* Part III.B.2.c (discussing redressability). Justice Kennedy and Souter concurred in the other portions of Justice Scalia's majority opinion, but Kennedy wrote a concurring opinion joined by Justice Souter that suggested they might take a different approach to standing issues in future cases. *Defenders*, 504 U.S. at 556, 579–81 (Kennedy, J., concurring).

²⁰⁰ Defenders, 504 U.S. at 562-63.

²⁰¹ Id. at 562-64 (quoting Whitmore v. Arkansas, 495 U.S. 149, 155 (1990)).

indefinite for them to have the requisite injury in fact required for standing.²⁰² Justice Kennedy, however, stated that a member of Defenders could have met the Court's standing requirements in several ways: by buying a plane ticket to visit these lands, setting a specific date to visit the habitat of the endangered species at issue, or visiting the lands on a regular basis.²⁰³

b. No Nexus Theories of Standing

Second, Justice Scalia's opinion rejected the three nexus theories of standing proposed by Defenders on the grounds that each was so implausible as to be unacceptable as a matter of law. 204 Both implicitly and explicitly, Justice Scalia demanded that plaintiffs demonstrate that they were located in relatively close geographical proximity to where alleged injuries occur,²⁰⁵ and, therefore, he rejected the nexus theories in part because they would have allowed plaintiffs to claim injuries from distant events that they had merely read about in a newspaper.²⁰⁶ Defenders had contended in its briefs that standing could be established by one of three alternative theories of causation: 1) the "ecosystem" nexus theory, which claimed that "any person who uses any part of a 'contiguous ecosystem' adversely affected by a funded activity has standing even if the activity is located a great distance away,"207 2) the animal nexus theory, which claimed that "anyone who has an interest in studying or seeing the endangered animals anywhere on the globe has standing,"208 and 3) the vocational nexus theory, which claimed that "anyone with a professional interest in [endangered] animals can sue."209 According to Justice Scalia's plurality opinion, "Under these [animal nexus and vocational nexus] theories, anyone who goes to see Asian elephants in the Bronx Zoo, and anyone who is a keeper of Asian elephants in the Bronx Zoo, has standing to sue."210 Justice Scalia concluded that the animal nexus and vocational nexus theories were

²⁰² See id. at 579-80 (Kennedy, J., concurring).

²⁰³ See id.; Hodas, supra note 64, at 466; Sunstein, supra note 135, at 201.

²⁰⁴ See Defenders, 504 U.S. at 566-67.

²⁰⁵ See id. at 565–66 ("[A] plaintiff claiming injury from environmental damage must use the area affected by the challenged activity and not an area roughly 'in the vicinity' of it.") (citations omitted); id. at 567 n.3 ("The dissent may be correct that the geographic remoteness . . . does not 'necessarily' prevent such a finding—but it assuredly does so when no further facts have been brought forward."); id. at 572 n.7 (rejecting "standing for persons who have no concrete interests affected—persons who live (and propose to live) at the other end of the country from [the environmental impact]"); Hodas, supra note 64, at 462–66 (discussing Justice Scalia's implicit and explicit requirement that plaintiffs demonstrate geographical proximity to alleged injury); Orr, supra note 151, at 383–86 (same); see also NWF, 497 U.S. 871, 887–89 (1990) (Scalia, J.) (rejecting "in the vicinity" allegations as too vague where plaintiff challenged the government reclassification of a large area of land)); supra notes 163–67 and infra note 392 and accompanying text (discussing geographical nexus requirement).

²⁰⁶ See Defenders, 504 U.S. at 565–67; Hodas, *supra* note 64, at 466 (discussing Justice Scalia's rejection of nexus theories).

²⁰⁷ *Defenders*, 504 U.S. at 565.

²⁰⁸ Id. at 566.

²⁰⁹ Id.

²¹⁰ Id.

"beyond all reason... [because] [i]t goes... into pure speculation and fantasy, to say that anyone who observes or works with endangered species, anywhere in the world, is appreciably harmed by a single project affecting some portion of that species with which he has no more specific connection." 211 Justice Scalia repudiated Defenders' ecosystem nexus theory as inconsistent with *Lujan v. National Wildlife Federation (NWF)*, 212 "which held that a plaintiff claiming injury from environmental damage must use the area affected by the challenged activity and not an area roughly 'in the vicinity of it." 213 He concluded that the ESA's protection of broad ecosystems did not change the Court's requirement that plaintiffs specify with sufficient particularity the geographical area where an alleged injury occurred, stating, "To say that the Act protects ecosystems is not to say that the Act creates (if it were possible) rights of action in persons who have not been injured in fact, that is, persons who use portions of an ecosystem not perceptibly affected by the unlawful action in question." 214

Justice Kennedy's concurring opinion, joined by Justice Souter, agreed that the three nexus theories proposed by Defenders in the case did not support its standing because there was no evidence that Congress intended the ESA to confer standing based on those nexus theories. However, the concurrence accepted as a matter of law "the possibility . . . that in different circumstances a nexus theory similar to those proffered here might support a claim to standing." He indicated that courts "must be sensitive to the articulation of new rights of action that do not have clear analogs in our common-law tradition." ²¹⁶

c. Redressability

Third, Justice Scalia concluded for a plurality of the Court that Defenders failed to meet the Constitution's redressability requirement because judicial relief would not necessarily stop the projects.²¹⁷ First, because the United States provided only a relatively small portion of the international funding—approximately ten percent—the termination of U.S. aid would not necessarily stop the dam projects:²¹⁸ "[I]t is entirely conjectural whether the nonagency activity that affects respondents will be altered or affected by the agency action they seek to achieve."²¹⁹ Second, it was not clear that U.S. funding agencies, who were not parties to the suit, would be bound by the district court's or the Secretary of Interior's order to stop the funding because the statute gave the Secretary only a consultative

²¹¹ *Id.* at 566-67.

²¹² 497 U.S. 871 (1990).

²¹³ Defenders, 504 U.S. at 565-66 (citing NWF, 497 U.S. at 887-89).

²¹⁴ Id.

²¹⁵ *Id.* at 579–80 (Kennedy, J., concurring).

²¹⁶ Id.

²¹⁷ *Id.* at 568–71 (Scalia, J.); *see also* Gatchel, *supra* note 162, at 95–98 (discussing the redressability issue in *Defenders*); Sunstein, *supra* note 135, at 200 (same).

²¹⁸ Defenders, 504 U.S. at 568-71.

²¹⁹ *Id*.

role, it was not clear that the Secretary's regulations could bind the funding agencies because they had the initial decision about when it was appropriate to consult the Secretary, and the funding agencies were not parties subject to the district court's order.²²⁰ Only three other justices—Chief Justice Rehnquist, Justice White and Justice Thomas—agreed with Justice Scalia that the case was not redressable.

Although he concurred in the judgment that the ESA did not apply overseas, Justice Stevens argued that the claim would be redressable because he assumed that if the Court required funding agencies to consult with the Secretary, the funding agencies would obey the Court's interpretation. ²²¹ In a dissenting opinion, Justice Blackmun, joined by Justice O'Connor, argued that the plaintiffs met the redressability requirement because there was a reasonable possibility that a judicial decision in the case might affect the dam construction projects. ²²² For example, because a threatened or actual withdrawal of U.S. engineering support resulting from a judicial decision might well persuade the foreign governments to reduce or stop the projects, there was a sufficient possibility that a judicial decision would achieve the plaintiff's goal of stopping the projects to establish redressability. ²²³ Both Justices Kennedy and Souter declined to reach the redressability issue, resulting in no majority decision on this issue. ²²⁴

d. The Concrete Injury Requirement and Separation-of-Powers Principles

Fourth and most importantly, Justice Scalia concluded that both Article II and Article III forbid Congress to give universal standing to every citizen regardless of injury to challenge in the federal courts the alleged failure of the executive branch to exercise its duty under Article II to faithfully execute the law.²²⁵ The court of appeals had relied on the citizen-suit provision of the ESA, which authorizes "any person [to] commence a civil suit on his own behalf: (A) to enjoin any person, including the United States and any other governmental instrumentality or agency... who is alleged to be in violation of any provision of this chapter."²²⁶ Justice Scalia concluded that statutes purporting to allow citizens to sue even if government action did not injure them in any way were unconstitutional as applied because

²²⁰ *Id.* The Agency for International Development took the position that it was bound to consult the Secretary only for domestic projects that might harm endangered species in the United States. *Id.*

²²¹ Id. at 584–85 (Stevens, J., concurring in judgment). Justice Scalia agreed that the agencies would likely obey a decision of the Supreme Court even if they were not technically bound to do so, but argued that the pertinent issue was whether they would have obeyed the district court's decision when they were not parties to the case and therefore not bound to do so, which was doubtful. See id. at 569–70 n.5 (Scalia, J.).

²²² *Id.* at 595–601 (Blackmun, J., dissenting).

²²³ Id. at 601.

²²⁴ See id. at 580 (Kennedy, J., concurring).

²²⁵ *Id.* at 571–78 (Scalia, J.).

²²⁶ 16 U.S.C. § 1540(g)(1) (1988).

standing requires that a plaintiff assert a concrete injury.²²⁷ Justice Scalia asserted that separation-of-powers principles restrict the authority of Congress to confer standing in citizen suits because the executive branch has the sole authority under Article II to execute laws if no one suffers a concrete injury.²²⁸ He stated, "The concrete injury requirement has... separation-of-powers significance,"²²⁹ so Congress cannot convert "the public interest in proper administration of the laws (specifically, in agencies' observance of a particular, statutorily prescribed procedure)... into an individual right by a statute that denominates it as such, and that permits all citizens ... to sue."²³⁰ Justice Scalia emphasized that "[v]indicating the *public* interest (including the public interest in government observance of the Constitution and laws) is the function of Congress and the Chief Executive," and that Congress may not transfer "from the President to the courts the Chief Executive's most important constitutional duty," that is, "to 'take Care that the Laws be faithfully executed."²³¹

Justice Scalia's concrete injury test, however, does not necessarily preclude broad citizen suits. Some commentators have argued that a concrete injury requirement does not prevent Congress from providing virtually universal standing through citizen suits if it simply authorizes a small reward or cash bounty for successful plaintiffs challenging private or government action, similar to a *qui tam* suit.²³² The first federal Congresses enacted several statutes authorizing either *qui tam* actions or informant's actions, which respectively allowed citizens either to bring civil suits against private parties on behalf of the government for violations of federal laws or to assist governmental suits, and provided successful plaintiffs or informants with a portion of any recoveries and fines.²³³

In his concurring opinion, Justice Kennedy, joined by Justice Souter, stated that Congress has significant, but not unlimited, discretion to define the injuries for which the public may sue.²³⁴ Justice Kennedy agreed with Justice Scalia that Article III's cases and controversies requirement does not allow Congress to authorize courts "to vindicate the public's nonconcrete interest in the proper administration of the laws. While it does not matter how many persons have been injured by the challenged action, the party bringing suit must show that the action injured him in a concrete and personal way."²³⁵ Justice Kennedy nevertheless maintained that "Congress"

²²⁷ Defenders, 504 U.S. at 571–78.

²²⁸ Id. at 577.

²²⁹ Id.

²³⁰ Id. at 576–77.

²³¹ Id.

²³² See Sunstein, supra note 135, at 223–24, 232–34 (proposing cash bounties or *qui tam* suits as way for Congress to give standing to citizen plaintiffs despite Justice Scalia's attempt to limit standing in *Defenders*).

²³³ See Vermont Agency v. United States ex rel. Stevens, 529 U.S. 765 (2000) (discussing history of qui tam and informers' suits in English common law and early American constitutional history); Jonathan E. Wells, Comment, Shouldn't Standing Be Closer to the Heart of Congressional Intent?, 49 EMORY L.J. 1359, 1364–65, 1375 (2000) (same).

²³⁴ Defenders, 504 U.S. at 580 (Kennedy, J., concurring).

²³⁵ *Id.* at 581.

has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before."²³⁶ Subsequently, numerous decisions have favorably cited this language in standing cases, including Judge Gould in his concurring opinion in *Covington.*²³⁷ In *Defenders*, however, Justice Kennedy determined that Congress had refused to "identify the injury it seeks to vindicate and relate the injury to the class of persons entitled to bring suit."²³⁸ Justice Kennedy's approach would likely allow Congress to provide standing for global warming injuries as long as a statute defined which types of harm from climate change comprise the requisite injury.

e. Procedural Injuries

In dictum, Justice Scalia addressed how the Court's concrete injury requirement would affect plaintiffs challenging alleged procedural errors of the government, particularly in NEPA cases. If a plaintiff has suffered or will suffer a concrete injury from a governmental action, Justice Scalia acknowledged that such a plaintiff may challenge a procedural error by a government agency.²³⁹ He stated in footnote seven that a plaintiff suffering or expected to suffer a concrete injury may challenge a procedural violation without meeting the "normal standards for redressability and immediacy" even if correcting the procedural error may not prevent the injury.

There is this much truth to the assertion that "procedural rights" are special: The person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy. Thus, under our case law, one living adjacent to the site for proposed construction of a federally licensed dam has standing to challenge the licensing agency's failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the dam will not be completed for many years.²⁴⁰

²³⁶ *Id.* at 580.

²³⁷ See infra notes 293, 433-41 and accompanying text.

²³⁸ Defenders, 504 U.S. at 580 (Kennedy, J., concurring).

²³⁹ See Defenders, 504 U.S. at 572–73 nn.7–8 ("We do *not* hold that an individual cannot enforce procedural rights; he assuredly can, so long as the procedures in question are designed to protect some threatened concrete interest of his that is the ultimate basis of his standing.").

²⁴⁰ Defenders, 504 U.S. at 572 n.7; see Buzbee, supra note 146, at 794–95, 803, 808–10, 820, 824 (discussing the analysis of standing criteria in "procedural rights" cases presented in footnote seven of Defenders); Gatchel, supra note 162, at 91–92 (same); Bruce Morris, How Footnote 7 in Lujan II May Expand Standing for Procedural Injuries, 9 NAT. RES. & ENV'T. 75, 75–77 (1995) (discussing lower court decisions interpreting standing criteria in procedural rights cases); Abate & Myers, supra note 162, at 364 (discussing examples in Defenders where a plaintiff asserting procedural error by the government would have standing). But see Christopher T. Burt, Comment, Procedural Injury Standing After Lujan v. Defenders of Wildlife, 62 U. Chi. L. Rev. 275, 284–85, 297–99 (1995) (criticizing dictum in footnote seven of Defenders as vague and arguably unconstitutional, but arguing that footnote seven is valid if it is understood to require that a procedural injury threatens a concrete interest of plaintiff);

Although footnote seven is technically dictum, a number of scholars have suggested that footnote seven may represent the thinking of a majority of the court because the dissenting justices in *Defenders* likely agreed with its analysis.²⁴¹ Without footnote seven, Justice Scalia's analysis of redressability and immediacy arguably would have raised serious questions about the viability of NEPA suits because a NEPA plaintiff can rarely demonstrate that an agency would likely change the substance of a proposed project if it remedies a procedural error in an environmental assessment.²⁴² Plaintiffs in NEPA cases and other procedural cases have often cited footnote seven as allowing them to meet relaxed standards for redressability and immediacy.²⁴³ Unfortunately, footnote seven does not clearly explain the extent to which redressability and immediacy requirements are waived in procedural rights cases, and thus leaves many unanswered questions.²⁴⁴ As

Douglas Sinor, *Tenth Circuit Survey: Environmental Law*, 75 DENV. U. L. REV. 859, 879 (1998) (criticizing footnote seven because it "is confusing and raises more questions than it answers").

[Defenders'] procedural injury dicta is not without its problems, however. At best, it is vague and provides little guidance for prospective plaintiffs and the lower courts; at worst, it eviscerates the standing requirements of the Constitution. The approach is, in the words of Justice Blackmun, "standardless." After [Defenders], the contours of the redressability and injury-in-fact standing requirements in procedural injury cases are unknown. The Court failed to answer whether redressability falls out entirely from the standing inquiry in procedural cases, or whether procedural plaintiffs must show something short of the "normal" standard for redressability. Even if the Court can constitutionally loosen the redressability requirement, the question of how to apply the requirement remains. The Court suggested that the "normal" standards of redressability need not be met. The normal requirement is that the plaintiff must show that the relief is likely to redress the injury. Under the Court's suggestion, does "likely" become "possible," or something else? The Court offers no guidance on this point. Similarly, the Court did not make it clear whether it intended completely to abandon the imminence component of the injury-in-fact requirement. The vagueness of the suggested approach is likely to lead to inconsistencies among the lower courts.

Burt, supra note 240, at 285; see also Gatchel, supra note 162, at 100 ("The Defenders opinion can be interpreted as either failing to indicate how footnote seven should be applied or as setting broad outer limits that are only approached infrequently. Using either interpretation, Defenders provides little guidance . . . for the more standard situations where plaintiffs complain of violations of procedural rights."); Sinor, supra note 240, at 879–81 ("Footnote seven, however, is confusing and raises more questions than it answers, since the court did not apply the standards it set forth . . . because [it] was not a procedural rights case. Thus, the lower courts are given the task of interpreting and applying the standards it set forth.") (citations omitted); Nelson, supra note 32, at 269 ("[The Defenders] discussion of procedural injuries only

²⁴¹ See Buzbee, supra note 146, at 808–10 (observing that footnote seven in *Defenders* is technically dictum, but likely represented views of the majority of the Court). But see Burt, supra note 240, at 276, 284–86, 297–99 (criticizing dictum in footnote seven of *Defenders* as vague and arguably unconstitutional, but arguing that footnote seven is valid if it is understood to require that a procedural injury threatens a concrete interest of plaintiff).

²⁴² See Buzbee, supra note 146, at 803, 808–10 (arguing footnote seven in *Defenders* was essential in preserving administrative suits where it is often difficult to show that an agency's proper compliance with procedure would change the substantive result).

²⁴³ See Buzbee, supra note 146, at 808–10 (discussing the use of footnote seven in NEPA cases); Sinor, supra note 240, at 881–89 (same, and arguing that the Tenth Circuit has adopted an effective and workable approach to interpreting footnote seven).

²⁴⁴ As summarized by one commentator,

discussed below in Part V, the circuits have split regarding how to apply footnote seven to procedural rights defendants in NEPA cases.²⁴⁵

C. A Return to Broader Standing: Federal Election Commission v. Akins

1. Justice Breyer's Majority Opinion

In its 1998 decision Federal Election Commission v. Akins (Akins), 246 the Court clarified its apparently conflicting decisions about whether plaintiffs who suffer common injuries are entitled to standing. In Akins, the issue was whether voters had standing to challenge a Federal Election Commission final decision that a lobbying group, the American Israeli Political Action Committee (AIPAC), was not a "political committee" within the definition of the Federal Election Campaign Act of 1971,247 and, therefore, was not required to disclose its donors, contributions, or expenditures.²⁴⁸ The Court concluded that voters' inability to obtain information for which the Act had required disclosure was a constitutionally "genuine 'injury in fact." In Akins, the Court determined that the plaintiff voters had suffered a "concrete and particular" injury in fact because they were deprived of the statutory right to receive designated "information [which] would help them . . . to evaluate candidates for public office."250 The Court determined that this harm was distinguishable from taxpayer standing cases, where a plaintiff rarely has standing to sue.²⁵¹

An important question in *Akins* was why the Court had permitted standing in some cases involving widespread injuries, but denied it in other cases when "the political process, rather than the judicial process, may provide the more appropriate remedy for a widely shared grievance." Justice Breyer's majority opinion explained that the Court denied standing for widely shared, generalized injuries only if the harm is both widely shared and also of "an abstract and indefinite nature—for example, harm to the

contributed to the existing confusion and uncertainty surrounding standing requirements for NEPA claims.").

²⁴⁵ See infra Part V.

²⁴⁶ 524 U.S. 11 (1998).

²⁴⁷ 2 U.S.C. §§ 431–456 (2000).

²⁴⁸ Akins, 524 U.S. at 13-18.

²⁴⁹ *Id.* at 21; Hodas, *supra* note 64, at 471.

²⁵⁰ Akins, 524 U.S. at 21; Hodas, supra note 64, at 471.

See, e.g., Asarco, Inc. v. Kadish, 490 U.S. 605, 616–17 (1989) (concluding for a plurality that a taxpayer suit would have been dismissed had the action initially been brought in federal court); United States v. Richardson, 418 U.S. 166, 176–77 (1974) (holding that a federal taxpayer did not have standing to seek disclosure of CIA expenditures based upon the Accounts Clause of the Constitution so that he could "properly fulfill his obligations as a member of the electorate in voting" because he was not injured in fact); Flast v. Cohen, 392 U.S. 83, 88 (1968) (holding that a federal taxpayer did not have standing to challenge spending allegedly in violation of Constitution); Cantrell v. City of Long Beach, 241 F.3d 674, 683–84 (9th Cir. 2001) (stating that federal courts require a taxpayer seeking standing to demonstrate direct injury in a case alleging mishandling of municipal or state tax funds); Hodas, *supra* note 64, at 471–72 (discussing the narrow scope of taxpayer standing).

²⁵² Akins, 524 U.S. at 23; Hodas, supra note 64, at 471.

'common concern for obedience to law."²⁵³ He maintained that the Court had denied standing if the injury is too abstract, but had allowed standing even if many people suffered the same harm as long as that harm is concrete.²⁵⁴ The *Akins* Court stated that "an injury... widely shared... does not, by itself, automatically disqualify an interest for Article III purposes. Such an interest, where *sufficiently concrete*, may count as an 'injury in fact.'"²⁵⁵ Justice Breyer's majority opinion in *Akins* concluded that a plaintiff who suffers a concrete actual injury, even though it is shared by many others, usually can meet the injury in fact requirement:

[T]he fact that a political forum may be more readily available where an injury is widely shared... does not, by itself, automatically disqualify an interest for Article III purposes.... This conclusion seems particularly obvious where (to use a hypothetical example) large numbers of individuals suffer the same common-law injury (say, a widespread mass tort), or where large numbers of voters suffer interference with voting rights conferred by law. We conclude that, similarly, the informational injury at issue here, directly related to voting, the most basic of political rights, is sufficiently concrete and specific such that the fact that it is widely shared does not deprive Congress of constitutional power to authorize its vindication in the federal courts. 256

Justice Breyer's opinion implied that Congress may grant standing to all citizens concretely harmed by a particular injury even if every other citizen is similarly adversely affected.²⁵⁷ In *Pye v. United States*,²⁵⁸ the Fourth Circuit summarized *Akins* as establishing that "so long as the plaintiff... has a concrete and particularized injury, it does not matter that legions of other persons have the same injury."²⁵⁹ Conversely, Justice Breyer concluded that the Constitution's generalized restrictions on Congress, such as the Accounts Clause,²⁶⁰ must be resolved by the political branches because there are no concrete standards for courts to apply.²⁶¹

2. Justice Scalia's Dissenting Opinion

Justice Breyer's majority opinion was fundamentally inconsistent with Justice Scalia's 1983 separation-of-powers and standing article, as well as the spirit of Justice Scalia's separation-of-powers arguments in *Defenders*.

²⁵³ Akins, 524 U.S. at 24 ("The abstract nature of the harm . . . deprives the case of the concrete specificity that characterized those controversies which were 'the traditional concern of the courts at Westminster', and which today prevents a plaintiff from obtaining what would, in effect, amount to an advisory opinion.") (citations omitted).

²⁵⁴ *Id.* at 24–25 (citations omitted).

²⁵⁵ Id. at 24. (emphasis added); see Covington, 358 F.3d 626, 651 (9th Cir. 2004) (Gould, J., concurring) (discussing Akins).

²⁵⁶ Akins, 524 U.S. at 24–25 (citations omitted).

²⁵⁷ Id.

²⁵⁸ 269 F.3d 459 (4th Cir. 2001).

²⁵⁹ Id. at 469.

²⁶⁰ U.S. Const. art. I, § 9, cl. 7 ("A regular statement and account of the receipts and expenditures of all public money shall be published from time to time.").

²⁶¹ Akins, 524 U.S. at 24–25; Hodas, supra note 64, at 472.

Justice Scalia's central argument was that the political branches, not the judiciary, should address broadly held grievances. Justice Breyer's majority opinion in *Akins* implicitly rejected Justice Scalia's conclusion in *Defenders* that "[t]o permit Congress to convert the undifferentiated public interest in executive officers' compliance with the law into an 'individual right' vindicable in the courts is to permit Congress to transfer from the President to the courts the Chief Executive's most important constitutional duty."²⁶³

Accordingly, Justice Scalia dissented in Akins. First, he contended that the majority's reasoning was flawed if Congress, by enacting a statute, could define an injury-in-fact, when the Constitution's requirements for the Judiciary did not.²⁶⁴ He also contended that the majority's distinction between taxpayers, who generally could not obtain standing, and voters, who could obtain standing, was "a silly distinction, given the weighty governmental purpose underlying the 'generalized grievance' prohibition viz., to avoid 'something in the nature of an Athenian democracy or a New England town meeting to oversee the conduct of the National Government by means of lawsuits in federal courts."265 Finally, he raised his strongest disagreement with the majority's analysis, arguing that the Court had obliterated the line between generalized grievances for which there should be no standing and particularized ones for which Article III intends standing.²⁶⁶ According to Justice Scalia, it is irrelevant whether generalized grievances are concrete or abstract because all "undifferentiated" grievances "common to all members of the public . . . must be pursued by political, rather than judicial, means."267

In his dissenting opinion in *Akins*, Justice Scalia went beyond his emphasis on concrete injuries in *Defenders* to argue that it was inappropriate to provide universal public standing at all because issues that are shared by the public at large belong to the political branches regardless of whether every citizen arguably receives a minor injury. In his *Akins* dissent, he rejected the majority's distinction between concrete and generalized grievances, and instead argued that all "undifferentiated" grievances "common to all members of the public... must be pursued by political, rather than judicial, means." Thus, he returned to the broader principle in his 1983 law review article that standing doctrine was a "crucial and inseparable element" of separation-of-powers principles and that more restrictive standing rules would limit judicial interference with the popularly elected legislative and executive branches. 269 Despite not addressing global

²⁶² Akins, 524 U.S. at 37 (Scalia, J., dissenting).

²⁶³ Id. at 36 (quoting *Defenders*, 504 U.S. 555, 577 (1992)). See generally Cass Sunstein, Information Regulation and Informational Standing: Akins and Beyond, 147 U. PA. L. REV. 613, 638–53 (1999) (discussing differences in standing philosophy between *Defenders* and *Akins*).

²⁶⁴ Akins, 524 U.S. at 36–37 (Scalia, J., dissenting).

²⁶⁵ *Id.* at 33 (citations omitted).

²⁶⁶ *Id.* at 35.

²⁶⁷ Id.

²⁶⁸ Id.

²⁶⁹ Scalia, supra note 185, at 881; see Percival, supra note 135, at 847.

warming specifically, Justice Scalia's view that courts should reject generalized grievances on standing grounds and instead leave such issues to the political branches would make it very difficult for plaintiffs to demonstrate standing to challenge the government's failure to regulate GHGs, except those who have unique injuries different from the public at large.²⁷⁰ Yet Justice Scalia, in footnote seven of *Defenders*, suggested a relaxed standard for procedural plaintiffs that in some instances could allow a plaintiff to challenge the government's failure to discuss global warming in a NEPA study.²⁷¹

IV. THE MAJORITY OPINION IN *COVINGTON*: THE PLAINTIFFS HAVE STANDING UNDER THE CAA AND RCRA

A. Majority Opinion

In *Covington*, the Ninth Circuit determined that the plaintiffs had satisfied the injury-in-fact requirement for Article III standing for their RCRA claims by alleging that the defendants had increased the risk of fires, explosions, groundwater contamination, scavengers, and disease-carrying vermin, thus harming the plaintiffs by failing to comply with RCRA requirements for operating a landfill.²⁷² Affirming the district court, the Ninth Circuit found.

The Covingtons live just across the road from the landfill. If the landfill is not run as required by RCRA, the Covingtons are directly confronted with the risks that RCRA sought to minimize: Fires, explosions, vectors, scavengers, and groundwater contamination, if such occur, threaten the Covingtons [sic] enjoyment of life and security of home. Violations of RCRA increase the risks of such injuries to the Covingtons. Such risks from improper operation of a landfill are in no way speculative when the landfill is your next-door neighbor. The Covingtons' factual showing of fires, of excessive animals, insects and other scavengers attracted to uncovered garbage, and of groundwater contamination, evidence a concrete risk of harm to the Covingtons that is sufficient for injury in fact. 273

Additionally, the court determined that the plaintiffs had satisfied the injury-in-fact requirement for Article III standing for the CAA by alleging that the defendants had mismanaged "white goods," i.e., appliances, disposed of at the landfill by not ensuring that chlorofluorocarbons (CFCs) were treated as required by the CAA and its regulations, 274 and, therefore had increased

²⁷⁰ See Hodas, supra note 64, at 473–78 (arguing that Justice Scalia's standing decisions, especially in *Defenders*, led lower courts to restrict standing in ways that would make it more difficult for climate change plaintiffs to obtain standing).

²⁷¹ See supra notes 239-40 and accompanying text.

²⁷² See Covington, 358 F.3d 626, 638–40 (9th Cir. 2004) (concluding that plaintiffs had standing under RCRA).

²⁷³ Id. at 638.

²⁷⁴ See 42 U.S.C. § 7671g (2000); 40 C.F.R. §§ 82.154(a), 82.156(f), 82.166(i), (m) (2004) (requiring removal or recapture of CFCs and other ozone-depleting substances before disposal

the risk that CFCs would leak and contaminate the plaintiffs' property.²⁷⁵ The district court had held that the Covingtons lacked standing for the alleged CAA violations because there was no evidence of a leak of ozone-depleting substances, and, therefore, no evidence that the CAA violations caused an injury to the Covingtons.²⁷⁶ The court of appeals disagreed with the district court's finding that there was no evidence of leaking because the plaintiffs had stated in their affidavits that they had observed liquids and gases leaking from the white goods.²⁷⁷ The Ninth Circuit reversed the district court's finding of no standing under the CAA, stating, "The district court's conclusion on this score cannot stand in this summary judgment context, where the Covingtons' evidence, even if contested, must be credited."²⁷⁸ Additionally, the Ninth Circuit concluded that the defendants had the burden of establishing that CFCs had not leaked from the appliances because they had failed to keep proper records.²⁷⁹

B. Judge Gould's Concurring Opinion

In his concurring opinion, Judge Gould addressed this more difficult question of whether the plaintiffs had standing to challenge the global impacts of the CFCs released from the landfill. Because the Covingtons "suffer no greater injury than any other person" from the global impacts of the CFCs from the landfill, the question is whether a plaintiff can meet standing requirements if he suffers a "widely shared injury." Judge Gould acknowledged that *Defenders* and some taxpayer standing cases suggest that widespread injuries to all are not "concrete and particularized" enough to give any individual plaintiff standing because "injury to all is injury to none" for standing purposes. 282

Judge Gould argued, however, that the Supreme Court's standing precedent as a whole, especially its *Akins* decision, suggested that a widespread injury can establish standing as long as the plaintiff's injury is sufficiently concrete and particularized.²⁸³ First, citing the *SCRAP* decision,²⁸⁴ he contended that it is wrong to deny standing to a plaintiff who

or recycling); *Covington*, 358 F.3d at 640–41 (discussing the CAA's requirements for disposal of CFCs); *id.* At 653 (Gould, J., concurring) (discussing the explicit congressional decision to allow citizen suits to enforce ozone protection requirements).

²⁷⁵ Covington, 358 F.3d at 640–41 (concluding that plaintiffs had standing under the CAA).

²⁷⁶ *Id*.

²⁷⁷ Id. at 640 n.19.

²⁷⁸ Id.

²⁷⁹ *Id.* ("[I]f, as here, a CAA claimant demonstrates a failure on the part of the disposer to compile appropriate paperwork showing that CFCs have been removed from the white goods, we presume that the white goods leaked CFCs unless and until the disposer affirmatively demonstrates otherwise.").

²⁸⁰ *Id.* at 650–55 (Gould, J., concurring).

²⁸¹ *Id.* at 650.

²⁸² *Id.* at 650–51 (citing United States v. Richardson, 418 U.S. 166, 176–77 (1974) (stating that generalized grievances of taxpayers do not give rise to a concrete injury)).

²⁸³ *Id.* at 651–52.

²⁸⁴ SCRAP, 412 U.S. 669, 688 (1973) ("To deny standing to persons who are in fact injured

has suffered real injuries because many others have suffered the same injury. Summarizing *Akins*, he concluded that "[a] concrete actual injury, even though shared by others generally is sufficient to provide injury in fact. It appears to be abstractness, not wide dispersal, of an injury that may prevent the injury from being sufficient to confer standing." Even Justice Scalia's *Defenders* decision suggested that a plaintiff who receives a particularized injury has standing to sue even if many suffer the same injury. Judge Gould concluded that the plaintiffs had suffered a particularized injury, stating, "The increased risk of skin cancer, cataracts, and/or a suppressed immune system affect the Covingtons in a personal and individual way. Because the asserted injury is so clearly particularized, my analysis focuses more on whether the injury is sufficiently concrete in light of the widespread injury." See the same injury is sufficiently concrete in light of the widespread injury.

Under the *Akins* analysis, Judge Gould concluded that "the injury suffered by the Covingtons is concrete rather than 'abstract and indefinite." ²⁸⁹ He gave several reasons for his conclusion:

First... the scientific evidence shows a marginal increase in the risk of serious maladies from increased UV-B radiation that results from the landfill's release of CFCs. I recognize that the environmental follies and errors committed at one landfill in rural Idaho, no matter how egregious, can cause only a small increase in risk to the world, including threat to the Covingtons. But the size of the injury to the environment, even if small from improper CFC releases at one landfill, would appear to have no bearing on whether the increased risk to the Covingtons is "concrete." Here, if ozone is lost, more radiation makes it through the atmosphere to create a risk of higher incidence of skin cancer, cataracts, and/or a depressed immune system. These are deadly serious maladies, and the risk of such grave harms minimizes the required probability of their occurrence for injury in fact purposes. Thus the Covingtons' exposure and fear of exposure to heightened risk of such harms appear to be concrete injuries. ²⁹⁰

Second, Judge Gould emphasized that in the 1990 Amendments to the CAA, Congress had specifically prohibited the disposal of refrigerants in a manner that allows CFCs to enter the environment and required EPA to promulgate regulations to regulate the disposal and recycling of such CFCs.²⁹¹ Furthermore, he observed that "Congress *explicitly* decided that any citizen could sue to enforce these laws."²⁹² Citing Justice Kennedy's

because many others are also injured, would mean that the most injurious and widespread . . . actions could be questioned by nobody. We cannot accept that conclusion.").

²⁸⁵ Covington, 358 F.3d at 651–52 (Gould, J., concurring).

²⁸⁶ Id. at 651 (citing Akins, 524 U.S. 11, 24 (1998)).

²⁸⁷ Id. at 651–52 (citing Defenders, 504 U.S. 555, 560 & n.1 (1992)).

²⁸⁸ Id. at 652.

²⁸⁹ *Id*.

²⁹⁰ Id. (citations omitted)

²⁹¹ Id. at 653 (citing 42 U.S.C. § 7671g (2000); 40 C.F.R. §§ 82.156(f); 82.166(i), (m) (2004)).

²⁹² Covington, 358 F.3d at 653 (Gould, J., concurring) (citing 42 U.S.C. §§ 7604(a)(1), 7604(f)(3) (2000)).

concurring opinion in *Defenders* that Congress has the broad power to define injuries, ²⁹³ Judge Gould concluded that "[t]he Covingtons' asserted harms fall within the injuries recognized by Congress. The Covingtons, as part of the public, have a corresponding right to vindicate their statutory protections." ²⁹⁴ He cited several cases, including *Akins*, that had relied on congressional intent in the statute to define the types of injuries and harms that establish standing. ²⁹⁵ He concluded that Congress had recognized "the individual nature of this harm by an explicit grant of a right to citizen suit when interested officials do not timely act to protect the air." ²⁹⁶

Third, Judge Gould argued that the Supreme Court's decision *Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc. (Laidlaw)*²⁹⁷ had "held that even less concrete injury than present here is sufficient for standing purposes" by focusing on whether the plaintiffs had "reasonable concerns" about pollution rather than whether the pollution caused actual harm to the environment:²⁹⁸

If subjective fear of river pollution alone is enough for injury in fact, then a fortiori objective and certain increased risks of skin cancer, cataracts, and depressed immune systems may satisfy the injury in fact standard.

For these reasons, I believe that the Covingtons' injury from increased risks of maladies caused by ozone depletion, which will follow from mishandling of white goods at the landfill, is concrete and particularized. And, upon analysis, the remaining elements of constitutional standing appear satisfied.²⁹⁹

He concluded that there is causation because "[t]here is a scientifically proven link between CFCs and ozone-depletion" and Congress had recognized the significance of the risk by enacting legislation to regulate CFCs. 300

Finally, he determined that "the injury is imminent and redressable." ³⁰¹ Judge Gould maintained that the injury to the plaintiffs from the release of

²⁹³ Id. at 653 (quoting *Defenders*, 504 U.S. 555, 580 (1992) (Kennedy, J., concurring)).

²⁹⁴ Id.

²⁹⁵ *Id.* (citing *Akins*, 524 U.S. 11, 22 (1998) (noting that the statute at issue "[sought] to protect individuals such as respondents from the kind of harm they say they have suffered")); see also Friends of the Earth, Inc. v. Gaston Copper Recycling, Corp., 204 F.3d 149, 156 (4th Cir. 2000) (en banc) (noting that the plaintiff "alleged precisely [those] types of injuries that Congress intended to prevent"); Baur v. Veneman, 352 F.3d 625, 635 (2d Cir. 2003) ("[T]here is a tight connection between the type of injury which [the plaintiff] alleges and the fundamental goals of the statutes which he sues under—reinforcing [his] claim of cognizable injury.") In a footnote, Judge Gould cited several law review articles that concluded Congress has significant discretion to define the injuries that give rise to standing. *Covington*, 358 F.3d at 653 n.9 (Gould, J., concurring).

²⁹⁶ Covington, 358 F.3d at 653 (Gould, J., concurring).

²⁹⁷ 528 U.S. 167, 181, 183–84 (2000) ("[T]he affiant members' reasonable concerns about the effects of those discharges, directly affected those affiants' recreational, aesthetic, and economic interests.").

²⁹⁸ Covington, 358 F.3d at 653 (Gould, J., concurring).

²⁹⁹ Id. at 653-54 (citing Laidlaw, 528 U.S. 167, 181, 183-84 (2000)).

³⁰⁰ Id. at 654.

³⁰¹ *Id.*

CFCs is imminent because the release of CFCs immediately increases their risk of intensified exposure to UV-B radiation. Furthermore, he concluded that the injury is redressable under *Laidlaw*'s holding that civil penalties payable to the government may directly redress a plaintiff's injuries even if a court does not issue an injunction against a defendant because such penalties may redress a plaintiff's injuries by abating current violations and deterring future ones by a defendant. Additionally, Judge Gould determined that the civil penalties authorized under the CAA against those who mishandle CFCs would deter future violations by the defendants.

Judge Gould conceded that some commentators and judges would likely argue that courts should for prudential reasons refuse standing for injuries that are so widespread that virtually every person in the world is affected, both because such minimal standing requirements could lead to an unreasonably large number of suits and because the political branches are better equipped to address such suits.³⁰⁵ In a footnote, probably thinking of Justice Scalia's approach to standing issues, Judge Gould acknowledged that "[a] respectable counterpoint would be the theory that injury to all does not justify private litigation and may be redressed only by the political branches, or the federal government's institution of litigation."³⁰⁶ Judge Gould, however, argued that there was strong precedent for allowing victims of widespread injuries to have standing to sue if they have suffered concrete and particular injuries rather than mere generalized harms:

The Supreme Court's standing precedents, when sensibly read as a whole, may reject the idea that "injury to all is injury to none." A widespread injury, in itself, is no bar to constitutional standing. The landfill has increased the Covingtons' risk of UV-B related health maladies. I see nothing in the Constitution or in Supreme Court precedent that would prevent the Covingtons from having constitutional standing on that basis alone. 307

If suits addressing ozone destruction became too numerous and burdensome on the judiciary, which he believed to be unlikely, Judge Gould

³⁰² Id.

³⁰³ Laidlaw, 528 U.S. at 174, 185–86 ("To the extent that [civil penalties] encourage defendants to discontinue current violations and deter them from committing future ones, they afford redress to citizen plaintiffs who are injured or threatened with injury as a consequence of ongoing unlawful conduct.").

³⁰⁴ Covington, 358 F.3d at 654 (Gould, J., concurring) (citing Laidlaw, 528 U.S. at 185–86).

³⁰⁵ See, e.g., Duke Power, 438 U.S. 59, 80 (1978) (stating that a court may deny standing if a suit would raise "general prudential concerns 'about the proper—and properly limited—role of the courts in a democratic society.' Thus, we have declined to grant standing where the harm asserted amounts only to a generalized grievance shared by a large number of citizens in a substantially equal measure." (citing Warth v. Seldin, 422 U.S. 490, 498 (1975)); David Pettit, Commentary, Standing at a Distance, Andrews Envel. Littig. Rep., May 21, 2004, at 12, 2004 WL 213210 (disagreeing with Judge Gould's argument for standing for plaintiffs who suffer injuries common to virtually everyone—like injuries from global ozone destruction—and suggesting that courts impose prudential standing limits).

³⁰⁶ Covington, 358 F.3d at 655 n.12 (Gould, J., concurring).

³⁰⁷ Id. at 655 (footnote omitted).

conceded that courts could impose prudential limits on such suits even if plaintiffs have suffered some minimal injury in fact:

If courts would accept personal standing based solely on ozone depletion claims, most likely future cases would still follow the mold in this case: that is, concerned neighbors who witness ongoing violations of federal law designed to minimize release of CFCs can be expected to sue to stop such violations. If this is incorrect, however, the courts would have the ability to limit the scope of permissible litigation through the application of the prudential standing doctrine. 308

Because numerous people may receive concrete injuries from a global pollution problem, Judge Gould suggested it may be necessary to limit suits to those who have relatively direct injuries, e.g., the Covingtons, or, perhaps, to those who can show that their injuries are more serious than most other citizens, e.g., an Alaska Native directly harmed by melting permafrost.³⁰⁹

V. NEPA AND STANDING: THE SPLIT IN THE CIRCUITS AND CLIMATE CHANGE

There is currently a split in the circuits regarding the test for standing under NEPA.³¹⁰ Although a divided D.C. Circuit decision in 1990 concluded that an environmental group had standing to raise global warming issues, ³¹¹ in 1996, an en banc D.C. Circuit decision overruled the standing criteria used in the 1990 decision and required plaintiffs to present evidence showing a "substantial probability" of injury to obtain standing, which would make it difficult but not impossible for future climate change plaintiffs to achieve standing in that circuit.³¹² Conversely, the Ninth and Tenth Circuits have explicitly rejected the more stringent standard for NEPA standing now used in the D.C. Circuit.³¹³ This Article concludes that the more liberal standing test for NEPA cases used in the Ninth and Tenth Circuits is appropriate under footnote seven of *Defenders* and is consistent with Congress's intent in NEPA that federal agencies address all significant environmental impacts caused by their actions.³¹⁴

A. Basics of NEPA: Evaluating Environmental Impacts and Alternatives

NEPA requires that federal agencies "include in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment, a detailed

³⁰⁸ *Id.* at 654–55 (citing Allen v. Wright, 468 U.S. 737, 750–51 (1984)); *see also id.* at 655 n.12 (conceding courts could use prudential concerns to limit suits).

³⁰⁹ See supra notes 305-08 and accompanying text.

³¹⁰ See infra Part V.

³¹¹ City of Los Angeles, 912 F.2d 478 (D.C. Cir. 1990), overruled by Florida Audubon, 94 F.3d 658 (D.C. Cir. 1996) (en banc); see infra Part V.B.

³¹² Florida Audubon, 94 F.3d 658 (D.C. Cir. 1996); see infra Part V.C.

³¹³ See infra Part V.D.

³¹⁴ See infra Parts V.E, VII.

statement by the responsible official on the environmental impact of the proposed action."³¹⁵ This statement is commonly known as an environmental impact statement (EIS) and is only required if the project has "significant" environmental impacts.³¹⁶ An agency first prepares an environmental assessment (EA), typically a short report, to determine if the project will create significant environmental impacts and requires an EIS, which is needed for less than one percent of federal actions—approximately 400 to 500 EISs out of a total of 50,000 EAs.³¹⁷ In the remaining 99 percent of all assessments, an agency makes a finding of no significant impact (FONSI), which ends the assessment process.³¹⁸

NEPA serves the dual purposes of 1) "inject[ing] environmental considerations into the federal agency's decisionmaking process" and 2) "inform[ing] the public that the agency has considered environmental concerns in its decisionmaking process." An agency must consider any significant environmental impacts of the proposed action. Additionally, it must conduct a "rigorous analysis" of reasonable alternatives to the proposed plan, including a "substantial treatment" of these alternatives in comparison to the proposed plan, and discuss why it selected the proposal rather than the alternatives. 321

^{315 42} U.S.C. § 4332(2)(C) (2000).

³¹⁶ See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989); 40 C.F.R. §§ 1502.1–.25 (2004); Ilyssa Birnbach, Note, Newly Imposed Limitations on Citizens' Right to Sue for Standing in a Procedural Rights Case, 9 FORDHAM ENVIL. L.J. 311, 313–15 (1998) (summarizing NEPA and the environmental impact inquiry); Nelson, supra note 32, at 255–56; Orr, supra note 151, at 379 (same).

³¹⁷ See 40 C.F.R. § 1501.4 (2004) (discussing whether to prepare an EIS, depending on finding significant environmental impacts); Bradley C. Karkkainen, *Toward a Smarter NEPA: Monitoring and Managing Government's Environmental Performance*, 102 COLUM. L. REV. 903, 909–10 (2002) ("Federal agencies annually conduct approximately 50,000 EAs leading to 'Findings of No Significant Impact' (or 'FONSIs,' in the NEPA jargon); in contrast, only about 500 EISs are produced each year.").

³¹⁸ See 40 C.F.R. §§ 1501.4(e), 1508.13 (2004) (discussing when to prepare a FONSI, when action will not have any significant environmental impacts); Karkkainen, *supra* note 317, at 909–10.

³¹⁹ Catron County Bd. of Comm'rs v. United States Fish & Wildlife Serv., 75 F.3d 1429, 1434 (10th Cir. 1996); see Birnbach, supra note 316, at 314–15; Nelson, supra note 32, at 255–56.

³²⁰ Seattle Audubon Soc'y v. Espy, 998 F.2d 699, 703 (9th Cir. 1993) (using a two-part test to decide whether an agency has adequately evaluated environmental impacts: 1) whether the EIS contains a "reasonably thorough discussion of the significant aspects of the probable environmental consequences," and 2) whether the agency has "taken a 'hard look' at a decision's environmental consequences"); see also Birnbach, supra note 316, at 316–17; Nelson, supra note 32, at 255.

^{321 42} U.S.C. § 4332(2)(C)(iii) (2000) (requiring an environmental assessment to consider "alternatives to the proposed action"); 40 C.F.R. § 1502.14 (2004) (stating that the consideration of "alternatives" is the "heart" of an EIS), 40 C.F.R. § 1505.2 (stating that the agency has duty in its record of decision to discuss why it selected its proposal instead of alternatives); Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, 435 U.S. 519, 551 (1978) (requiring the agency to evaluate "reasonable" alternatives in an EIS, but not "uncommon or unknown" alternatives); Sierra Club v. Marita, 46 F.3d 606, 616 (7th Cir. 1995) (requiring the agency conducting an EIS to engage in "rigorous analysis" and "substantial treatment" of alternatives to the proposed plan); Birnbach, *supra* note 316, at 316; Bradford C. Mank, *Title VI and Environmental Justice: Making Recipients Justify Their Siting Decisions*, 73 Tul. L. Rev. 787,

The statute is purely procedural and a court may not reject an EA or EIS because the judge believes that the agency's decision to build a project is unwise; judicial review is limited to determining whether the agency adequately evaluated a proposal's environmental impacts.³²² For example, the agency must adequately discuss ways to mitigate the impacts of the proposed action, but is not required to actually implement mitigation techniques.³²³ An agency must consider and discuss reasonable alternatives to a proposed project or action but does not have to select the least environmentally damaging alternative.³²⁴

Because NEPA does not provide for a private right of action, citizens must sue under the APA to challenge a federal agency's alleged failure to comply with NEPA.³²⁵ Under the APA, a plaintiff has standing to sue an agency if he or she is "adversely affected" by an agency action.³²⁶ A plaintiff has the burden of proving that an agency's decision not to discuss an allegedly significant environmental issue or alternative, or to issue a FONSI instead of preparing an EIS, was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."³²⁷

^{819, 821–22 (1999) (}discussing NEPA's requirement that the agency examine reasonable alternatives to a proposed project).

³²² See Robertson, 490 U.S. at 350 ("NEPA itself does not mandate particular results, but simply prescribes the necessary process."); Birnbach, supra note 316, at 315–17; Nelson, supra note 32, at 257 ("Therefore, while environmental groups can challenge the procedural adequacy of an EIS, they cannot use the courts to impose or require any particular result."), 279–80; see also Orr, supra note 151, at 379 ("Since NEPA imposes only procedural requirements on governmental agencies, NEPA lawsuits typically challenge shortcomings in EIS preparation procedures.").

³²³ See 40 C.F.R. § 1502.16(h) (2004) (requiring the agency to discuss mitigation methods); See Robertson, 490 U.S. at 352–53 (holding that the agency has a duty in an EIS to discuss mitigation measures, but is not required to implement them); Mank, supra note 321, at 829–31 (stating that agencies have a duty to discuss mitigation measures, but no duty to implement them unless they promise to do so). An agency may be bound in some circumstances to implement mitigation measures that it has publicly promised to adopt, especially if the agency has stated in a FONSI that a project or action will not have significant impacts because it will implement certain mitigation actions. See Mank, supra note 321, at 830–31 (discussing and citing cases regarding when an agency's promise to implement mitigation measures is enforceable).

³²⁴ See 40 C.F.R. § 1505.2 (2004) (stating that the agency has a duty in its record of decision to discuss why it selected its proposal instead of alternatives); Stephen M. Johnson, *NEPAs and SEQAs in the Quest for Environmental Justice*, 30 Loy. L.A. L. Rev. 565, 577 (1997) (discussing decisions concluding that an agency does not have to choose the less harmful alternative).

³²⁵ Birnbach, *supra* note 316, at 311; Nelson, *supra* note 32, at 256 n.10; Silvia L. Serpe, Note, *Reviewability of Environmental Impact Statements on Legislative Proposals After* Franklin v. Massachusetts, 80 CORNELL L. Rev. 413, 413 (1995).

³²⁶ 5 U.S.C. § 702 (2000) ("A person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof."); see also Data Processing, 397 U.S. 150, 153 (1970) (requiring plaintiff seeking standing under the APA to demonstrate that his suit is "arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question"); Nelson, supra note 32, at 256 n.10.

³²⁷ See 5 U.S.C. § 706(2)(A) (2000) (requiring the reviewing court to evaluate whether an agency decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law"); DANIEL R. MANDELKER, NEPA LAW AND LITIGATION § 4.51 (2d ed. 2004)

B. City of Los Angeles

In its 1990 decision, City of Los Angeles v. National Highway Safety Administration, 328 which was decided two years before Defenders, a majority of a divided D.C. Circuit three-judge panel concluded that the Natural Resources Defense Council (NRDC) had standing to challenge the failure of the National Highway Traffic Safety Administration (NHTSA) to consider the impacts of global warming when it decided that it was not necessary to prepare an EIS on setting Corporate Average Fuel Economy (CAFE) standards for model year 1989 at 26.5 miles per gallon (mpg), one mpg below the presumptive level of 27.5 set by Congress.³²⁹ A different majority, however, concluded on the merits that not enough evidence of harm from global warming from the 26.5 mpg standard existed to require NHTSA to prepare an EIS.330 Then-Judge Ruth Bader Ginsburg was the key swing vote in this case, agreeing with Judge Wald that NRDC had standing to challenge NHTSA's alleged procedural failure to prepare an EIS, but agreeing with Judge D.H. Ginsburg that NHTSA's determination on the merits that it did not need to prepare an EIS addressing the impacts on global warming was not arbitrary and capricious, although a "close question" according to Judge Ruth Bader Ginsburg. 331

The NRDC complained that the agency "should have prepared an EIS in order to consider the adverse climatic effects of the increase in fossil fuel consumption that would result from setting a CAFE standard lower than 27.5 mpg" because the less stringent standard would result in greater fuel usage and GHG emissions by 1989 model year cars, which would allegedly "lead to a global increase in temperatures, causing a rise in sea level and a decrease in snow cover that would damage the shoreline, forests, and agriculture of California." According to NRDC, global warming resulting from less stringent CAFE standards would injure the economic and recreational interests of its members in California. 333

⁽stating that a majority of courts place the burden of proof on plaintiffs in NEPA cases and listing cases); Mank, *supra* note 321, at 821 (stating that a majority of NEPA decisions place the burden on plaintiff to show that an EIS is inadequate). *See generally Bennett*, 520 U.S. 154, 174–179 (1996) (discussing "arbitrary and capricious" standard under APA).

³²⁸ 912 F.2d 478 (D.C. Cir. 1990), *overruled by Florida Audubon*, 94 F.3d 658 (D.C. Cir. 1996) (en banc).

³²⁹ *Id.* at 482–83; Hodas, *supra* note 64, at 473–75. There was a separate petition by various city and state petitioners, including the City of Los Angeles, which challenged NHTSA's decision under NEPA not to prepare an EIS covering its Corporate Average Fuel Economy (CAFE) standards for model years (MYs) 1987–1988. *City of Los Angeles*, 912 F.2d at 481–82. "As to MYs 1987 and 1988, we hold that the city and state petitioners, based on their obligations under the Clean Air Act, have standing to sue under NEPA on air pollution grounds, but that their challenge fails on the merits." *Id.*

³³⁰ City of Los Angeles, 912 F.2d at 478, 484–490 (upholding agency analysis of fuel consumption standard); see Hodas, supra note 64, at 474.

³³¹ City of Los Angeles, 912 F.2d at 504 (Ginsburg, Ruth B., J., concurring).

³³² See id. at 483 (Ginsburg, D.H., J., dissenting in part).

³³³ Id.

In *City of Los Angeles*, the majority stated that an agency's failure to prepare an EIS causes injury to a plaintiff if the agency fails to assess a "reasonable risk" that environmental damage could occur in the plaintiff's geographical location: "The procedural and informational thrust of NEPA gives rise to a cognizable injury from denial of its explanatory process, so long as there is a reasonable risk that environmental harm may occur." Using a two-part test from the Ninth Circuit for standing in NEPA cases, the *City of Los Angeles* court first required a plaintiff to demonstrate that the "agency's failure to prepare an EIS . . . 'creates a risk that serious environmental harms will be overlooked." The second part mandated that a plaintiff prove that he "ha[s] a sufficient geographical nexus to the site of the challenged project that he may be expected to suffer whatever environmental consequences the project might have."

Chief Judge Wald, with Judge Ruth Bader Ginsburg concurring, concluded that the NRDC plaintiffs had demonstrated an injury under the two-part standing test because NHTSA's "failure to prepare an EIS explaining the effects of the rollbacks on global warming presents the risk of overlooking an environmental injury that will personally affect its members."337 Judge Wald concluded that the plaintiffs had demonstrated a "geographical nexus" between their alleged injuries and global warming by showing that their members living in coastal and agricultural locations would be harmed by a warmer climate's effect on coastal and agricultural resources even though "the effects of a change in global atmosphere would obviously be felt throughout this country, and indeed, the world."338 The causation prong of the standing test was met because "[n]o one disputes the causal link between carbon dioxide and global warming" and the agency decision to reduce the fuel economy standard would increase these emissions. 339 To meet the causation and redressability requirements, "NRDC had only to show some likelihood that a full EIS would influence [the agency's decision."340

Judge D.H. Ginsburg dissented from the majority's conclusion that NRDC had standing for its global warming claim.³⁴¹ Although acknowledging that NRDC's "allegations make out injury indeed," he contended that "NRDC has failed to explain how that injury can be traced causally to the challenged decision and how the relief it seeks could redress the harm it foresees."³⁴² He argued that the causation requirements for both traceability and redressability were usually similar.³⁴³ He contended that the causation

³³⁴ Id. at 492 (Wald, C.J., dissenting in part).

³³⁵ *Id.* at 492 (quoting City of Davis v. Coleman, 521 F.2d 661, 671 (9th Cir. 1975)).

³³⁶ *Id*.

³³⁷ Id. at 494.

³³⁸ Id.

³³⁹ Id. at 495-97.

³⁴⁰ Id. at 498.

³⁴¹ *Id.* at 483–84 (Ginsburg, D.H., J., dissenting in part).

³⁴² Id. at 483.

³⁴³ *Id.* (citing Haitian Refugee Center v. Gracey, 809 F.2d 794, 801 (D.C. Cir. 1987) (opinion of Bork, J.); Allen v. Wright, 468 U.S. 737, 753 n.19 (1984)).

requirements for both traceability and redressability required NRDC to allege and then prove that NHTSA's decision to reduce the CAFE standard from 27.5 mpg to 26.5 mpg would have an "identifiable" "marginal impact" on global warming, and not simply to assert that fossil fuel emissions cause global warming. Because "NRDC failed to allege that a 1.0 mpg reduction would produce any marginal effect on the probability, the severity, or the imminence of global warming," he concluded that it did not have standing to raise any global warming issues. He criticized the majority's relaxed approach to causation that allowed NRDC to simply allege that fossil fuel emissions cause global warming and that CAFE standards are a part of the overall problem because under the majority's standing methodology, "the standing requirement would, as a practical matter, have been eliminated for anyone with the wit to shout 'global warming' in a crowded courthouse." 140

The judges in the majority explicitly rejected Judge D.H. Ginsburg's strict approach to causation because it "confus[es] the standing determination with the assessment of [the] case on the merits." Quoting *Duke Power*, they questioned Judge D.H. Ginsburg's strict causation test by observing that "[t]o meet the causal nexus, petitioners need only show that the alleged injury is 'fairly traceable' to the proposed action." To avoid conflating standing with assessing the merits, they warned "that where, as here, the relevant harms are probablistic and systemic, with widespread impact, courts must be especially careful not to manipulate the causation requirements of standing so as to prevent the anticipated regulatory beneficiaries from gaining access to court."

Rejecting the dissenting opinion's demand that NRDC demonstrate a close causal nexus between the CAFE standard change and the harmful effects of global warming, the majority asserted that "Judge D.H. Ginsburg is wrong in asserting that NRDC must establish or even allege with precision the cause-and-effect relationship between the CAFE rollback and the serious environmental harms of global warming; our precedents require only that it show a reasonable likelihood that if NHTSA performed an EIS, it would arrive at a different conclusion about the CAFE rollback." Even though a one mpg change in the CAFE standard would only result in a one percent increase in total U.S. GHG emissions, the majority determined that NRDC had met the "reasonable likelihood" of a "different conclusion" standard. The majority rejected Judge D.H. Ginsburg's demand for precise causal proof because such a demanding standard would cause courts to exclude all

³⁴⁴ Id. at 484.

³⁴⁵ *Id.*

³⁴⁶ Id.

³⁴⁷ Id. at 495 (Wald. C.J., dissenting in part).

³⁴⁸ *Id.* (quoting *Duke Power*, 438 U.S. 59, 72 (1978)).

³⁴⁹ See id. at 495 n.5 (citing Cass Sunstein, Standing and the Privatization of Public Law, 88 Colum. L. Rev. 1432, 1463 (1988); Daniel Meltzer, Deterring Constitutional Violations by Law Enforcement Officials: Plaintiffs and Defendants as Private Attorneys General, 88 Colum. L. Rev. 247, 304 (1988) (making the same argument in the context of constitutional claims)).

³⁵⁰ See id. at 497.

³⁵¹ *Id*.

but the simplest evidence in environmental cases, would result in courts ignoring "virtually any contributory cause to the complex calculus of environmental harm . . . as too small to supply the causal nexus required for standing, and would call into question cases where we have found standing in the past." Furthermore, because the appropriate causation standard was "some likelihood" that preparing an EIS would influence the ultimate decision, the majority concluded that the proper redressability standard is not whether changing the CAFE decision would reduce global warming, but whether "an EIS would redress its asserted injury, i.e., that any serious effects in global warming will not be overlooked." 354

C. Florida Audubon: Following D.H. Ginsburg's Dissent

1. Majority Opinion

In 1996, in *Florida Audubon Society v. Bentsen* (*Florida Audubon*), ³⁵⁵ the D.C. Circuit in an en banc decision overruled *City of Los Angeles* and essentially adopted the standing approach in Judge D.H. Ginsburg's dissenting opinion. ³⁵⁶ The *Florida Audubon* majority adopted a four-part test for procedural rights plaintiffs that was far more restrictive than the two-part test of *City of Los Angeles.* ³⁵⁷ Most importantly, the standing test for NEPA and other procedural rights plaintiffs under *Florida Audubon* is arguably more restrictive than and therefore inconsistent with at least the spirit of Justice Scalia's statement in footnote seven of his *Defenders* opinion that "[t]he person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy." ³⁵⁸ Unfortunately, the D.C. Circuit continues to apply *Florida Audubon*'s strict four-part standard for standing in procedural rights cases. ³⁵⁹

In *Florida Audubon*, the plaintiffs were environmental groups challenging the refusal of the Treasury Department and its Internal Revenue Service (IRS) to prepare an EIS on the environmental impacts of a tax credit for ethyl-tertiary butyl ether (ETBE), a fuel additive derived from plant-based ethanol.³⁶⁰ The plaintiffs contended that the tax credit for ETBE

³⁵² Id. at 498.

³⁵³ Id.

³⁵⁴ Id. at 499.

^{355 94} F.3d 658 (D.C. Cir. 1996) (en banc).

³⁵⁶ See Hodas, supra note 64, at 476–78.

³⁵⁷ See Birnbach, supra note 316, at 324–26 (discussing four-part test for standing in procedural rights cases); Orr, supra note 151, at 390–91 (same).

³⁵⁸ See Defenders, 504 U.S. 555, 572 n.7 (1992); Birnbach, supra note 316, at 312–13, 323–36 (arguing that *Florida Audubon* is inconsistent with *Defenders* in demanding more proof than necessary in determining causation and standing for procedural rights plaintiffs).

³⁵⁹ See, e.g., Crete Carrier Corp. v. Envtl. Prot. Agency, 363 F.3d 490, 492–93 (D.C. Cir. 2004) (applying *Defenders* and *Florida Audubon*); Nelson, *supra* note 32, at 273–76 (discussing the Ninth Circuit's relaxed standing requirements in NEPA cases and comparing them to strict standing requirements in D.C. Circuit).

³⁶⁰ Florida Audubon, 94 F.3d at 662; see also Orr, supra note 151, at 387-89 (summarizing

would increase production of corn, sugar cane, and sugar beets that are the natural sources for the ethanol and its derivative ETBE, and that increased production of these crops would in turn harm neighboring wildlife areas that the plaintiffs used for recreation and aesthetic enjoyment.³⁶¹ After the district court granted summary judgment in favor of the government because it concluded that the plaintiffs lacked standing, a divided threejudge panel of the D.C. Circuit, in an opinion by Judge Rogers, reversed the district court and concluded that the plaintiffs' allegations fulfilled applicable standing requirements for both injury in fact and causation under the standard in City of Los Angeles because the agencies' preparation of an EIS might result in the tax credit being canceled or adjusted. 362 After granting the agencies' motion for en banc review, 363 the D.C. Circuit reversed the panel decision and overruled Judge Wald's standing test in City of Los Angeles. 364 Explicitly adopting Judge D.H. Ginsburg's dissenting opinion in City of Los Angeles, the en banc majority stated "that a plaintiff must show a causal connection between the challenged change in federal regulation—and the incremental environmental effect the new regulation would allegedly cause—and the alleged injury to the particularized interests of the plaintiff."365

a. Particularized Injury

A majority of the en banc *Florida Audubon* court adopted a new and more restrictive four-part test for determining whether procedural rights plaintiffs have standing.³⁶⁶ The first part of the *Florida Audubon* standard requires that the procedural rights plaintiff have a particularized injury³⁶⁷ and demonstrate that "everyone else"³⁶⁸ is not injured, so that the injury is not too general for judicial action, which is arguably consistent with Justice Scalia's opinion in *Defenders*.³⁶⁹ Going beyond standing precedent, however,

facts).

³⁶¹ Florida Audubon, 94 F.3d at 662; see also Orr, supra note 151, at 388–89 (summarizing facts).

³⁶² Florida Audubon Soc'y v. Bentsen, 54 F.3d 873 (D.C. Cir. 1995), *overruled en banc*, 94 F.3d 658 (D.C. Cir. 1996).

³⁶³ Florida Audubon Soc'y v. Bentsen, 64 F.3d 712 (D.C. Cir. 1995) (granting en banc review).

³⁶⁴ Florida Audubon, 94 F.3d at 669; Hodas, supra note 64, at 476–78 (discussing the relevant test for standing and what is required to show injury).

³⁶⁵ Florida Audubon, 94 F.3d at 665 (citing and summarizing City of Los Angeles, 912 F.2d 478, 483–84 (D.C. Cir. 1990) (Ginsburg, D.H., J., dissenting in part), overruled by Florida Audubon, 94 F.3d 658 (D.C. Cir. 1996) (en banc)).

³⁶⁶ *Id.* at 666–69; Birnbach, *supra* note 316, at 324 (discussing new test); Orr, *supra* note 151, at 390 (same).

³⁶⁷ Florida Audubon, 94 F.3d at 667 n.4 (citing Warth v. Seldin, 422 U.S. 490, 508 (1975)).

³⁶⁸ Id. (citing United States v. Richardson, 418 U.S. 166, 176-80 (1974) (stating that generalized grievances do not give rise to standing)).

³⁶⁹ Compare Defenders, 504 U.S. 555, 560 (1992) (requiring particularized injury for standing), with Florida Audubon, 94 F.3d at 666-67 & n.4 (requiring, for standing, a particularized injury and a demonstration that the injury is not so general that "everyone else" is affected). See also Birnbach, supra note 316, at 324 (arguing that the Florida Audubon first prong, requiring particularized injury for standing, is consistent with Defenders); Orr, supra

the *Florida Audubon* court also stated that the D.C. Circuit would apply "even more exacting scrutiny" in reviewing standing for a plaintiff alleging an injury from broad rulemaking than in the case of a plaintiff challenging a governmental action at a particular site.³⁷⁰ Additionally, to prove that an injury is particularized and personal, rather than general, a plaintiff must present evidence addressing the "geographical nexus" between the governmental action and the location of the injury to the plaintiff, a requirement which also implicates the second part of the test.³⁷¹

b. Demonstrable Risk

The second part of the Florida Audubon standing test arguably goes beyond *Defenders* by demanding that plaintiffs demonstrate they are suffering an injury in fact as a result of a governmental action that affects "a particularized environmental interest of theirs that will suffer demonstrably increased risk."372 In the ETBE case before it, the court stated that the plaintiffs must show "whether the tax credit promulgated by the defendant is substantially likely to cause that demonstrable increase in risk to their particularized interest."373 The Florida Audubon court explicitly adopted Judge D.H. Ginsburg's test in his City of Los Angeles dissenting opinion that, to demonstrate a requisite injury in fact for standing purposes, a plaintiff "must show" that the EIS failure creates a "demonstrable risk not previously measurable (or the demonstrable increase of an existing risk) of serious environmental impacts that imperil [plaintiff's] particularized interests."374 In response to Judge Rogers's dissenting opinion, the majority acknowledged that, under its new "demonstrable risk" or "demonstrable increase" test for standing, "a plaintiff seeking to challenge a governmental action with alleged diverse environmental impacts may have some difficulty meeting this standard," but contended that its approach was consistent with *Defenders*. 375

note 151, at 390-91 (noting that the *Florida Audubon* test requires a demonstration that the injury is particular and not general to public at large).

³⁷⁰ Florida Audubon, 94 F.3d at 667; see also Orr, supra note 151, at 390 (arguing that Florida Audubon's application of stricter standing requirements in cases involving "broad rulemaking" was "[w]ithout the support of precedent").

³⁷¹ See Florida Audubon, 94 F.3d at 667 n.4 ("As the 'geographic nexus' test at issue here was in fact intended to ensure that a plaintiff's injury met this first criterion of being particularized and personal, an analysis of that test that does not actually require the plaintiff to demonstrate that such particularity must be invalid."); Orr, *supra* note 151, at 390–91 (discussing the injury-in-fact requirement).

³⁷² Florida Audubon, 94 F.3d at 665.

³⁷³ *Id.*; see also Hodas, supra note 64, at 476–77 (discussing the court's analysis); Birnbach, supra note 316, at 324 (same); Orr, supra note 151, at 390–91 (same).

³⁷⁴ Florida Audubon, 94 F.3d at 666.

³⁷⁵ *Id.* at 666; Hodas, *supra* note 64, at 476–77 (discussing the acknowledged difficulty of meeting the standard); Sam Kalen, *Standing on Its Last Legs:* Bennett v. Spear *and the Past and Future of Standing in Environmental Cases*, 13 J. LAND USE & ENVTL. L. 1, 47 (1997) (same).

c. Traceablity and Substantial Probability

The third part of the *Florida Audubon* test mandates that the demonstrable particularized injury be fairly traceable to the agency action, or in other words, appropriately requires a plaintiff to present evidence that the government's action or omission caused the particular harm alleged to have injured the plaintiff.³⁷⁶ Unfortunately, in the fourth part of its standing test, the *Florida Audubon* majority required a procedural rights plaintiff to show that it is "substantially probable" that the agency action will cause the demonstrable injury alleged by the plaintiff.³⁷⁷ As is discussed in Parts V.D and V.E, this "substantial probability" standard is more demanding than, and inconsistent with, the spirit of footnote seven in *Defenders*,³⁷⁸ which implies that a plaintiff with a threatened concrete injury can challenge an agency's failure to follow mandatory statutory procedures even if there is no guarantee that correcting the procedural error will change the substantive result.³⁷⁹

d. No Standing Because No Proven Injury

Applying the four-part test, the majority determined that the plaintiffs had failed to prove that the tax credit would necessarily cause the farmers near the wilderness areas to increase their crop production and thereby cause harm to wilderness areas used by the plaintiffs.³⁸⁰ Even though members of Congress predicted in the statute's legislative history that the tax credit would increase agricultural production in the United States, the majority found too many "uncertain links in a causal chain" to be sure that the tax credit would cause increased production among the farmers neighboring the plaintiffs.³⁸¹ Because the plaintiffs could not prove increased

³⁷⁶ Birnbach, *supra* note 316, at 324–25 (arguing that *Florida Audubori*'s third prong, requiring the plaintiff to show that a demonstrable particularized injury is fairly traceable to the agency action, is consistent with *Defenders*). *Compare Defenders*, 504 U.S. 555, 572 (1992) (requiring plaintiff to show that the alleged injury is fairly traceable to the agency action), *with Florida Audubon*, 94 F.3d at 666 (requiring plaintiff show that a demonstrable particularized injury is fairly traceable to the agency action).

³⁷⁷ Florida Audubon, 94 F.3d at 672; see also Birnbach, supra note 316, at 312, 325 (discussing the "substantially probable" standard and causation).

³⁷⁸ See Nelson, supra note 32, at 278 ("Although the District of Columbia Circuit [in Florida Audubon] viewed [Defenders] as altering injury-in-fact analysis for NEPA cases, the dicta in [footnote seven of Defenders] suggests the Supreme Court did not intend to change standing requirements in NEPA cases."); infia Parts V.D-E (evaluating the Ninth and Tenth Circuits' rejection of the Florida Audubon standard).

³⁷⁹ See Buzbee, supra note 146, at 803 ("The lesson of *Defenders*' footnotes seven and eight seemed to be that no certainty or even probability of changed outcomes is necessary when a plaintiff with a threatened concrete interest complains of a procedural irregularity."); see also supra Part III.B.2.e (discussing footnote seven in greater detail); infra Part V.E (arguing that the Ninth and Tenth Circuits' liberal standing tests are consistent with footnote seven).

³⁸⁰ Florida Audubon, 94 F.3d at 668; see also Kalen, supra note 375, at 48 (illustrating an application of the test); Nelson, supra note 32, at 272 (same); Orr, supra note 151, at 391 (same).

³⁸¹ Florida Audubon, 94 F.3d at 670; see also Kalen, supra note 375, at 48–49 (showing court's reliance on causal chain).

crop production would take place in areas near them, the court concluded that the plaintiffs had "not demonstrated such a geographical nexus to any asserted environmental injury." Accordingly, the court held that the plaintiffs had failed to establish an injury to their interests, which is a necessary requirement for standing, and therefore did not have standing to sue. 383

2. Judge Buckley's Concurring Opinion

Judge Buckley concurred in the result, but not with the reasoning of the majority. 384 Agreeing with the dissent that the majority's opinion "imposes an unduly heavy burden on appellants," Judge Buckley argued that the court's opinion would require plaintiffs to perform the research expected of the government in writing an EIS simply to meet the four-part standing test. 385 "Quite simply, the court now requires that a litigant be able to establish the nature and likelihood of the environmental injury that it is the purpose of an environmental impact statement to identify. We had it essentially right in *City of Los Angeles.* Judge Buckley warned that "the court has adopted new criteria for the establishment of standing in NEPA cases that will erode the effectiveness of one of the most important environmental measures of the past generation. Because the plaintiffs "failed to establish the necessary 'nexus' between the tax credit and the injuries they foresee," Judge Buckley concurred with "regret" in the result. 388

3. Judge Rogers's Dissenting Opinion

Judge Rogers's dissenting opinion, which was joined by Chief Judge Edwards and Judges Wald and Tatel, argued that the majority's new test for standing in procedural rights cases "imposes so heavy an evidentiary burden on appellants to establish standing that it will be virtually impossible to bring a NEPA challenge to rulemakings with diffuse impacts." Judge Rogers criticized the majority's standard for virtually requiring plaintiffs to prepare an EIS, and for ignoring how preparation of an EIS might lead an agency to change its policies. Judge Rogers

³⁸² Florida Audubon, 94 F.3d at 668; see also Kalen, supra note 375, at 48 (discussing plaintiff's inability to establish geographical nexus); Nelson, supra note 32, at 272 (same); Orr, supra note 151 at 391 (same).

³⁸³ Florida Audubon, 94 F.3d at 668; see also Kalen, supra note 375 at 48 (discussing court's holding); Orr, supra note 151, at 391 (same).

³⁸⁴ Florida Audubon, 94 F.3d at 672 (Buckley, J., concurring); see also Orr, supra note 151, at 391–92 (discussing Judge Buckley's concurrence).

³⁸⁵ Florida Audubon, 94 F.3d at 672 (Buckley, J., concurring).

³⁸⁶ *Id.*

³⁸⁷ Id.; see also Orr, supra note 151, at 391-92.

³⁸⁸ Florida Audubon, 94 F.3d at 672 (Buckley, J., concurring); see also Orr, supra note 151, at 391–92.

³⁸⁹ Florida Audubon, 94 F.3d at 674 (Rogers, J., dissenting); see also Birnbach, supra note 316, at 323 (discussing dissent); Kalen, supra note 375, at 49–50 (same).

³⁹⁰ Florida Audubon, 94 F.3d at 674 (Rogers, J., dissenting); see also Nelson, supra note 31, at

argued that the *City of Los Angeles* two-part standing test for NEPA plaintiffs was consistent with Justice Scalia's statement in footnote seven of *Defenders* that procedural rights cases are special, and that the plaintiffs in this case had met the two-part test.³⁹¹

In evaluating whether the plaintiffs had met the requirement of injury in fact, Judge Rogers's dissenting opinion concluded they "[had] demonstrated concrete and particularized injury by establishing that they had a 'geographical nexus' to the threatened environmental injury."³⁹² The plaintiffs presented "voluminous evidence" that the tax credit would encourage local farmers to abandon crop rotation to plant crops that produce ethanol, that such monoculture would likely cause increased erosion of their farm lands, and that soil erosion and water pollution resulting from greater use of pesticides and fertilizer for crops producing ethanol ingredients would harm wildlife habitats enjoyed by the plaintiffs. Furthermore, plaintiff Diane Jensen presented evidence that the tax credit would encourage farmers to use more pesticides and that such pesticides would result in contamination of her groundwater and drinking water.³⁹³

Judge Rogers also disagreed with the majority's conclusion that the plaintiffs had not established an injury in fact because they had not established that their injury was imminent.³⁹⁴ She argued that the majority had erred because they had ignored Justice Scalia's statement in footnote seven of *Defenders* that a plaintiff in a procedural rights case is not required to meet the normal standard of immediacy.³⁹⁵ Judge Rogers concluded that the plaintiffs had demonstrated injury in fact and established standing because they presented evidence demonstrating "a greater likelihood of a localized impact where Ms. Jensen lives."³⁹⁶

D. The Ninth and Tenth Circuits Disagree with Florida Audubon

1. The Tenth Circuit Rejects Florida Audubon

In 1996, the Tenth Circuit in *Committee to Save the Rio Hondo v. Lucero* (*Rio Hondo*)³⁹⁷ expressly disagreed with *Florida Audubon*'s "substantial probability" causation standard, and argued that the D.C. Circuit's approach to causation was inconsistent with *Defenders* and

^{273 (}criticizing *Florida Audubon* for essentially requiring plaintiffs to perform agency's role in assessing environmental impacts); Orr, *supra* note 151, at 392 (same).

³⁹¹ Florida Audubon, 94 F.3d at 674 (Rogers, J., dissenting) (discussing footnote seven of *Defenders*); see also Kalen, supra note 375, at 49–50; Orr, supra note 151, at 392.

³⁹² Florida Audubon, 94 F.3d at 677 (Rogers, J., dissenting); see also Birnbach, supra note 316, at 316; Kalen, supra note 375, at 50; Orr, supra note 151, at 392.

³⁹³ Florida Audubon, 94 F.3d at 677–78 (Rogers, J., dissenting); see also Birnbach, supra note 316, at 325.

³⁹⁴ Florida Audubon, 94 F.3d at 678 (Rogers, J., dissenting) (citing Wilderness Soc'y v. Griles, 824 F.2d 4, 18 (D.C. Cir. 1987)); see also Orr, supra note 151, at 392–93.

³⁹⁵ Florida Audubon, 94 F.3d at 678 (Rogers, J., dissenting) (discussing footnote seven of *Defenders*); see also Orr, supra note 151, at 393.

³⁹⁶ Florida Audubon, 94 F.3d at 679 (Rogers, J., dissenting); Orr, supra note 151, at 393.

³⁹⁷ 102 F.3d 445 (10th Cir. 1996).

congressional intent underlying NEPA.³⁹⁸ The *Rio Hondo* court interpreted *Defenders* as making it relatively easy for procedural rights plaintiffs to achieve standing if they have a concrete injury:

Although *Defenders of Wildlife* was an Endangered Species Act case, it has important implications for standing in the National Environmental Policy Act context. In *Defenders of Wildlife*, the court explained that in the context of the National Environmental Policy Act, litigants face few standing barriers where an agency's procedural flaw results in concrete injuries.³⁹⁹

In particular, the Tenth Circuit observed that footnote seven in *Defenders* relaxed the immediacy standard for procedural rights plaintiffs:

The Supreme Court has explained that in the context of a National Environmental Policy Act claim, the litigant need not satisfy the requirement of immediacy for purposes of injury in fact because the federal project complained of may not affect the concrete interest for several years; however, the injury in fact requirement certainly is met where the litigant establishes that injury to concrete interests is imminent.⁴⁰⁰

The Tenth Circuit also concluded that the causation requirements in *Defenders* for procedural rights plaintiffs are relatively relaxed as long as a plaintiff has a concrete injury:

In addition to establishing injury in fact, a plaintiff must also establish causation. To establish causation, a plaintiff must show its injuries are fairly traceable to the conduct complained of. In the context of a National Environmental Policy Act claim, the injury is the increased risk of environmental harm to concrete interests, and the conduct complained of is the agency's failure to follow the National Environmental Policy Act's procedures. To establish causation, a plaintiff need only show its increased risk is fairly traceable to the agency's failure to comply with the National Environmental Policy Act. 401

The *Rio Hondo* court observed that the D.C. Circuit in *Florida Audubon* had adopted a "somewhat different causation analysis" for NEPA claims

³⁹⁸ *Id.* at 451–52; *see also* Birnbach, *supra* note 316, at 312, 327–30, 334, 336 (discussing the Tenth Circuit's analysis of standing and NEPA in *Rio Hondo*); Kalen, *supra* note 375, at 50–53 (same); Sinor, *supra* note 240, at 881–89 (same, and arguing that the Tenth Circuit has adopted the best interpretation of footnote seven).

³⁹⁹ Rio Hondo, 102 F.3d at 447 n.2; see also Sinor, supra note 240, at 884–87 (arguing that the Tenth Circuit in Rio Hondo clarified and simplified footnote seven of Defenders by focusing on whether procedural error caused concrete injury).

⁴⁰⁰ Rio Hondo, 102 F.3d at 449 n.4 (citing footnote seven of *Defenders*); see also Sinor, supra note 240, at 885–87 (discussing the Tenth Circuit's relaxed approach to immediacy in *Rio Hondo*).

⁴⁰¹ Rio Hondo, 102 F.3d at 451 (citing footnote seven of *Defenders*); see also Sinor, supra note 240, at 884, 886 (discussing the Tenth Circuit's relaxed approach to causation in *Rio Hondo*).

than its test in the above quoted paragraph. 402 The Tenth Circuit contended that the *Florida Audubon* "analysis appears to confuse the issue of the likelihood of the harm, which is better addressed in the injury in fact prong of the analysis, with its cause."403 In determining causation in a NEPA case, the Tenth Circuit argued that the proper analysis is whether the alleged agency failure to prepare an EIS in accordance with NEPA increases the risk of harm to the plaintiff and not whether there is a substantial probability that the action will actually harm the plaintiff:

Whether an increased risk will or will not occur due to the agency action determines whether a plaintiff has suffered injury in fact, not causation. Certainly, under the injury in fact prong, a plaintiff cannot merely allege that some highly attenuated, fanciful environmental risk will result from the agency decision; the risk must be actual, threatened or imminent. However, once the plaintiff has established the likelihood of the increased risk for purposes of injury in fact, to establish causation, as the Committee has here, the plaintiff need only trace the risk of harm to the agency's alleged failure to follow the National Environmental Policy Act's procedures. Under the National Environmental Policy Act, an injury results not from the agency's decision, but from the agency's uninformed decisionmaking. The increased risk of adverse environmental consequences is due to the agency's "failure substantively to consider the environmental ramifications of its actions in accordance with [NEPA]."

The *Rio Hondo* court concluded that the burdensome evidentiary requirements in the *Florida Audubon* "substantial probability" test for standing were contrary to NEPA's intent to require federal agencies to examine the environmental impacts of their actions:

To require that a plaintiff establish that the agency action will result in the very impacts an environmental impact statement is meant to examine is contrary to the spirit and purpose of the National Environmental Policy Act. The National Environmental Policy Act was not intended to require the plaintiff to show with certainty, or even with a substantial probability, the results of agency action; those examinations are left to an environmental impact statement. To the extent that the D.C. Circuit's standard requires a plaintiff to establish something

⁴⁰² Rio Hondo, 102 F.3d at 451.

⁴⁰³ *Id.*; *see also* Kalen, *supra* note 375, at 52–53. According to the Tenth Circuit, the risk-of-harm issue should be analyzed as one part of a two-part test in determining whether there is an injury in fact:

^{(1) [}T]he litigant must show that in making its decision without following the National Environmental Policy Act's procedures, the agency created an increased risk of actual, threatened or imminent environmental harm; and (2) the litigant must show that the increased risk of environmental harm injures its concrete interests by demonstrating either its geographical nexus to, or actual use of the site of the agency action.

Rio Hondo, 102 F.3d at 449; see also Birnbach, supra note 316, at 328-29.

⁴⁰⁴ Rio Hondo, 102 F.3d at 451-52 (quoting Catron County Bd. of Comm'rs v. United States Fish & Wildlife Serv., 75 F.3d 1429, 1433 (10th Cir. 1996)).

more than set out here, it is contrary to the intent and essence of the National Environmental Policy Act and is, therefore, rejected. 405

2. The Ninth Circuit's Relaxed Approach to NEPA Standing Also Disagrees with Florida Audubon

In 2003, the Ninth Circuit in *Citizens for Better Forestry v. United States Dept. of Agriculture (Citizens for Better Forestry)* 406 explicitly rejected *Florida Audubon's* standing test. 407 In the Ninth Circuit,

Environmental plaintiffs "seeking to enforce a procedural requirement the disregard of which could impair a separate concrete interest of theirs,'... can establish standing 'without meeting all the normal standards for... immediacy." Rather, they "need only establish 'the reasonable probability of the challenged action's threat to [their] concrete interest." "408

Based on footnote seven of *Defenders*, the Ninth Circuit stated, "Once a plaintiff has established an injury in fact under NEPA, the causation and redressability requirements are relaxed."

Pursuant to the Ninth Circuit's broad approach to NEPA cases, a federal district court in California in 2003 concluded that an environmental assessment prepared by federal agencies, including the Department of Energy, was inadequate because it did not disclose or consider the significance of the environmental impacts of CO₂ emissions.⁴¹⁰ The court found that the plaintiffs had standing because they lived near the transmission lines and power plants at issue, but did not specifically address whether the plaintiffs had standing regarding their CO₂ claim. Compared to Judge Gould's subsequent concurring opinion in *Covington*, the district court failed to address the more complex standing issues raised by global pollution issues, especially whether injury to all is injury to none for standing purposes.⁴¹¹

⁴⁰⁵ *Id.* at 452; see also Nelson, supra note 32, at 277–81 (arguing that *Defenders* did not change standing requirements in NEPA cases, that *Florida Audubon* misinterpreted *Defenders* in applying unnecessarily strict standing requirements in NEPA cases and arguing in favor of relaxed standing in such cases).

^{406 341} F.3d 961 (9th Cir. 2003).

⁴⁰⁷ Id. at 974.

⁴⁰⁸ *Id.* at 972 (internal quotations omitted); *see also* Nelson, *supra* note 32, at 273–76 (discussing the Ninth Circuit's relaxed standing requirements in NEPA cases and comparing them to the strict standing requirements of D.C. Circuit).

⁴⁰⁹ Citizens for Better Forestry, 341 F.3d at 975 (internal quotations and citations omitted); see also Nelson, supra note 32, at 273–76 (discussing the Ninth Circuit's relaxed standing requirements in NEPA cases and comparing them to the strict standing requirements of the D.C. Circuit).

⁴¹⁰ Border Power Plant Working Group v. Dep't of Energy, 260 F. Supp. 2d 997, 1028–29, 1033 (S.D. Cal. 2003). The environmental assessment evaluated the proposed issuance of presidential permits and federal rights of way allowing two utilities to build electricity transmission lines to connect new power plants in Mexico with the power grid in southern California. Id

⁴¹¹ *Id.* at 1008–11.

E. The Standing Tests in the Ninth and Tenth Circuits are Closer to Footnote Seven in Defenders and Congressional Intent for NEPA

The relaxed standing tests in the Ninth and Tenth Circuits for procedural rights plaintiffs are closer to the spirit of footnote seven in Defenders, which allows a plaintiff with a threatened concrete injury to challenge an agency's failure to follow mandatory statutory procedures even if there is no guarantee that correcting the procedural error will change the substantive result,412 than are the demonstrable and substantial probability components of the Florida Audubon test. 413 As suggested by both the Ninth and Tenth Circuits, the fourth part of the standing test in Florida Audubon that the plaintiff must demonstrate that the "challenged act is substantially probable to cause the demonstrated particularized injury"⁴¹⁴—is inconsistent with at least the spirit of footnote seven in *Defenders* as well as Congress's intent in NEPA to make agencies evaluate the environmental harms resulting from their actions. 415 In footnote seven of *Defenders*, Justice Scalia acknowledged that standing requirements are relatively easy to fulfill for a plaintiff who is challenging an alleged procedural error by the government that caused her a concrete injury: "There is this much truth to the assertion that 'procedural rights' are special: The person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy."416 The D.C. Circuit's "substantial probability" standard makes it too difficult for NEPA plaintiffs who have concrete injuries to challenge an

⁴¹² See Buzbee, supra note 146, at 803 ("The lesson of Defenders' footnotes seven and eight seemed to be that no certainty or even probability of changed outcomes is necessary when a plaintiff with a threatened concrete interest complains of a procedural irregularity."); see also Nelson, supra note 32, at 277–81 (arguing that Defenders did not change standing requirements in NEPA cases and that Florida Audubon misinterpreted Defenders in applying unnecessarily strict standing requirements in NEPA cases, and arguing in favor of relaxed standing in such cases); infra notes 415–22 and accompanying text.

⁴¹³ See Citizens for Better Forestry, 341 F.3d at 974 (rejecting defendant's argument that the court should adopt Florida Audubon's test requiring "heightened standing scrutiny"); Birnbach, supra note 316, at 315–13, 323–36 (arguing that Florida Audubon is inconsistent with Defenders in demanding more proof than necessary in determining causation and standing for procedural rights plaintiffs); Nelson, supra note 32, at 278 ("Although the District of Columbia Circuit [in Florida Audubon] viewed [Defenders] as altering injury-in-fact analysis for NEPA cases, the dicta in [footnote seven of Defenders] suggests the Supreme Court did not intend to change standing requirements in NEPA cases."); Sinor, supra note 240, at 886 (criticizing Florida Audubon: "By adding a demonstrable injury requirement and refusing to relax the redressability and causation requirements as suggested in footnote seven, the court made it substantially more difficult for plaintiffs who challenge programmatic decisions, or decisions with diffuse impacts, to establish standing.").

⁴¹⁴ Florida Audubon, 94 F.3d 658, 666 (D.C. Cir. 1996) (en banc).

⁴¹⁵ See Citizens for Better Forestry, 341 F.3d at 974 (noting the conflict between the Ninth and D.C. Circuits); Birnbach, supra note 316, at 312–13, 323–36 (arguing that Florida Audubon is inconsistent with Defenders in demanding more proof than necessary in determining causation and standing for procedural rights plaintiffs); Sinor, supra note 240, at 886 (criticizing Florida Audubon for making it "more difficult for plaintiffs who challenge programmatic decisions, or decisions with diffuse impacts, to establish standing").

⁴¹⁶ Defenders, 504 U.S. 555, 572 n.7 (1992).

agency's failure to prepare an EIS because it is usually uncertain whether a revised EIS would change an agency's substantive decision to build a project. The *Florida Audubon* court's analysis is inconsistent with over 20 years of NEPA precedent allowing plaintiffs with threatened concrete injuries to challenge agencies' procedural errors without proof that fixing the procedural errors will lead to a different result. By contrast, the Ninth Circuit's test that "[o]nce a plaintiff has established an injury in fact under NEPA, the causation and redressability requirements are relaxed," comes much closer to the spirit of footnote seven and NEPA precedent. 419

Furthermore, *Florida Audubon*'s standing prerequisite that plaintiffs collect substantial evidence proving that an agency action will harm them is inconsistent with NEPA's statutory language, legislative history, and purpose, as Congress properly assigned such research and evaluation to the agency. NEPA requires an agency's environmental assessment to consider all reasonable alternatives, even if an agency lacks the substantive authority actually to implement or the jurisdiction to approve an alternative, including those alternatives that would require congressional legislation. Thus, an agency should consider pending legislative proposals to reduce GHGs as reasonable alternatives that deserve some discussion in an EIS addressing global warming.

In response to the dissent's argument that Congress intended to provide a cause of action for plaintiffs asserting procedural errors under NEPA, at least where the plaintiff is threatened with concrete harms from the procedural error, the *Florida Audubon* majority inappropriately refused to discuss the issue, stating "We, of course, do not concede—or even need to address—the dissent's repeated suggestion that our analysis somehow

⁴¹⁷ See Buzbee, supra note 146, at 803, 808–10; Sinor, supra note 240, at 886.

⁴¹⁸ See Buzbee, supra note 146, at 808–10 (interpreting NEPA precedent as not requiring a plaintiff with concrete injury to prove that remedying procedural errors will change the substantive result).

⁴¹⁹ Citizens for Better Forestry, 341 F.3d at 975 (internal quotations and citations omitted).

⁴²⁰ See Nelson, supra note 32, at 273; supra notes 415-419 and accompanying text.

⁴²¹ See 40 C.F.R. § 1502.14(c) (2004) ("[A]gencies shall... [i]nclude reasonable alternatives not within the jurisdiction of the lead agency."); Natural Res. Def. Council, Inc. v. Morton, 458 F.2d 827, 833–37 (D.C. Cir. 1972) (holding that the Secretary of the Interior must consider reasonable alternatives to a proposal even if the agency or government lacks authority to implement them, and that reasonable alternatives may require consideration of actions that would require Congress to pass new legislation); Welch v. United States Air Force, 249 F. Supp. 2d 797, 833 (N.D. Tex. 2003) (same, quoting Morton), vacated by Davis Mtns. Trans-Pecos Heritage Ass'n v. F.A.A., 2004 WL 2295986 (5th Cir., Oct. 12, 2004) (unreported opinion); Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 235 F. Supp. 2d 1143, 1154 (W.D. Wash. 2002) (same, quoting Morton); Jason J. Czarnezki, Comment, Defining the Project Purpose Under NEPA: Promoting Consideration of Viable EIS Alternatives, 70 U. Chi. L. Rev. 599, 602 (2003) (discussing Morton). See generally id. at 599–618 (discussing the conflicting views of agency authority to interpret the range of alternatives narrowly or broadly, and arguing that courts should require agencies to adopt a broad view of alternatives to promote the statute's goal of informed public choice).

⁴²² See 40 C.F.R. § 1508.25 (2004) (outlining the scope of an EIS). One such legislative proposal is the Climate Stewardship Act of 2003, S. 139, 108th Cong., 1st Sess. (2003) (proposing reduced U.S. emissions of six GHGs to 2000 levels by 2010 and then to 1990 levels beginning in 2016).

violates 'Congress's determination' to provide a private cause of action to individuals alleging some procedural lapse . . . as Congress did not expressly create this right in NEPA."423 The Florida Audubon dissenters correctly observed that "[t]he causation inquiry in a NEPA case, however, must be conducted in light of the procedural injury that the statute creates."424 Quoting Justice Kennedy's crucial concurring opinion in *Defenders*, which observed that "Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before," the Florida Audubon dissenters responded that "the nature of the causation inquiry is shaped by the procedural right asserted under NEPA."425 Accordingly, the Tenth Circuit in *Rio Hondo* recognized that the appropriate question in determining causation and traceability is whether an agency's failure to prepare an EIS in accordance with NEPA increases the risk of harm to the plaintiff from unstudied environmental consequences, and not whether there is a substantial probability that the action will actually harm the plaintiff. 426

Returning to the facts in City of Los Angeles, the court in that case properly found standing because NRDC had shown there was a "reasonable likelihood" that requiring the agency to prepare an EIS could lead the agency to a "different conclusion." First, the appropriate causation standard is whether there is "some likelihood" that preparing an EIS would influence the ultimate decision. 428 Second, the proper redressability standard is not whether changing the CAFE decision would reduce global warming, but whether "an EIS would redress its asserted injury, i.e., that any serious effects in global warming will not be overlooked."429 Because the proof required of a plaintiff for standing in a procedural rights case should be less than the evidence demanded of a plaintiff to prove that the agency's substantive decision was arbitrary and capricious when it ignored significant environmental impacts, the majority in City of Los Angeles appropriately rejected Judge D.H. Ginsburg's demand that the plaintiffs prove that the agency's one mpg change in gas mileage would cause global warming that would actually harm them. The City of Los Angeles majority was correct in noting that this stringent approach to causation would unreasonably preclude virtually all complex environmental claims, including global

⁴²³ Florida Audubon 94 F.3d 658, 665 n.3 (D.C. Cir. 1996) (en banc).

⁴²⁴ *Id.* at 674 (Rogers, J., dissenting).

⁴²⁵ Id. at 674–75 (emphasis added and citation omitted) (citing Idaho Conservation League v. Mumma, 956 F.2d 1508, 1516 (9th Cir. 1992), for the proposition that "[t]he standing examination . . . must focus on the likelihood that the defendant's action will injure the plaintiff in the sense contemplated by Congress"); see Buzbee, supra note 146, at 813.

⁴²⁶ Rio Hondo, 102 F.3d at 451-52; see Birnbach, supra note 316, at 329-30 (paraphrasing the holding in Rio Hondo and noting its inconsistency with Florida Audubon); Kalen, supra note 375, at 52-53 (same).

⁴²⁷ City of Los Angeles, 912 F.2d at 497; see Hodas, supra note 64, at 475 (paraphrasing the City of Los Angeles holding).

⁴²⁸ City of Los Angeles, 912 F.2d at 498; see Hodas, supra note 64, at 475–76 (discussing the "some likelihood" standard of causation in the context of City of Los Angeles).

⁴²⁹ City of Los Angeles, 912 F.2d at 499; see Hodas, supra note 64, at 476 (discussing City of Los Angeles and noting the appropriate redressability standard).

pollution and warming issues, because, although the scientific evidence that GHGs cause global warming is strong, it is difficult to prove how any single source or factor contributes to the total harm. As implied by the dissenters in *Florida Audubon*, as well as the Tenth Circuit in *Rio Hondo*, the demonstrable and substantial probability parts of the majority's four-part standing test inappropriately confused standing with substance by requiring plaintiffs to research and produce their own EIS merely to obtain standing to allege that the government should have prepared an EIS. Under the relaxed causation and redressability requirements in footnote seven of *Defenders* and NEPA's goal of informed decision making by agencies, it is enough for plaintiffs to have standing that NHTSA's proper evaluation of those harms in an EIS might have changed the agency's policies and actions or informed the public of significant environmental impacts, and that a proper evaluation could reasonably reduce harm to the plaintiffs in the future.

VI. IN THE CLEAN AIR ACT, CONGRESS HAS NOT CLEARLY AUTHORIZED REGULATION OF OR CITIZEN SUITS INVOLVING GLOBAL WARMING

Courts and commentators have recognized that whether a plaintiff has standing depends to a significant extent on whether Congress has intended to authorize suits for a particular type of injury or harm by conferring a cause of action in a statute. ⁴³³ In his concurring opinion in *Defenders*, Justice Kennedy argued that "Congress has the power to define injuries . . . [and] articulate chains of causation that will give rise to a case or controversy where none existed before." ⁴³⁴ In the 1998 *Akins* decision, the Court

434 Defenders, 504 U.S. 555, 580 (1992) (Kennedy, J., concurring).

⁴³⁰ See Hodas, supra note 64, at 475 (discussing Judge D.H. Ginsburg's dissenting opinion in City of Los Angeles).

⁴³¹ See Rio Hondo, 102 F.3d at 451–52; Florida Audubon, 94 F.3d at 674 (Rogers, J., dissenting); supra notes 389–90, 403–04, and accompanying text.

⁴³² See Hodas, supra note 64, at 475 (discussing Judge D.H. Ginsburg's dissenting opinion in City of Los Angeles).

⁴³³ See Covington, 358 F.3d 626, 653 n.9 (9th Cir. 2004) (Gould, J., concurring) (citing sources). One commentator has explained,

Through the process of statutory enactment, the legislature can make legally cognizable forms of injury that the Court previously would have considered unduly abstract....

Once the legislature has declared a form of injury legally cognizable[,] . . . the Court's power and authority to decline to recognize that form of injury is severely limited. . . .

Courts should also defer to legislative determinations of causal relationships.

³ RICHARD J. PIERCE, JR., ADMINISTRATIVE LAW TREATISE § 16.8 (4th ed. 2002); see also 1 LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 397 (3d ed. 2000) ("[T]here is good reason to afford Congress a wide berth in specifying... new forms of 'injury."); Buzbee, supra note 146, at 767 (arguing that Congress should have the power to define injury); Jerry L. Mashaw, "Rights" in the Federal Administrative State, 92 Yale L.J. 1129, 1168 (1983) (discussing the role of a statutory scheme in determining standing); Cass R. Sunstein, Standing Injuries, 1993 Sup. Ct. Rev. 37, 58 (1994) (arguing that courts should defer to congressional definition of injury).

appeared to follow Justice Kennedy's approach when it stated that the statute at issue "[sought] to protect individuals such as respondents from the kind of harm they say they have suffered." Following Justice Kennedy's approach, federal courts of appeals decisions have emphasized whether Congress intended in a statute to protect potential plaintiffs from the types of injuries at issue in the case. Thus, because Congress had explicitly authorized citizen suits for violations of both RCRA⁴³⁷ and the CAA, the *Covington* court concluded that the Covingtons had standing.

Accordingly, in deciding whether any plaintiff could have standing under the CAA to sue EPA to regulate GHGs, a crucial issue is whether Congress intended to give EPA the authority to regulate GHGs under the CAA and whether it intended to allow citizens to sue the agency concerning such issues. Although EPA during the Clinton Administration had suggested that the CAA provides it with some authority to regulate GHGs, in 2003, EPA's then-General Counsel Robert Fabricant concluded in a memorandum that Congress specifically intended to preclude EPA from regulating GHGs under the CAA. 440 If the Fabricant Memorandum is correct, then any suit seeking to compel EPA to regulate GHGs must fail because it would be outside the statute's zone of interests for standing. 441

Gregory B. Foote, an EPA attorney writing in his private capacity and not on behalf of the agency, has argued in a recent article, however, that EPA has a duty to consider significant *unregulated* pollutants, including CO₂ and other GHGs, when it reviews proposed permits for new power plants under the CAA's New Source Review (NSR) program even if the Fabricant Memorandum is correct that EPA has no direct authority to regulate them. He has a duty to consider GHGs during the NSR process, and standing would be possible. If EPA has a duty to consider GHGs as part of the NSR permit process, a plaintiff who is "adversely affected or aggrieved by agency action within meaning of a relevant statute" could sue under the APA to determine whether the agency's approach to regulation is arbitrary and capricious. He

⁴³⁵ Akins, 524 U.S. 11, 22 (1998); Covington, 358 F.3d at 651 (Gould, J., concurring) (discussing Akins).

⁴³⁶ See Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 204 F.3d 149, 156 (4th Cir. 2000) (en banc) (observing that the plaintiff "alleged precisely those types of injuries that Congress intended to prevent"); Baur v. Veneman, 352 F.3d 625, 635 (2d Cir. 2003) ("[T]here is a tight connection between the type of injury which [the plaintiff] alleges and the fundamental goals of the statutes which he sues under—reinforcing [his] claim of cognizable injury.").

⁴³⁷ See 42 U.S.C. § 6972 (2000) (authorizing citizens to sue defendants violating RCRA).

⁴³⁸ See id. § 7604(a)(1) (authorizing citizens to sue defendants violating the CAA).

⁴³⁹ Covington, 358 F.3d at 638 n.13.

⁴⁴⁰ See infra notes 458-66 and accompanying text.

⁴⁴¹ See infra Part VI.D.1.

⁴⁴² See generally Foote, supra note 50 at 10,662–64 ("[T]he CAA requires that NSR permit decisions consider environmental impacts of unregulated pollutants such as CO₂."); infra Part VI.C.

⁴⁴³ 5 U.S.C. § 702 (2000) ("A person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within meaning of a relevant statute, is entitled to judicial review thereof.").

⁴⁴⁴ Id. § 706(2)(A) (2000) (granting courts the authority to set aside agency action that is

A. Does EPA Have a Duty Under the CAA to Regulate GHGs?

A case currently pending before the D.C. Circuit raises the important question of whether EPA has a duty pursuant to the CAA to regulate GHGs.⁴⁴⁵ On October 20, 1999, the International Center for Technology Assessment (ICTA) and several other organizations petitioned EPA to regulate CO, and other GHGs from new motor vehicles and engines under section 202(a)(1) of the CAA.446 The petitioners claimed that these emissions are significantly contributing to global climate change and that EPA has a duty to regulate them under section 202(a) of the CAA and perhaps other sections of the Act as well.⁴⁴⁷ ICTA relied in large part on an April 10, 1998 memorandum entitled "EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources" written by then-EPA General Counsel Jonathan Z. Cannon to EPA Administrator Carol Browner (Cannon Memorandum).⁴⁴⁸ At a March 11, 1998 hearing by the House Appropriations Committee on the 1999 Fiscal Year VA-HUD Appropriations bill, in response to a question by Congressman DeLay regarding whether EPA had authority to regulate CO, under the CAA, EPA Administrator Carol Browner suggested that the CAA gives EPA authority to regulate CO,, and agreed to have the agency provide a legal opinion on the matter. 449 The Cannon Memorandum asserts that CO, fits within the definition of "air pollutant" under CAA section 302(g),⁴⁵⁰ implying that EPA has the authority to regulate CO₂.

[&]quot;arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law").

⁴⁴⁵ See supra notes 41-44 and accompanying text.

⁴⁴⁶ Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,922–23 (Sept. 8, 2003). The petitioners asked the EPA to regulate carbon dioxide, methane, nitrous oxide, and hydrofluorocarbon (HFCs) emissions from new motor vehicles and engines. *Id.*

⁴⁴⁷ Id. at 52,923.

⁴⁴⁸ Memorandum from Jonathan Z. Cannon, EPA General Counsel, to Carol M. Browner, EPA Administrator, EPA's Authority to Regulate Emissions by Electric Power Generation Sources (April 10, 1998) [hereinafter Cannon Memorandum], available at http://www.law.umaryland.edu/faculty/bpercival/casebook/documents/EPACO2memo1.pdf; Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. at 52,923 (discussing the Cannon Memorandum); Fabricant Memorandum, supra note 40, at 1–11 (concluding that EPA does not have authority to regulate CO₂ and rejecting the Cannon Memorandum as no longer representing the views of EPA); Reitze, supra note 39, at 10,258 (discussing the Cannon Memorandum).

⁴⁴⁹ See Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations for 1999: Hearings Before a Subcomm. of the House Comm. on Appropriations, 105th Cong. 200 (1998) (testimony of Carol Browner, Administrator, United States Environmental Protection Agency) (opining that the CAA gives EPA "broad authority" to regulate CO₂ emissions and agreeing to provide Senator DeLay with a legal opinion on the matter—the Cannon Memorandum); see also Bugnion & Reiner, supra note 111, at 499 (discussing EPA Administrator Carol Browner's 1998 congressional subcommittee testimony on EPA's authority to regulate CO₂); Fabricant Memorandum, supra note 40, at 2 (same).

⁴⁵⁰ See Cannon Memorandum, supra note 448, (discussing CAA § 302(g)); Bugnion & Reiner, supra note 111, at 502–03 nn.65–67 (same); Reitze, supra note 39, at 10,257–58 (same). CAA § 302(g) states,

However, the memorandum also states that the agency had not yet taken the requisite procedural steps to find that CO_2 had harmful impacts on public health, public welfare, or the environment, a finding necessary for EPA to regulate it as a pollutant.⁴⁵¹ On October 6, 1999, Gary S. Guzy, who succeeded Cannon as General Counsel of EPA, testified before a House subcommittee that he agreed with the Cannon Memorandum, but the agency still took no steps to regulate CO_2 .⁴⁵²

Relying on the Cannon Memorandum's interpretation of the term "air pollutant" in section 302(g), the ICTA petition contends that if CO₂ is an air pollutant then other significant GHGs should also meet the CAA's definition of "air pollutant" under section 302(g).⁴⁵³ If GHGs are air pollutants as defined in the CAA, the ICTA petition argues that EPA has a mandatory duty to regulate motor vehicles emitting GHGs under CAA section 202(a).⁴⁵⁴ Section 202(a)(1) provides that

the Administrator [of EPA] shall by regulation prescribe . . . in accordance with the provisions of [section 202], standards applicable to the emission of any air pollutant from any class or classes of new motor vehicle . . . , which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. 455

The term "air pollutant" means any air pollution agent or combination of such agents, including any physical, chemical, biological [or] radioactive... substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent that the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used.

42 U.S.C. § 7602(g) (2004).

⁴⁵¹ See Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. at 52,923 (discussing the Cannon Memorandum and EPA's authority to regulate GHGs under CAA § 302(g)); Bugnion & Reiner, supra note 111, at 502–03 (same); Fabricant Memorandum, supra note 40, at 1–2, 9–11 (same); Reitze, supra note 39, at 10,257–58 (same).

452 See Is CO₂ a Pollutant and Does EPA Have the Power to Regulate It?: Joint Hearing Before the Subcomm. on National Economic Growth, Natural Resources, and Regulatory Affairs of the House Comm. on Government Reform and the Subcomm. on Energy and Environment of the House Comm. on Science, 106th Cong. 19 (1999) (testimony of Gary S. Guzy, General Counsel, EPA) ("The opinion of my predecessor [Jonathan Z. Cannon] simply clarifies—and I endorse this opinion—that CO₂ is in the class of compounds that could be subject to several of the Clean Air Act's regulatory approaches."), available at http://www.house.gov/science/guzy_100699.htm; Reitze, supra note 39, at 10,258–59 (discussing Guzy's congressional testimony).

 453 See Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. at 52,923 (discussing ICTA petition); Bugnion & Reiner, supra note 111, at 520–21 (same); Fabricant Memorandum, supra note 40, at 1–2, 9–11 (same); Reitze, supra note 39, at 10,259 (same); id. at 10,257 ("If ${\rm CO_2}$ is a pollutant under the CAA, then other GHGs presumably also would be pollutants.").

454 See Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. at 52,923 (discussing ICTA petition); Bugnion & Reiner, supra note 111, at 520–21 (same); Fabricant Memorandum, supra note 40, at 1–2, 9–11 (same); Reitze, supra note 39, at 10,259 (same).

⁴⁵⁵ 42 U.S.C. § 7521(a)(1) (2000).

Despite the broad definition of "air pollutant" in CAA section 302(g), some commentators argue that the legislative history of the 1990 Amendments to the CAA strongly suggests that Congress did not want EPA to regulate GHGs because it considered bills specifically including regulation of GHGs, but did not adopt any language requiring EPA to regulate $\rm CO_2$ or other GHGs. If Congress considers but rejects explicit statutory language authorizing an agency to regulate a subject, the Supreme Court usually declines to interpret a silent or ambiguous statute as nevertheless implicitly delegating such authority. It is a support of the supreme court usually declines to interpret a silent or ambiguous statute as nevertheless implicitly delegating such authority.

For almost four years, EPA delayed ruling on the ICTA petition. In 2001, Administrator Browner and General Counsel Guzy, both Democratic appointees, resigned, and President George W. Bush, a Republican, announced his opposition to the Kyoto Protocol and appointed a new leadership team at EPA. On August 28, 2003, Robert E. Fabricant, then-EPA General Counsel, wrote a memorandum entitled "EPA's Authority to Impose Mandatory Controls to Address Global Climate Change Under the Clean Air Act" to then-Acting EPA Administrator Marianne L. Horinko (Fabricant Memorandum) that discussed and rejected the Cannon Memorandum as no longer representing the views of EPA. 458 Even if the Cannon analysis had been correct when it was issued in 1998, the Fabricant Memorandum concluded that the Cannon Memorandum was no longer valid in light of the Supreme Court's 2000 decision in Food and Drug Administration v. Brown & Williamson Tobacco Corp. (Brown & Williamson). 459 The Court in Brown & Williamson held that the Food and Drug Administration (FDA) did not have authority under the Food, Drug, and Cosmetic Act (FDCA)⁴⁶⁰ to regulate tobacco products despite broad statutory language appearing to give FDA

 $^{^{456}}$ See Clean Air Act Amendments of 1990, S. 1630, 101st Cong. § 206 (1990) (proposing regulation of $\mathrm{CO_2}$ from motor vehicle tailpipes); id. § 601 (proposing "Stratospheric Ozone and Climate Protection Act" that would have required the EPA to reduce GHGs to the maximum extent possible); S. REP. No. 101-228, at 385 (1989), reprinted in 1990 U.S.C.C.A.N. 3385, 3770 (discussing proposed "Stratospheric Ozone and Climate Protection Act" that would have required the EPA to reduce GHGs to the maximum extent possible); 136 Cong. Rec. 3701 (statement of Sen. Gore) (discussing elimination of proposed tailpipe emission standard from the proposed amendments); Bugnion & Reiner, supra note 111, at 512–14 (arguing that the CAA does not allow EPA to regulate GHGs because in passing the 1990 Amendments, Congress considered but ultimately rejected regulation of GHGs by removing all proposed references to regulating $\mathrm{CO_2}$ or other GHGs); Reitze, supra note 39, at 10258–59 (same).

⁴⁵⁷ See Immigration & Naturalization Serv. v. Cardozo-Fonseca, 480 U.S. 421, 442–43 (1987) ("Few principles of statutory construction are more compelling than the proposition that Congress does not intend sub silentio to enact statutory language that it has earlier discarded."); Gulf Oil Corp. v. Copp Paving, 419 U.S. 186, 200 (1974) (stating that congressional rejection of a statute "strongly militates against a judgment that Congress intended a result that it expressly declined to enact"); Amoco Oil Co. v. Envtl. Prot. Agency, 501 F.2d 722, 733 (D.C. Cir. 1974) (stating that a conference committee's decision to eliminate proposed authority "was a deliberated one and was meant to have significance"); Bugnion & Reiner, supra note 111, at 513 (discussing the principle of statutory construction that courts will not interpret a statute to authorize certain regulation if Congress explicitly considered proposed language authorizing such regulation, but did not include that language when it enacted statute).

⁴⁵⁸ Fabricant Memorandum, *supra* note 40.

^{459 529} U.S. 120 (2000); see Fabricant Memorandum, supra note 40, at 4.

⁴⁶⁰ Federal Food, Drug, and Cosmetic Act (FDCA), 21 U.S.C. § 301–399 (2000).

the discretion to regulate all "drugs" and "devices." The Court did not extend FDA's regulatory authority because it was unreasonable to assume that Congress wanted FDA to impose regulations having drastic consequences on the national economy without explicit congressional authorization.⁴⁶¹

Although some broad language in the CAA might suggest that EPA has the authority to regulate CO, and other GHGs, relying on the Court's approach in Brown & Williamson, the Fabricant Memorandum concluded that any attempt by EPA to regulate GHGs by limiting the burning of fossil fuels is a momentous actionwith potentially huge economic consequences that can be justified only if there is specific evidence that Congress wanted EPA to regulate such a broad area of the economy. 462 In reviewing the history of the CAA and especially the legislative history of the 1990 Amendments to the CAA, the Fabricant Memorandum determined that Congress did not intend to give EPA the authority to regulate CO, or other GHGs; instead, Congress simply wanted the agency to conduct research regarding global warming so that Congress could decide in the future whether or how to regulate GHGs. 463 The Fabricant Memorandum also argued that the Cannon Memorandum misread EPA's authority to regulate CO, and other GHGs under CAA section 302(g) by focusing on the general term "air pollutant," but ignoring that section's use of the arguably narrower term "air pollution agent." The Fabricant Memorandum determined that CO2 and other GHGs are not "agents" of air pollution subject to EPA regulation under the CAA. 465 The Fabricant Memorandum concluded that the Cannon Memorandum and the statements by Mr. Guzy agreeing with the Cannon Memorandum "no longer represent the views of EPA's General Counsel."466

On September 8, 2003, EPA published in the Federal Register its Notice of Denial of ICTA's petition for rulemaking.⁴⁶⁷ In its Notice of Denial, EPA largely relied on the arguments in the Fabricant Memorandum that EPA lacked authority to regulate CO, in light of the history of the CAA and the

⁴⁶¹ Brown & Williamson, 529 U.S. at 160–161; see Fabricant Memorandum, supra note 40, at 9.

⁴⁶² Fabricant Memorandum, supra note 40, at 4-11.

⁴⁶³ Id

⁴⁶⁴ Id. at 10–11 n.9. Late in the publication process for this Article, a student note was published arguing that CO₂ is an "air pollutant" as defined in CAA §§ 302(g) and 103(g), 42 U.S.C. §§ 7602(g), 7403(g) (2000), and therefore, that the Fabricant Memorandum's conclusion that CO₂ is not an "air pollutant" under the Act is wrong. The note also argues that the Fabricant Memorandum's conclusion that CO₂ is not an "air pollutant" under the Act clearly contradicts congressional intent in §§ 302(g) and 103(g) and therefore is not entitled to Chevron deference. Nicholle Winters, Note, Carbon Dioxide: A Pollutant in the Air, But Is the EPA Correct that It Is Not an "Air Pollutant"? 104 COLUM. L. REV. 1996 (2004). More specifically, the note states that "[t]he argument that Brown & Williamson mandates the EPA to disavow the authority to regulate carbon dioxide is not persuasive," concluding that the Fabricant Memorandum merits "little deference" even under a Skidmore analysis. Id at 2018, 2024.

⁴⁶⁵ Fabricant Memorandum, *supra* note 40, at 10-11 n.9.

⁴⁶⁶ Id.

⁴⁶⁷ See generally Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922 (Sept. 8, 2003) (denying petition to regulate CO, under the CAA).

Brown & Williamson decision.⁴⁶⁸ The Notice stated, "The General Counsel's opinion [the Fabricant Memorandum] is adopted as the position of the Agency for purposes of deciding this petition and for all other relevant purposes under the CAA."⁴⁶⁹

Because of the economic importance of fossil fuels to the U.S. economy, EPA concluded, as had the Fabricant Memorandum,⁴⁷⁰ that the *Brown & Williamson* approach to interpreting the scope of agency authority applies because it is unlikely that Congress wanted EPA to regulate GHGs without express congressional approval.⁴⁷¹ Citing the Fabricant Memorandum in a footnote,⁴⁷² the agency also concluded that GHGs were not "air pollution agents" as defined by section 302(g) of the CAA because EPA lacks the authority to regulate GHGs, and, therefore GHGs were not air pollution as defined in the statute.⁴⁷³ Furthermore, EPA determined that any

It is hard to imagine any issue in the environmental area having greater "economic and political significance" than regulation of activities that might lead to global climate change. Virtually every sector of the U.S. economy is either directly or indirectly a source of GHG emissions, and the countries of the world are involved in scientific, technical, and political-level discussions about climate change. We believe, in fact, that an effort to impose controls on U.S. GHG emissions would have far greater economic and political implications than FDA's attempt to regulate tobacco.

In light of Congress' attention to the issue of global climate change, and the absence of any direct or even indirect indication that Congress intended to authorize regulation under the CAA to address global climate change, it is unreasonable to conclude that the CAA provides the Agency with such authority. An administrative agency properly awaits congressional direction before addressing a fundamental policy issue such as global climate change, instead of searching for authority in an existing statute that was not designed or enacted to deal with the issue. We thus conclude that the CAA does not authorize regulation to address concerns about global climate change.

It follows from this conclusion, that GHGs, as such, are not air pollutants under the CAA's regulatory provisions, including sections 108, 109, 111, 112 and 202.

Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. at 52,928; see also Fabricant Memorandum, supra note 40, at 9–10.

472 See Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. at 52,929 n.3 ("As General Counsel Fabricant notes in his memorandum, a substance does not meet the CAA definition of 'air pollutant' simply because it is a 'physical, chemical, biological, radioactive *** substance or matter which is emitted into or otherwise enters the ambient air.' It must also be an 'air pollution agent."").

CAA authorization to regulate is generally based on a finding that an air pollutant causes or contributes to air pollution that may reasonably be anticipated to endanger public health or welfare. CAA section 302(g) defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive *** substance or matter which is emitted into or otherwise enters the ambient air. Such

⁴⁶⁸ *Id.* at 52,924–25, 52,928 (discussing *Brown & Williamson* as interpreted by the Fabricant Memorandum).

⁴⁶⁹ Id. at 52,925.

⁴⁷⁰ See Fabricant Memorandum, supra note 40, at 9–10 (concluding in light of Brown & Williamson that EPA does not have authority to regulate GHGs because fossil fuels are such an important part of the U.S. economy that it is unlikely Congress wanted to provide authority to regulate without explicit approval).

⁴⁷¹ EPA argued,

⁴⁷³ EPA explained.

effort to regulate CO₂ from motor vehicles would interfere with the authority of the Department of Transportation (DOT) to regulate fuel economy standards.⁴⁷⁴ Even if EPA had authority to regulate vehicle emissions under CAA section 202, EPA argued that such authority was discretionary and did not mandate that the agency regulate GHGs.⁴⁷⁵ Finally, EPA endorsed the Bush Administration's approach of delaying regulation of GHGs while it conducted further research on the causes of global warming and the best strategies for reducing such emissions at reasonable cost.⁴⁷⁶ EPA also argued that voluntary industry programs to reduce GHGs were more cost effective than the mandatory regulation sought by ICTA.⁴⁷⁷

term includes any precursors to the formation of any air pollutant[.]" The root of the definition indicates that for a substance to be an "air pollutant," it must be an "agent" of "air pollution." Because EPA lacks CAA regulatory authority to address global climate change, the term "air pollution" as used in the regulatory provisions cannot be interpreted to encompass global climate change. Thus, $\rm CO_2$ and other GHGs are not "agents" of air pollution and do not satisfy the CAA section $\rm 302(g)$ definition of "air pollutant" for purposes of those provisions. We reserve judgment on whether GHGs would meet the CAA definition of "air pollutant" for regulatory purposes were they subject to regulation under the CAA for global climate change purposes.

Id. at 52,928-29 (footnote omitted).

474 EPA argued,

Congress has already created a detailed set of mandatory standards governing the fuel economy of cars and light duty trucks, and has authorized DOT—not EPA—to implement those standards

 \dots [I]n light of the language, history, structure and context of the CAA and Congress' decision to give DOT authority to regulate fuel economy under [the CAFE program], it is clear that EPA does not have authority to regulate motor vehicle emissions of CO_2 and other GHGs under the CAA.

Id. at 52,929.

475 EPA explained,

In any event, the CAA provision authorizing regulation of motor vehicle emissions does not impose a mandatory duty on the Administrator to exercise her judgment. Instead, section 202(a)(1) provides the Administrator with discretionary authority to address emissions in addition to those addressed by other section 202 provisions . . . While section 202(a)(1) uses the word "shall," it does not require the Administrator to act by a specified deadline and it conditions authority to act on a discretionary exercise of the Administrator's judgment regarding whether motor vehicle emissions cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare.

Id.

476 EPA stated,

We do not believe... that it would be either effective or appropriate for EPA to establish GHG standards for motor vehicles at this time. As described in detail below, the President has laid out a comprehensive approach to climate change that calls for near-term voluntary actions and incentives along with programs aimed at reducing scientific uncertainties and encouraging technological development so that the government may effectively and efficiently address the climate change issue over the long term.

Id. at 52,929-30.

477 Id. at 52,931-33.

B. Petition Challenging Denial of Petition

In October 2003, 12 states, with Massachusetts as lead petitioner, five governmental entities and 14 environmental organizations filed eight separate but now consolidated petitions in the D.C. Circuit challenging both EPA's denial of the ICTA petition to regulate GHGs and the Fabricant Memorandum.⁴⁷⁸ The D.C. Circuit has scheduled oral argument for April 8, 2005.⁴⁷⁹ On June 22, 2004, the petitioners filed a brief presenting their arguments.⁴⁸⁰

To briefly summarize their arguments, the petitioners argue that section 202(a)(1) of the CAA unambiguously authorizes the Administrator to promulgate motor vehicle emissions standards for any air pollutant that he determines may reasonably be anticipated to endanger the public health or welfare. By using the word "any," Congress demonstrated its intent to delegate to EPA expansive authority to regulate all air pollutants causing harms to "the public health or welfare." Section 302(h) specifically defines "welfare" to include "effects on . . . weather . . . and climate." Indeed, the petitioners argue that EPA has acted unlawfully and arbitrarily in refusing to regulate GHGs from motor vehicles because section 202(a)(1) uses the mandatory term "shall" to require the EPA to regulate any pollutant causing harms to the "public health or welfare." The petitioners argue that nothing in the CAA's text or legislative history demonstrates that Congress intended to preclude EPA from regulating GHGs or the general subject of global warming.

The petitioners contend that *Brown & Williamson* does not apply to regulation of GHGs because a substantial history of legislation demonstrates Congress did not want FDA to prohibit all sales of tobacco, despite language in the FDCA that could be read to authorize FDA to regulate and ban tobacco as a dangerous drug; conversely, there is no similar evidence of legislation prohibiting EPA from regulating GHGs. While for many years the FDA stated that it had no authority to regulate tobacco and Congress clearly relied on the FDA's disclaimer of regulatory authority, there is no similar history of EPA denying authority to regulate GHGs; to the contrary, EPA during the Clinton Administration had suggested that it had some authority to regulate those gases. Furthermore, if the FDA had authority to regulate tobacco it arguably would have a duty to ban it completely, but the CAA would allow less drastic regulation of GHGs that would not decimate

⁴⁷⁸ See supra notes 41-44 and accompanying text.

⁴⁷⁹ Brief for Petitioners, supra note 41, at coverpage, 1.

⁴⁸⁰ Id. at 68.

⁴⁸¹ *Id.* at 15.

⁴⁸² *Id.* (citing Dep't. of HUD v. Rucker, 535 U.S. 125, 131 (2002) (noting that "the word 'any' has an expansive meaning, that is, 'one or some indiscriminately of whatever kind'")).

⁴⁸³ Id.

⁴⁸⁴ Id. at 45.

⁴⁸⁵ See generally id. at 15–35.

⁴⁸⁶ See generally id. at 36–38.

⁴⁸⁷ See generally id.

Fossil Fuel users.⁴⁸⁸ Finally, petitioners argue that the DOT's authority to regulate vehicle mileage does not preclude EPA from regulating GHGs from motor vehicles.⁴⁸⁹

For the purposes of this Article, it is especially significant how the petitioners sought to meet Article III standing requirements. The 12 states and five government entities allege that the GHGs from vehicles are increasing global warming and causing them injuries from "loss of stateowned property to rising sea-levels, including permanent losses from inundation and periodic losses due to storm surge flooding," increased emergency response costs and natural resource damages from flooding. worsened ozone pollution resulting in increased regulatory costs, health care costs and damage to natural resources, loss of water resources from reduced snowpack, and increased wildfires. 490 The 14 environmental organizations allege global warming causes their members to suffer harms from aesthetic and recreational losses due to retreating glaciers, and adverse health impacts from increased ozone and crop losses due to more extreme weather events. 491 They allege these harms are redressable by a court order requiring regulation of GHGs that would delay and reduce the harms from global warming.492

C. May EPA Regulate GHGs under the CAA's New Source Review Program?

Foote has argued in a recent article that EPA has a duty to consider significant unregulated pollutants such as $\mathrm{CO_2}$ and other GHGs when it reviews, pursuant to the CAA's NSR program, proposed permits for new power plants, including fossil-fuel burning power plants, even if the Fabricant Memorandum is correct that the agency may not directly regulate them. The NSR permit requirement applies to "major new sources," including major modificiations, emitting a threshold level of an air pollutant in a nonattainment area, or one emitting either 100 or 250 tons per year (tpy) in an attainment area. According to Foote, the NSR program requires EPA or state permitting authorities to consider alternative fuels and processes, as well as unregulated pollutants such as $\mathrm{CO_2}$, when it determines what is the best available control technology for new power plants; not just which

⁴⁸⁸ See generally id. at 37-38.

⁴⁸⁹ See generally id. at 38–43.

⁴⁹⁰ Id. at 2-3.

⁴⁹¹ *Id.* at 3-4.

⁴⁹² Id. at 4.

⁴⁹³ See Foote, supra note 50, at 10,643, 10,662-64 (proposing that EPA regulate CO₂ through the program for issuing permits to new coal-burning power plants because EPA has authority to regulate otherwise unregulated pollutants and consider alternative technologies in deciding what is the best available technology).

⁴⁹⁴ See 42 U.S.C. § 7479(1) (2000) (defining "major emitting facility"); 40 C.F.R. §§ 51.165, 52.21 (2004) (providing nonattainment and attainment area NSR regulations); see also Foote, supra note 50, at 10,644 (discussing the CAA's NSR program). Foote's article largely avoids the more difficult question of when a "modified" existing source requires an NSR permit and focuses on new sources. Id. at 10,664. This Article will not address modified sources, but the question of who has standing should be the same for both new and modified NSR sources.

technology is best at reducing regulated pollutants such as sulfur dioxide.⁴⁹⁵ Whether EPA or a state permitting agency has fulfilled its duty to consider all appropriate information in evaluating a NSR permit is reviewable under the APA's arbitrary and capricious standard.⁴⁹⁶

There are two distinct NSR programs. First, the nonattainment area NSR requirements (the NNSR program) in air quality regions that have failed to attain the health-based national ambient air quality standards (NAAQS) for criteria pollutants, e.g., ozone, are intended to facilitate states' meeting the NAAQS. Pursuant to the NNSR program, each major new or modified facility in a nonattainment area must achieve the lowest achievable emissions rate (LAER), which requires "the most stringent emissions rate" contained in any state's plan for "such class or category of source, unless the owner or operator demonstrates it is not feasible." To achieve attainment as soon as possible, the CAA defines LAER more stringently than the "best available control technology" (BACT) standard used in attainment areas. In only very limited circumstances may an applicant in a nonattainment area avoid LAER for cost reasons.

Second, in areas that comply with the NAAQS, the CAA's "Prevention of Significant Deterioration of Air Quality" (PSD) program requires preconstruction review of all proposed major new or modified sources of air pollutants to avoid degrading air quality to levels below the NAAQS. ⁵⁰¹ Under the PSD program, a proposed major new facility must comply with BACT. ⁵⁰² The CAA defines BACT for any major new facility as "an emission limitation based on the maximum degree of [pollutant] reduction . . . which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for [the] facility." ⁵⁰³

For both PSD and NNSR permits, either EPA itself or a state authorized to issue such permits must consider all technically available alternatives to pollution control, not just those proposed by the applicant.⁵⁰⁴ Although EPA

⁴⁹⁵ See Foote, supra note 50, at 10,650–67; see also In re North County Res. Recovery Assocs., 2 E.A.D. 229, 230, 1986 EPA App. LEXIS 14 (Adm'r 1986) (concluding that EPA must consider emissions of unregulated toxic pollutants raised by citizens in evaluating BACT).

⁴⁹⁶ See 5 U.S.C. § 706(a)(2); Alaska Dep't of Envtl. Conservation v. Envtl. Prot. Agency (*Alaska*), 540 U.S. 461, 496–97 (2004) (discussing EPA's duty to evaluate air permits initially approved by state environmental agency under APA's arbitrary and capricious standard).

⁴⁹⁷ 42 U.S.C. § 7502(c)(1), (5) (2000).

⁴⁹⁸ *Id.* § 7501(3) (defining LAER); *see id.* § 7503(a)(2) (requiring LAER for major new sources in nonattainment areas).

⁴⁹⁹ Compare id. § 7501(3) (defining LAER), with id. § 7479(3) (defining BACT). See also Foote, supra note 50, at 10,646–48 (comparing requirements of LAER and BACT, and concluding LAER is more stringent).

⁵⁰⁰ Foote, *supra* note 50, at 10,648.

⁵⁰¹ See 42 U.S.C. § 7470 (2000) (congressional declaration of purpose to prevent significant deterioration of air quality); *Alaska*, 540 U.S. at 468 (discussing the PSD program).

⁵⁰² 42 U.S.C. § 7475(a)(4) (2000); *Alaska*, 540 U.S. at 468, 484–485 (discussing BACT requirements in PSD areas).

⁵⁰³ 42 U.S.C. § 7479(3) (2000).

⁵⁰⁴ Foote, *supra* note 50, at 10,647; *see* Memorandum from John Calcagni, Director, Air Quality Management Division, U.S. EPA, to EPA Regional Air Directors 4 (June 13, 1989)

and state agencies conducting NSR review have often focused on "end of stack" pollution controls, the statute and its legislative history demonstrate that Congress wanted the NSR process to include evaluation of alternative fuels or production techniques. Furthermore, the "purposes" portion of the PSD statute requires EPA or an authorized state to protect the public health and welfare from any adverse effects that "may reasonably be anticipated to occur from air pollutants" even after an area achieves attainment. Foote argues that this provision requires EPA to consider the impacts of all pollutants, including GHGs, and not just regulated pollutants. EPA's Environmental Appeals Board (EAB), which consists of three administrative law judges acting in lieu of the Administrator, has interpreted the evaluation of "environmental impacts" in BACT cases to include consideration of unregulated pollutants that are not "subject to regulation" under PSD. 507

Both the NNSR and PSD NSR programs require permitting agencies to consider alternatives to a proposed new source, including technologies that could reduce GHGs, although there are some differences between the two types of NSR programs.⁵⁰⁸ According to Foote, in PSD areas, a commenter may have the burden of raising a particular alternative to insure that the permitting agency considers it.⁵⁰⁹ By contrast, for NNSR permits, the permitting agency probably has a duty to consider reasonable alternatives even if no commenter raises them.⁵¹⁰

Foote argues that both EPA and a state NSR permitting agency have a duty under the APA to provide a reasonable justification for their permitting decisions, and that, in light of the requirements to consider unregulated pollutants and reasonable alternative technologies, a reasoned decision

⁽discussing "core criteria" of any BACT analysis), available at http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/topdawn.pdf.

⁵⁰⁵ See S. REP. No. 95-127, at 31 (1977) (authorizing permitting agencies, in determining BACT, to consider "energy, environmental, and economic impacts" as well as community concerns of the overall impact of the source on air quality); 123 Cong. Rec. 18,742 (1977) (documenting that Senate floor adoption of Up Amendment No. 387 added term "innovative fuel combustion techniques" to "leave no doubt" that BACT review includes all feasible production methods, including coal gasification); Foote, *supra* note 50, at 10,647–48 (describing the CAA legislative history).

⁵⁰⁶ 42 U.S.C. § 7470(1), (5) (2000); Foote, *supra* note 50, at 10648–49.

⁵⁰⁷ See In re Steel Dynamics, Inc., 9 E.A.D. 165, 189 (EAB 2000), available at http://www.epa.gov/boarddec/disk11/steeldyn.pdf (citing In re North County Resource Recovery Associates, infra, as interpreting "statutory and regulatory definitions of BACT as requiring consideration of environmental impacts"); In re Genesee Power Station, 4 E.A.D. 832, 848 1993 EPA App. LEXIS 23 (EAB 1993) (concluding BACT's definition allows "consideration of the environmental consequences of choosing one control technology over another"); see also In re North County Resource Recovery Associates, 2 E.A.D. 229, 230, 1986 EPA App. LEXIS 14 (Adm'r 1986) (concluding EPA must consider emissions of unregulated toxic pollutants raised by citizens in evaluating BACT); Foote, supra note 50, at 10,649–50 (discussing EAB decisions requiring EPA to consider unregulated pollutants in conducting BACT analysis).

⁵⁰⁸ See Foote, supra note 50, at 10,650–51 (comparing the two programs).

⁵⁰⁹ See id. (discussing the view that the commenter bears the burden of presenting nonobvious alternatives).

 $^{^{510}}$ See id. (describing express NNSR provisions requiring states to justify construction of a new pollution source).

requires addressing GHGs.⁵¹¹ In *Alaska Department of Environmental Conservation v. Environmental Protection Agency* (*Alaska*),⁵¹² the Supreme Court upheld EPA's authority to reject a state BACT permit and stop construction of a major emitting facility approved by the state permitting authority that EPA believed failed to consider reasonable alternative technology.⁵¹³ The Alaska Department of Environmental Conservation (ADEC) had initially proposed selective catalytic reduction (SCR) as BACT for a proposed facility, but ADEC ultimately required a less effective pollution technology when the permit applicant complained that SCR was too expensive.⁵¹⁴ In rejecting SCR as BACT, ADEC had ignored a letter from EPA protesting that "elimination of SCR as BACT based on cost-effectiveness grounds is not supported by the record and is clearly erroneous."⁵¹⁵

Although the CAA provides states with considerable discretion in issuing BACT permits, the Court concluded that two provisions in CAA give EPA the authority to block construction of a major emitting facility if EPA finds that the state has failed to make a reasonable permit determination.⁵¹⁶ First, CAA section 113(a)(5) provides EPA with the authority to issue orders stopping construction of any new or modified source when a state is not acting in compliance with any CAA requirement relating to the construction of such a new or modified source. 517 The Court observed that EPA itself had "recognize[d] that its authorization to issue a stop order may be exercised only when a state permitting authority's decision is unreasonable."518 Second, CAA section 167 requires EPA to "take such measures, including issuing an order, or seeking injunctive relief, as necessary to prevent the construction or modification of a major emitting facility which does not conform to the requirements of this part," including state permits that do not require appropriate BACT.⁵¹⁹ The Court "conclude[d] that EPA has supervisory authority over the reasonableness of state permitting authorities' BACT determinations and may issue a stop construction order, under [sections] 113(a)(5) and 167, if a BACT selection is not reasonable."520 In reviewing EPA's exercise of its statutory authority under the APA, the Court "further conclude[d] that, in exercising that authority, the Agency did not act arbitrarily or capriciously in finding that ADEC's BACT decision in this instance lacked evidentiary support. EPA's orders, therefore, were

⁵¹¹ See id. at 10,643-44, 10,651 (discussing CAA requirements for reasoned decision making).

^{512 540} U.S. 461 (2004).

⁵¹³ *Id.* at 468–69, 488–96; Foote, *supra* note 50, at 10,643–44, 10,651.

⁵¹⁴ Alaska, 540 U.S. at 475-77.

⁵¹⁵ Id. at 479.

⁵¹⁶ *Id.* at 488–96, 502.

⁵¹⁷ See 42 U.S.C. § 7413(a)(5) (2000); Alaska, 540 U.S. at 484.

⁵¹⁸ Alaska, 540 U.S. at 490.

⁵¹⁹ See 42 U.S.C. § 7477; Alaska, 540 U.S. at 484.

⁵²⁰ *Alaska*, 540 U.S. at 502 (emphasis added).

neither arbitrary nor capricious."⁵²¹ Foote argues the *Alaska* case implies that EPA *itself* has a duty to make a reasonable BACT determination.⁵²²

To summarize Foote's complex analysis, both EPA and state permitting authorities have some duty under NNSR and PSD NSR to consider unregulated pollutants that could affect the environment, and to consider alternative technologies that could reduce the harms from both regulated and unregulated pollutants.⁵²³ Because of the growing evidence that GHGs cause global warming. Foote argues that NSR permitting authorities have a duty to consider new technologies, such as coal gasification, that could reduce CO₆ or other GHGs from fossil fuels at new coal-fired power plants.⁵²⁴ Foote contends that NNSR permitting authorities have a duty to consider GHGs and reasonable alternative technologies even if no one raises them during a permit's comment period. 525 For PSD NSR permits, a commenter may have the burden of raising a particular alternative to ensure that the permitting agency considers it.526 At a minimum, if an NSR permitting authority fails to respond to comments about GHGs or technologies such as coal gasification that can reduce GHGs, in light of the recent Alaska decision, Foote argues that such an agency would be acting arbitrarily and capriciously in violation of the APA, and that EPA would have a duty to reject any permit that fails to consider these issues. 527 If the NSR program requires consideration of the impacts of unregulated pollutants such as GHGs, then EPA must consider GHGs as a secondary issue when evaluating NSR permit applications for new power plants even if the Fabricant Memorandum is correct that EPA lacks any primary authority to regulate GHGs.⁵²⁸ The argument that EPA and states should consider IGCC clean-coal technology is much stronger now that AEP has pledged to build one or more commercial-scale (up to 1,000 megawatts) IGCC plants as soon as 2010, and has estimated that a large-scale IGCC plant could produce energy at the competitive cost of \$1,300 per installed kilowatt.⁵²⁹

⁵²¹ Id.

⁵²² See Foote, supra note 50, at 10,643–44 (arguing EPA must use "reasoned decisionmaking" reviewable under APA in evaluating NSR permits); see also Alaska, 540 U.S. at 496–97 (discussing EPA's duty to evaluate air permits initially approved by a state environmental agency using the APA's arbitrary and capricious standard); 5 U.S.C. § 706(a)(2) (2000) (granting courts the authority to set aside agency action that is arbitrary or capricious).

⁵²³ See Foote, supra note 50, at 10,649–67; see also In re North County Res. Recovery Assoc., 2 E.A.D. 229, 230–31, 1986 EPA App. LEXIS 14 (Adm'r 1986) (concluding that EPA must consider emissions of unregulated toxic pollutants raised by citizens in evaluating BACT).

⁵²⁴ See Foote, supra note 50, at 10,649–67; see also In re North County Res. Recovery Assoc., 2 E.A.D. 229, 230, 1986 EPA App. LEXIS 14 (Adm'r 1986) (concluding EPA must consider emissions of unregulated toxic pollutants raised by citizens in evaluating BACT).

⁵²⁵ See Foote, supra note 50, at 10,650–51.

⁵²⁶ *Id*.

⁵²⁷ See Foote, supra note 50, at 10,643-44; see also Alaska, 540 U.S. at 496-97; 5 U.S.C. § 706(a)(2) (2000).

⁵²⁸ See Foote, supra note 50, at 10,650–51.

⁵²⁹ AEP News Release, *supra* note 49 (pledging to build at least one IGCC plant and estimating IGCC plant costs as low as \$1300 per installed kilowatt); AEP REPORT, *supra* note 49, at 49–52. *See generally* Foote, *supra* note 50, at 10,659–60 (discussing the ability of IGCC coal gasification technology to remove most CO₂ and mercury from coal); Korostash, *supra* note 50,

The Foote article, however, does not address who would have standing to challenge an EPA or state agency failure to consider GHGs in the NSR permit process. It is necessary to address the issue of whether anyone has standing to challenge impacts that harm all persons equally, or in other words, whether "injury to all is injury to none." ⁵³⁰

D. Standing and GHGs

1. GHGs and the Zone of Interests

A plaintiff's suit must fall within the zone of interests protected by the relevant statute or constitutional provision.⁵³¹ In *Bennett v. Spear*, the Supreme Court stated that "the breadth of the zone of interests varies according to the provisions of law at issue."⁵³² The breadth of the zone of interests may depend on whether Congress has specifically authorized a citizen's suit⁵³³ or a plaintiff is merely relying on the general rights contained in the APA.⁵³⁴

In *Bennett*, Justice Scalia's majority opinion held that the plaintiffs, who were ranchers and irrigation districts challenging water restrictions designed to protect endangered fish, were within the ESA's zone of interests for standing under both the ESA and the APA even though the plaintiffs' suit was based on secondary provisions in the statute requiring the Secretary of

at 325 (discussing the ability of IGCC to remove sulfur from coal and improve energy efficiency); *supra* notes 49–50 and accompanying text.

⁵³⁰ In *Covington*, Judge Gould wrote, "Under some precedents, the existence of a widely shared injury may be thought to compel a conclusion that the injury was not 'concrete and particularized.' This theory may be summed, at least by detractors, as 'injury to all is injury to none' for standing purposes." 358 F.3d 626, 650–51 (9th Cir. 2004) (Gould, J., concurring).

⁵³¹ See Bennett v. Spear 520 U.S. 154, 162–63 (1997) (describing the zone of interests standard as a prudential limitation rather than a mandatory constitutional requirement); Data Processing, 397 U.S. 150, 153–54 (1970) (requiring a plaintiff seeking standing under the APA to demonstrate that his suit is "arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question"); Buzbee, supra note 146, at 778–82 (arguing the Supreme Court uses the "zone of interests" test to determine whether the plaintiff meets prudential standing requirements).

⁵³² Bennett, 520 U.S. at 163; see Buzbee, supra note 146, at 782 (discussing the zone of interest test under Bennett).

⁵³³ See Bennett, 520 U.S. at 164–72 (concluding that the requirement of 16 U.S.C. § 1533(b)(2) that FWS use "the best scientific data available" and "consider[] the economic impact, and any other relevant impact, of specifying any particular area as critical habitat" gave plaintiffs standing to sue under the Endangered Species Act's citizen suit provision, id. § 1540(g)).

See Bennett, 520 U.S. at 161–63 ("We have made clear... that the breadth of the zone of interests varies according to the provisions of law at issue, so that what comes within the zone of interests of a statute for purposes of obtaining judicial review of administrative action under the 'generous review provisions' of the APA may not do so for other purposes." (citing Clarke v. Sec. Indus. Ass'n, 479 U.S. 388, 400 n.16 (1987) (quoting Data Processing, 397 U.S. 150, 156 (1970)))); id. at 172–79 (holding that plaintiffs had standing under APA to challenge whether agencies violated § 7 of the ESA, 16 U.S.C. § 1536, which requires, inter alia, that each agency "use the best scientific and commercial data available," § 1536(a)(2)); see also 5 U.S.C. §§ 702, 704, 706 (2000); Buzbee, supra note 146, at 782–84 (discussing Bennett's analysis of APA cause of action).

the Interior to use the best scientific evidence and to consider economic impacts when he protects endangered species and their critical habitat, and not on the statute's primary purpose, which is protecting endangered species. Because the ESA's citizen suit provision applies to "any person," Justice Scalia concluded that the statute applies to property owners and others suffering economic losses from the statute who assert that the Secretary has overenforced the critical habitat provisions in section 4 of the ESA by failing to use the best scientific evidence or to consider the economic consequences when designating habitat for a species. Unlike constitutional limits on standing, Congress may expressly override prudential zone of interest limitations by providing expansive citizen suit provisions with broad standing.

The citizen suit provisions, however, did not reach alleged violations by the Secretary of section 7 of the ESA, which governs the Secretary's consultation with other federal agencies and preparation of a biological opinion about the species and its critical habitat. Nonetheless, because the APA allows a person "adversely affected or aggrieved by agency action within the meaning of the relevant statute" to challenge agency decisions when "there is no other adequate remedy in a court," the Court held that

⁵³⁵ See Bennett, 520 U.S. at 164–72 (concluding 16 U.S.C. § 1533(b)(2)'s requirement that FWS use "the best scientific data available" and "consider[] the economic impact, and any other relevant impact, of specifying any particular area as critical habitat" gave plaintiffs standing to sue under statute's citizen suit provision, id. § 1540(g)); 520 U.S. at 172–79 (holding that plaintiffs had standing under APA to challenge whether agencies violated § 7 of the ESA, 16 U.S.C. § 1536, which requires, inter alia, that each agency "use the best scientific and commercial data available," § 1536(a)(2)).

^{536 16} U.S.C. § 1540(g) (2000).

⁵³⁷ See Bennett, 520 U.S. at 164–72 (concluding 16 U.S.C. § 1533(b)(2)'s requirement that FWS use "the best scientific data available" and "consider[] the economic impact, and any other relevant impact, of specifying any particular area as critical habitat" gave plaintiffs standing to sue under statute's citizen suit provision, *id.* § 1540(g)).

⁵³⁸ See Bennett, 520 U.S. at 162–66 (stating that "unlike their constitutional counterparts, [prudential standing requirements] can be modified or abrogated by Congress," and concluding citizen suit provision abrogated zone of interest limitation) (citing Warth v. Seldin, 422 U.S. 490, 501 (1975)).

⁵³⁹ See 16 U.S.C. § 1536(a)(2) (2000) (requiring each federal agency to consult with Secretary of the Interior whenever agency action may "jeopardize the continued existence of any endangered or threatened species"); *id.* 1536(b) (requiring Secretary to prepare biological opinion). The Court concluded that the Secretary's alleged omission of the required procedures of decision making under *id.* § 1536 were not reviewable under either citizen suit provision, *id.* § 1540(g)(1)(A) or (C), because the Secretary's maladministration in implementing or enforcing the ESA was not a "violation" of the ESA within the meaning of those provisions. *See Bennett*, 520 U.S. at 173–74. The Court, however, did conclude that the plaintiffs could challenge the Secretary's alleged maladministration under the APA because the ESA does not preclude such review, and the claim that petitioners will suffer economic harm because of an erroneous use of scientific evidence is within the zone of interests protected by 16 U.S.C. § 1536. *See Bennett*, 520 U.S. at 175–77. Additionally, the Court concluded that the Biological Opinion constituted final agency action for APA purposes, and hence the plaintiff's claims were reviewable. *Bennett*, 520 U.S. at 177–78.

⁵⁴⁰ 5 U.S.C. § 702 (2000); *see* Buzbee, *supra* note 146, at 782–84 (discussing *Bennett*'s analysis of the APA cause of action).

⁵⁴¹ 5 U.S.C. § 704 (2000); *Bennett*, 520 U.S. at 161–62, 175.

the plaintiffs' alleged economic injuries were within the APA's zone of interests as applied to section 7 and that they had standing under the APA to challenge whether the Secretary acted arbitrarily and capriciously in preparing the biological opinion by failing to follow section 7's requirement that an agency "use the best scientific and commercial data available." ⁵⁴² Under the APA, a plaintiff may seek redress for an injury allegedly caused by an agency's failure to comply with a statute's primary or secondary requirements unless there is evidence Congress intended to preclude such a suit. ⁵⁴³

If the Fabricant Memorandum is correct that Congress specifically intended to preclude EPA from regulating GHGs under the CAA, then any global warming suit seeking such regulation must fail, because it would be outside the statute's zone of interests for standing.⁵⁴⁴ If the reasoning in the Fabricant Memorandum is valid, a plaintiff could not sue the agency under the CAA's citizen suit provision, which allows "any person" to sue if the EPA Administrator fails to perform "any act or duty under this chapter which is not discretionary with the Administrator," because EPA would not have a mandatory duty to regulate GHGs.⁵⁴⁵ Nor could a plaintiff sue under the APA to compel EPA to regulate GHGs, because Congress did not want EPA to have authority to regulate pollutants contributing to global warming, and therefore, such a suit would not be "arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question."546 In Bennett, the Court stated that a plaintiff may not bring a suit under the APA to enforce a statutory provision if Congress specifically intends to preclude all suits based on that provision.⁵⁴⁷

If the Foote analysis is correct, however, EPA or state permitting authorities must consider GHGs as unregulated pollutants during an NSR permit review even if the Fabricant Memorandum is correct that EPA cannot regulate GHGs directly. If Foote is correct that EPA and state permitting agencies have a duty to consider unregulated pollutants such as GHGs, then a plaintiff raising such issues would be within the statute's zone of interests and could sue under the CAA's citizen suit provision if that duty is mandatory, such as meeting a statutory deadline, or under the APA if exercise of the duty involves discretion. Following Bennett's reasoning,

⁵⁴² See Bennett, 520 U.S. at 172-79 (holding that plaintiffs had standing under the APA to challenge whether agencies violated ESA § 7, 16 U.S.C. § 1536, which requires, *inter alia*, that each agency "use the best scientific and commercial data available").

⁵⁴³ See Bennett, 520 U.S. at 175–77 (concluding that in enacting the ESA, Congress did not intend to preclude APA-based causes of action).

⁵⁴⁴ See infra notes 531-43 and accompanying text.

⁵⁴⁵ 42 U.S.C. § 7604(a)(2) (2000) (authorizing citizen suits against the Administrator "where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator").

⁵⁴⁶ Data Processing, 397 U.S. 150, 153–54 (1970).

⁵⁴⁷ Bennett, 520 U.S. at 175-77.

⁵⁴⁸ See 42 U.S.C. § 7604(a)(2) (2000) (authorizing citizen suits against the Administrator "where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator").

⁵⁴⁹ See 5 U.S.C. § 702 (2000) ("A person suffering legal wrong because of agency action, or

the consideration of GHGs would be a valid secondary purpose within the NSR's zone of interests if Foote's substantive analysis is correct.⁵⁵⁰

As Bennett demonstrates, even if an issue does not come within a statute's citizen suit provisions, the APA may provide an alternate avenue for a suit against an agency.⁵⁵¹ Even if the CAA's citizen suit provisions do not apply because EPA or a state permitting agency must exercise discretion in determining which GHGs are relevant unregulated pollutants for the NSR review process, a plaintiff who is "adversely affected or aggrieved by agency action within the meaning of the relevant statute"552 could challenge the EPA or state permitting agency's discretionary decision not to consider GHGs during an NSR permit review under the APA's arbitrary and capricious standard⁵⁵³ because there would be "no other adequate remedy in a court."⁵⁵⁴ Under Foote's analysis, if EPA or a state permitting authority fails to respond to commenters who propose alternative technologies to reduce GHGs, then a plaintiff could sue the agency under the APA alleging that the agency's failure to consider GHGs was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."555 It arguably would be arbitrary and capricious under the APA for a permitting agency during an NSR permit review not to consider the environmental consequences of the large amounts of unregulated GHGs that would be emitted by a coal-burning plant that could have a life expectancy of over 50 years. 556

2. Who is Injured?

Even if GHGs are within the NSR provisions' zone of interests, a plaintiff must demonstrate an injury in fact. The evidence of harm from global warming has grown stronger each time IPCC has reviewed the issue every few years. ⁵⁵⁷ Nevertheless, an Alaska Native already harmed by global warming would have a much stronger case for injury than a plaintiff who can allege only general and common injuries from global warming. Because the greatest impacts of global warming are occurring in arctic regions, an Alaska Native whose village or home is destroyed by melting permafrost or coastal

adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof"); *id.* § 706(2)(A) (establishing the arbitrary and capricious standard of review); *Data Processing*, 397 U.S. at 153–54 (stating a plaintiff suing under APA must show his suit is "arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question"); *see also Bennett*, 520 U.S. at 160, 174.

⁵⁵⁰ See Bennett, 520 U.S. at 164-72 (allowing standing where plaintiffs relied on secondary provisions in statute).

⁵⁵¹ See id. at 161-63, 172-79 (discussing plaintiff's APA cause of action).

⁵⁵² 5 U.S.C. 702 (2000); Buzbee, *supra* note 146, at 782–84 (discussing *Bennett*'s analysis of APA cause of action).

⁵⁵³ 5 U.S.C. § 706(2)(A) (2000).

⁵⁵⁴ *Id.* § 704; *Bennett*, 520 U.S. at 161–62, 175.

⁵⁵⁵ 5 U.S.C. § 706(2)(A) (2000).

⁵⁵⁶ See id.

⁵⁵⁷ See supra notes 2-4 and accompanying text (citing IPCC report showing evidence of global warming).

flooding could allege very specific injuries.⁵⁵⁸ Conversely, a citizen who can allege merely general injuries from global warming raises Justice Scalia's concern that such injuries are better addressed by the political branches. What about a plaintiff in the contiguous 48 states who challenges an EPA or a state failure to consider GHGs during a NSR permit review? Based on prudential considerations, a court might limit such suits to those who are suffering concrete injuries from regulated pollutants, e.g., sulfur dioxide and mercury, emitted by a power plant.

Even if no one has standing to raise global warming issues directly during the NSR permit process, a plaintiff who is injured by regulated pollutants and has standing might use the NSR process to require states and EPA to reduce GHGs indirectly by forcing EPA or states to consider technologies that reduce both GHGs and regulated pollutants. Because power plants produce immense amounts of regulated pollutants, including mercury and SO₂, ⁵⁵⁹ plaintiffs who live near a proposed new coal plant would have standing to sue EPA or a state if it fails to consider appropriate alternative technologies when it conducts an NSR review in deciding whether to approve a permit for the plant, especially if a commenter has suggested such a technology during the public comment period. 560 Thus, a plaintiff who has standing to challenge the regulation of pollutants in an NSR permit should also be able to raise the related issue of GHGs because the statute requires consideration of all the environmental impacts of a proposed plant, including unregulated pollutants such as CO, and alternative technologies such as coal gasification that can reduce both regulated pollutants, such as mercury, as well as unregulated ones including CO₂, ⁵⁶¹ Because some alternative technologies such as coal gasification could reduce both GHGs and regulated pollutants, a plaintiff who is injured by regulated pollutants would have standing to compel EPA or permitting states to consider such advanced technologies even if a court did not allow them standing to consider GHGs alone. 562

E. Amending the CAA to Include GHGs

In the future, Congress should amend the CAA to include regulation of GHGs. An amended CAA should include citizen suit provisions that authorize any person to sue the EPA Administrator if the Agency fails to

⁵⁵⁸ See supra notes 82–84 and accompanying text (citing sources identifying specific harm in Alaska caused by global warming).

⁵⁵⁹ Robert Melnbardis, Power Plants Top Canada-U.S. Air Polluters, Watchdog Says, REUTERS, June 2, 2004 (reporting that a Commission for Environmental Cooperation study found the top air polluters in the United States and Canada to be coal- and oil-fired power plants, producing 45% of the 755,502 tons of toxic air releases in 2001, including hydrochloric and sulfuric acids, and coal-burning power plants were responsible for 64% of all mercury air emissions).

⁵⁶⁰ See Foote, supra note 50, at 10,654.

 $^{^{561}}$ See generally Foote, supra note 50, at 10,659–60 (discussing the ability of IGCC coal gasification technology to remove most $\rm CO_2$ and 90 to 95% of mercury from coal).

⁵⁶² See Foote, supra note 50, at 10,671–72 (discussing bases for APA challenges to NSR permit decisions).

comply with any mandatory duties to regulate GHGs in the revised CAA. Congress should also authorize citizen suits against firms that exceed statutory limits on GHGs and provide for civil penalties and injunctive relief for such violations.

A statute that explicitly regulates GHGs and specifically authorizes citizen suits would solve many of the vexing standing issues in climate change cases. If Congress in the proposed statute clearly defines what is a concrete injury, such as flood damage from rising sea level or weather damage that is more likely than not from warming, it is likely that the Supreme Court would recognize such suits provide the requisite injury-infact for standing despite the fact that many Americans may suffer relatively similar injuries. Additionally, the use of civil penalties against sources that violate GHG limits would minimize the vexing problems of causation and redressability that would arise if courts sought to measure the actual damages caused by a particular GHG source. Even if all penalties are paid to the government, the Supreme Court in Laidlaw recognized that the deterrent effect of civil penalties may benefit a plaintiff sufficiently to justify standing for a citizen suit even if a plaintiff does not receive any direct compensation and even if the court declines to impose an injunction against the defendant.563

VII. CONCLUSION: STANDING FOR CLIMATE CHANGE PLAINTIFFS UNDER NEPA AND THE CAA

A climate change plaintiff must meet standing requirements. Although an Alaska Native might soon be able to show such clear injuries from global warming to satisfy even Justice Scalia's definition of "concrete injuries," the average U.S. citizen currently only experiences minor and general harms from global warming. ⁵⁶⁵ Can a citizen with only relatively minor injuries from global warming obtain standing?

Because NEPA is a purely procedural statute, Justice Scalia's analysis in footnote seven of *Defenders*, which addresses standing for procedural rights plaintiffs who have or may suffer a concrete injury, suggests that courts should apply a relaxed standing analysis.⁵⁶⁶ The "reasonable possibility" standard in the Ninth and Tenth Circuits is closer to footnote seven's spirit and congressional intent for NEPA.⁵⁶⁷ The demonstrable and substantial probability parts of the four-part *Florida Audubon* decision are inconsistent with at least the spirit of footnote seven in *Defenders*, as well as congressional intent for NEPA, which requires an agency to prepare an environmental impact statement whenever its actions could reasonably lead

⁵⁶³ Laidlaw, 528 U.S. 167, 183–86 (2000).

⁵⁶⁴ See supra Part III.B.2.d.

⁵⁶⁵ It is a legitimate argument, however, that potentially severe future harms should not be discounted simply because their full severity is not yet apparent. While agencies implementing NEPA must follow a regulation to deal with uncertainty, see 40 C.F.R. § 1502.22 (2004), it is unclear whether courts would imply a similar requirement under the CAA.

⁵⁶⁶ See supra Part III.B.2.e.

⁵⁶⁷ See supra Part V.E.

to significant environmental impacts.⁵⁶⁸ A "reasonable possibility" standard would appropriately allow NEPA plaintiffs to gain standing to challenge agency environmental assessments that fail to address plausible environmental impacts or reasonable alternatives, including relevant cases where an agency should examine how its actions will increase GHGs and contribute to global warming trends.⁵⁶⁹ A plaintiff who might reasonably be harmed by a government action affecting GHGs should be able to obtain standing to force a government agency to consider climate change when it prepares an environmental assessment on such issues as fuel mileage, incentives for alternative fuels, or connecting Mexican power plants to the American power grid.⁵⁷⁰ In each of those examples, a plaintiff who lives near where the greatest impacts of such proposed actions would occur should have standing.

Because the Fabricant Memorandum and EPA's September 8, 2003 denial of the petition to regulate GHGs raise significant questions about whether Congress intended EPA to regulate GHGs, courts may conclude that the CAA does not allow EPA to regulate GHGs directly.⁵⁷¹ The NSR process for approving permits for new power plants, however, may authorize EPA and state permitting agencies to consider unregulated pollutants such as GHGs. If the courts accept Foote's thesis that EPA and state permitting agencies have a duty to consider unregulated pollutants such as GHGs when they review proposed permits for new coal-burning plants under the NSR process, a plaintiff could sue the agency under the APA alleging that the agency's failure to consider the environmental impacts of GHGs emitted by a proposed plant or to evaluate alternative technologies that could reduce GHGs was "arbitrary and capricious" under the APA.⁵⁷²

Foote's article, however, does not address who would have standing in an NSR case to raise GHG issues.⁵⁷³ Judge Gould's concurring opinion in *Covington* specifically addressed standing issues raised by global injuries from CFCs, but his analysis is also helpful for potential suits involving the NSR process.⁵⁷⁴ For prudential reasons, Judge Gould suggested that a court could limit *global* injury suits to those who suffer relatively direct *local* injuries from CFCs.⁵⁷⁵ Similarly, in the NSR process, a court might limit GHG challenges to those who suffer direct injuries from regulated pollutants. Such prudential limitations would insure that suits involving global warming are limited to a reasonable number of plaintiffs, but the use of a "direct" injury limitation on plaintiffs would still enable some to sue EPA or states to demand consideration of GHGs as a secondary factor in the NSR permit process.⁵⁷⁶

⁵⁶⁸ See supra Part V.C.

⁵⁶⁹ See supra Part V.D.

⁵⁷⁰ See supra Part VI.D.1.

⁵⁷¹ See supra notes 458-77 and accompanying text.

⁵⁷² See supra Part VI.C.

⁵⁷³ See supra Part VI.D.

⁵⁷⁴ See Covington, 358 F.3d 626, 650–55 (9th Cir. 2004) (Gould. J, concurring).

⁵⁷⁵ See supra notes 305-09 and accompanying text.

⁵⁷⁶ See supra Part VI.D.2.

In the near future, Congress could resolve many of the standing issues concerning global warming by enacting a statute defining which types of injuries from global warming are cognizable in the federal courts and authorizing specific remedies for such injuries. The Justice Kennedy argued in his *Defenders* concurrence, Congress has considerable latitude in defining which injuries are sufficient for standing. By specifically authorizing citizen suits against either government agencies or polluters who exceed proposed GHG limits, and by defining specific remedies, Congress could avoid many of the vexing causation and redressability issues that are inherent when numerous sources around the world contribute in complex and not fully understood ways to a global pollution problem.

⁵⁷⁷ See Part VI.E, supra.

⁵⁷⁸ See supra notes 234-38 and accompanying text.