Standing and Climate Change: Can Anyone Complain About the Weather?

David R. Hodas
STANDING AND CLIMATE CHANGE: CAN ANYONE COMPLAIN ABOUT THE WEATHER?

DAVID R. HODAS*

TABLE OF CONTENTS

I. Introduction ................................................................................... 451
II. The Spectrum of Citizen Standing.............................................. 455
III. Standing As a Constitutional Doctrine: Emergence and Decline ................................................................. 458
A. Judicial Expansion of Standing ............................................. 459
B. Judicial Constriction of Standing......................................... 461
IV. Revival of Citizen Standing: Standing and Democracy ........ 470
V. Climate Change: Lower Courts Struggle With Standing ...... 473
VI. Standing’s Majoritarian Vitality Returns................................. 478
VII. Conclusion...................................................................................... 486

I. INTRODUCTION

Air pollution can be a local, regional, or international phenomenon, but when can someone have standing in court to complain about emissions that change the world’s climate? The question of standing in a climate change context focuses on one of the central conceptual disputes within standing jurisprudence, namely what should be the role of courts in reviewing action or inaction by administrative agencies when the harm complained of is widely, if not universally, shared. Since everyone breathes and lives in the earth’s climate, who can claim particular enough injury to seek redress in court when either the government fails to fulfill its international regulatory obligations mandated by treaty or statutes implementing that treaty, or when members of the regulated community fail to comply with the law?

In the context of climate change from greenhouse gas emissions, the world is presently in the throes of drafting a legal regime to

* B.A., cum laude Williams College (1973); J.D., cum laude Boston University School of Law (1976); L.L.M., in Environmental Law (Feldshuh Fellow) Pace University School of Law (1989). Currently an Associate Professor at Widener University School of Law.

I thank Judy Oken Hodas, Nathan Oken Hodas, and Samuel Hodas for their valuable comments on earlier drafts of this article; all mistakes remain mine. Please send comments to: David R. Hodas@law.widener.edu.

451
stabilize "greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."1 Because of the scientific and economic uncertainty associated with climate change issues, achieving international consensus on legal responses is an ongoing challenge.2 The United Nations Framework Convention on Climate Change has been adopted, and entered into force, but mandates no specific greenhouse gas emissions reductions. The Kyoto Protocol, negotiated to implement the Framework Convention, attempts to establish national emission caps to begin the process of reducing emissions. Many states, including the U.S., have not yet ratified the Kyoto Protocol, and it is not yet in force as law, but intensive international negotiations are underway to resolve outstanding disputes.3 Nevertheless, it, or something like it, will eventually go into effect,4 along with some schedule of greenhouse gases emission caps, as a legal requirement, and with some type of emission trading market mechanism5 as a central measure to achieve cost-effective6 implementation.7

1. UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT: FRAMEWORK CONVENTION ON CLIMATE CHANGE, 31 I.L.M. 849, 854 (1992). Although teasing out the natural from the human caused changes in our climate is exceedingly difficult, the current international scientific consensus is that “the balance of evidence suggests that there is a discernible human influence [from greenhouse gas emissions] on global climate.” INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, 1995: THE SCIENCE OF CLIMATE CHANGE (J.T. Houghton et al. eds., 1995), 3-5. The evidence of increased atmospheric CO2 is well established, and the basic physics of the greenhouse effect is well understood. See id. Evidence of increasing global temperature is now appearing, as are some predicted effects — such as shrinking glaciers and increased storm intensity. See id. What is unknown is how fast the changes will occur, how drastic the changes will be, how the changes will be regionally distributed and manifested, and whether the changes will be reversible within the context of human history. See id.

2. See e.g., ENVIRONMENT, ENERGY, AND RESOURCE LAW: 1999 THE YEAR IN REVIEW (Marla E. Mansfield et al. eds., Section of Environment, Energy, and Resources, A.B.A., 1999) for an excellent summary of the status of the ongoing discussions. Many of the different conceptual issues in instrument design are reviewed in David Driesen, Choosing Environmental Instruments in a Transnational Context, 27 ECOLOGY L. Q. 1 (2000).

3. The next Conference of the Parties under the Framework Convention is scheduled for November 2000 at the Hague. The announced goal for CoP6 is to finalize negotiations on outstanding issues for blocking acceptance of the Kyoto Protocol, to begin implementation of the Kyoto Protocol, and the negotiate a second budget period to begin after 2012 that will require emission reductions beyond those mandated in the Kyoto Protocol. See Jan Pronk, Address to Pew Center For Climate Change on Innovative Policy Solutions to Global Climate Change (April 25, 2000), and John Prescott, Address to Pew Center For Climate Change on Innovative Policy Solutions to Global Climate Change (April 26, 2000).


5. It is scientifically irrelevant where in the world a pound of CO2 is emitted from since each molecule remains in the atmosphere for about 100 years and contributes to the global
But any emission trading arrangement will be useful only if the underlying commodity (the emission credit) is verifiable, durable, and enforceable.\textsuperscript{8} Given the range of implementation policy choices, from taxes to emission caps to trading, the range of carbon offset projects and the huge amounts of money at stake, the incentives to mismanage, cut corners, or to engage in outright fraud will be enormous. Thus, the public will have a significant interest in assuring that the government chooses policies and rules that advance implementation\textsuperscript{9} and only approves emission credit projects that are legitimate, verifiable, and enforceable. International and national transparency, and public participation in the government approval process, will be essential, as will judicial review of government decisions under the Administrative Procedure Act (APA),\textsuperscript{10} National Environmental Policy Act (NEPA)\textsuperscript{11} or other statutes implementing U.S. climate change obligations. After projects have been approved, project monitoring and enforcement also will be critical. Inevitably the government will have insufficient resources to monitor and enforce the enormous variety, quantity, and diversity of emission

increase of the gas’s concentration. Thus, a reduction anywhere in the world is as equally valuable as any reduction achieved anywhere else in the world. From an economic efficiency perspective, an emission trading scheme makes great sense.

6. The practicality of worldwide emission trading is currently being tested in the private sphere, by BP Amoco, and Shell, who have adopted firm-wide caps for carbon dioxide emissions allocated to each operating facility. See, e.g., Robert Kleigerb, Shell Includes Kyoto Mechanisms in Action on Climate Change, JOINT IMPLEMENTATION Q., Apr. 2000, at 4.

7. See JAE EDMONDS ET AL., INTERNATIONAL EMISSIONS TRADING & GLOBAL CLIMATE CHANGE (Dec. 1999), ANNIE PETSONK, ET AL., MARKET MECHANISMS & GLOBAL CLIMATE CHANGE (Oct. 1998), and JOINT IMPLEMENTATION Q. (An on-line “Magazine on the Kyoto Mechanisms” designed to exchange the latest information on AJ and the Kyoto Mechanism.” Current and back issues of this magazine may be downloaded from the Joint Implementation Network website at <http://www.northsea.nl/jiq/>); and GLOBAL GREENHOUSE EMISSIONS TRADER (This “quarterly newsletter dedicated to greenhouse gas emissions trading” is produced by the Greenhouse Gas Emissions Trading Project of the United Nations Conference on Trade and Development).

8. So, for a nation to claim an emission credit for, say, planting trees that sequester carbon in their roots, trunk and branches, there must be some means to verify that the trees have been planted, that they will grow unimpeded by forest fire or poaching for firewood, and that they produce a net increase of growing trees — i.e., other trees have not been cut down because these are growing. See RICHARD OTTINGER, ET AL., ENVIRONMENTAL COSTS OF ELECTRICITY 127-196 (1990).

9. For instance, decisions concerning automobile fuel economy standards, such as what vehicles are included in the standards and what those standards will be, can have an important role in the aggregate in responding to climate change. See, e.g., City of Los Angeles v. National Highway Safety Admin., 912 F. 2d 478 (D.C. Cir. 1990, overruled by Florida Audubon Soc’y v. Bentsen, 94 F. 3d 658 (D.C. Cir. 1996).


offset credit projects. Thus, as with all other environmental laws, some sort of citizen suit enforcement will be necessary.12

As with other areas of Congressionally authorized citizen participation, judicial involvement is predicated on the citizen participant having standing under the Constitution. To maintain an action in federal court a plaintiff must have a sufficient interest in the litigation to satisfy the Constitution’s Article III case or controversy requirement. This standing requirement is jurisdictional and must be satisfied at all levels of federal litigation.13 The basic elements of standing under Article III are well established:

[T]o satisfy Article III’s standing requirements, a plaintiff must show (1) it 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 fairlytraceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.14

When the action is brought by an association on behalf of a member or members, the association will have standing “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.”15

This article will attempt to answer whether, under Supreme Court jurisprudence, a citizen can have standing to challenge a government rule on climate change grounds or challenge a government order approving an emission credit project approval or to enforce project requirements. The answer to this question depends on how the recent Supreme Court standing jurisprudence is understood to define the meaning of “injury in fact,” causation and redressability. Must the plaintiff be directly harmed by the pollutant

13. See Laidlaw, 120 S. Ct. at 704 (noting “we have an obligation to assure ourselves that [petitioner] had Article III standing at the outset of the litigation”).
15. Id. (citing Hunt v. Washington State Apple Adver. Comm’n, 432 U.S. 333, 343 (1977)).
itself, as is the case in the classic nuisance and pollution cases? Or, may the plaintiff complain about the impact of climate change that will be widespread and suffered by all persons where the threatened impact is only a statistical artifact rather than a particular event or effect that is harmful to the plaintiff? Thus, the climate change standing problem goes to the central question of what is injury, how particularized it must be, and is standing to be essentially a constitutionalization of the special injury rule in public nuisance?

II. THE SPECTRUM OF CITIZEN STANDING

Conceptually, climate change from greenhouse gases is but one data point along the analytical spectrum of all types of air pollution. Air pollution from a single polluter emitting noxious fumes that harm neighbors has long been regulated by common law and more recently by statute. Those victims have always had standing to complain since they are the objects of action or inaction that causes them injury. Air pollution can also be the result of many diffused emitters, that produce acute local or regional problems such as smog/urban air pollution or more chronic regional effects of many diffuse emitters, such as acid precipitation from coal-fired power plants, which harm forests, human lungs, and buildings many hundreds of miles downwind. In these last two cases, as with nuisances, victims can have standing to seek judicial redress under the Clean Air Act. However, air pollution can also take the form of long-term climatic effects from increased atmospheric concentrations of pollutants over time, such as CFC emissions that harm the stratosphere ozone layer, or the cumulative effects from the increased concentrations of greenhouse gases, such as carbon dioxide


17. See Lujan v. Defenders of Wildlife, 504 U.S. 555, 561-62 (1992) (When a plaintiff is the object of an action or inaction, “there is ordinarily little question that the action or inaction has caused [plaintiff] injury, and that a judgment preventing or requiring the action will redress it.”).

18. See, e.g., 42 U.S.C. §108(a) (repealed 1994), under which regional pollutants such as ozone, particulates, carbon monoxide, and nitrogen dioxide are regulated.


(CO₂), in the atmosphere. Although the cumulative increases in atmospheric concentrations of greenhouse gas emissions are well documented, it is difficult, if not impossible, to attribute any particular weather event to be the direct result of those increased concentrations, even though statistically, scientists may be able to see evidence of broad human influence within the climate system. Although the effects of climate change may be more devastating than nuisance-based air pollution, with climate change everyone experiences weather changes, rather than the nuisance which has identifiable, particular victims.

Justice Scalia, the most forceful advocate for severely limiting standing so that courts are available only to protect minorities from particularized harm, suggests that when "allegedly wrongful governmental action . . . affects 'all who breathe,'” no one has standing to seek redress in court. Justice Scalia’s philosophy is directed most pointedly at "the judiciary's long love affair with environmental litigation," best exemplified by Judge Skelly Wright’s opinion in Calvert Cliffs: "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.” To Justice Scalia, "[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 . . . ." As we will see, this philosophy has been central to Justice Scalia’s standing opinions in recent years, all of which aim to reverse, or at least severely limit the Court’s standing jurisprudence which emerged in 1970, and for our purposes is best understood by the Court’s rational in Students Challenging Regulatory Agency Procedures (SCRAP): "[t]o 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.”

23. Id. at 884.
25. Scalia, supra note 22, at 897 (noting that Sunday blue laws first were widely unenforced before they were repealed by legislatures).
Scalia’s concerns are better resolved by existing doctrines such as nonreviewability of prosecutorial discretion and separation of powers jurisprudence, limiting one branch of government’s ability to aggrandize power to itself or encroach on the power of another branch, which is what the Court has done in its most recent pronouncements on standing, in which it rejects the narrow philosophy of Justice Scalia and returns to the modern standing doctrine it announced in 1970.

In law, this spectrum of the local to global character of air pollution manifests itself in various ways. For instance, the more local the phenomenon, the more readily the problem and victims are identifiable, and the sooner law develops a response. The tort response of public and private nuisance exemplifies this. As air pollution expanded along the spectrum to more regional issues, such as urban smog and other interstate problems, the tort-based liability response appropriate to localized air pollution was no longer adequate. In response, the Clean Air Act of 1970 eventually emerged, with its subsequent amendments, as a federal attempt, with state cooperation, to regulate regional air pollution.

The global end of this spectrum represents an altogether different problem. Here, increased concentration of gases emitted worldwide affect changes in global climate. Unlike local or regional air pollution, where the emissions impose noxious consequences on downwind victims, the CFCs and greenhouse gases are either inert, useful or harmless when emitted. It is only their slow accumulation in the atmosphere which changes the climate broadly. CFCs, gases purely human in origin, are now being eliminated from production as a result of a global international agreement. In the case of CFCs, the danger of destruction of the stratospheric ozone layer was great and the consequences to human health and the environment enormous, and the relatively few major industrial entities that manufactured CFCs had the technical capability to invent,

32. “[T]hose gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation” such as CO₂, methane, and nitrous oxide. UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT: FRAMEWORK CONVENTION ON CLIMATE CHANGE, 31 I.L.M. 849 (1992), Art. 1, ¶ 5.
manufacture and market alternative, less destructive, products, so the international legal system was able to respond relatively quickly and elegantly to the problem.\textsuperscript{33}

However, climate change from increased concentration of greenhouse gases is at the extreme global end of our conceptual spectrum. First, CO\textsubscript{2} is not a human invented gas, but is an essential by-product of respiration — it is essential to living, and is the necessary feedstock of photosynthesis, from which plants convert sunlight to food for the earth, and release oxygen for us to breathe. Moreover, each person’s CO\textsubscript{2} emission from burning fossil fuels and other human activities insignificantly increases atmospheric concentrations, which slowly change the climate in hard to define ways; because each molecule of carbon dioxide can stay in the atmosphere for a century or more, the accumulative effects are both large and long-lived. Although the location of an air pollution issue along this spectrum affects the nature of the regulatory instruments chosen and legal regime necessary to support those instruments, it does not change the basic analytical concept that all human-caused air pollution is regulated by legal systems that set goals, standards, expectations, and require implementation, monitoring and compliance mechanisms. The same legal tool chest is used each time, but the tools are selected as the job requires. In the case of climate change, any legal regime designed to regulate CO\textsubscript{2} emissions must be comprehensive, international and affect individual conduct. Standing should not depend on the policy choice of which regulatory and legal tools fit which type of air pollution best.

III. STANDING AS A CONSTITUTIONAL DOCTRINE: EMERGENCE AND DECLINE

Standing, as a constitutional doctrine, is relatively new, not entering into our jurisprudence until the first half of the twentieth century, as “a creation of justices allied with the progressive movement or the New Deal — most notably Justices Brandeis and Frankfurter, defenders of the regulatory–state who sought to develop devices immunizing government from judicial review.”\textsuperscript{34} Before this effort to protect New Deal legislation from Lochnerian attack, the standing doctrine was construed narrowly to limit claims against the

\textsuperscript{33} See generally RICHARD ELLIOT BENEDICK, OZONE DIPLOMACY: NEW DIRECTIONS IN SAFEGUARDING THE PLANET (1991) (an excellent and thorough account of this history by the chief U.S. ozone negotiator from 1985 to 1990).

\textsuperscript{34} GEOFFREY R. STONE ET AL., CONSTITUTIONAL LAW 100 (3d ed. 1996).
government to those persons who could show some common law interest that was at stake. Under this approach, standing was found for persons seeking to protect private property from government interference, but not for those seeking to invoke the power of government.35 However, with the rise of the administrative state and expanding concepts of public participation in decision-making, standing evolved to encompass judicial review of public welfare statutes by beneficiaries the laws were intended to protect. Increasingly, the narrow common law or legal interest test for standing was challenged in the 1960’s as courts began to interpret statutes designed to provide public benefits and protection to include the right to allow persons intended to be protected by the statute to bring suit.36 Thus, citizens concerned with destruction of the environment in the Hudson River Valley were held to have standing under the Federal Power Act to challenge the approval of a pump storage plant.37 This evolution led to the abandonment of the narrow standing concept in 1970, when the Supreme Court ushered in the modern doctrine of standing, by broadening standing as a matter of statutory interpretation under the Administrative Procedure Act38 to require the plaintiff only to show “injury in fact,” which could consist of economic, aesthetic, environmental or other harm.39

A. Judicial Expansion of Standing

This liberalization of the “injury in fact” test was confirmed and constitutionalized two years later in *Sierra Club v. Morton*,40 where the Court held that “aesthetic, conservational or recreational harm” could be a constitutionally sufficient injury to support standing to challenge government approval of a permit for a ski development.41 Over the next two decades, this expansive concept of standing, particularly in environmental cases, became well established. For

35. See id. at 100-01.
36. This evolution was paralleled by a similar expansion of the definition of protected interest under the 14th Amendment due process clause for purposes of procedural due process. See, e.g., Goldberg v. Kelly, 397 U.S. 254 (1970); Charles A. Reich, *The New Property*, 73 YALE L.J. 733 (1964).
40. 405 U.S. 727 (1972).
41. Id. at 734-35 (but finding that to have standing, the organization must meet the requirements of associative standing or standing in its own right by showing that “it or its members” used the land in dispute).
instance, a year later, the Court held, for purposes of a motion to dismiss, that a group of law students alleged sufficient injury for standing purposes to challenge an Interstate Commerce Commission railroad freight tariff to meet the Article III Constitutional minima by showing an attenuated line of causation to the eventual injury of which the [students] complained — a general rate increase would allegedly cause increased use of non-recyclable commodities as compared to recyclable goods, thus resulting in the need to use more natural resources to produce such goods, some of which resources might be taken from the Washington area, and resulting in more refuse that might be discarded in national parks in the Washington area.42

Several years later, a group of persons opposed to nuclear power plants proposed to be built near them, filed suit to challenge the validity of the Price-Anderson Act, which set a liability cap for a nuclear plant accident at $560 million.43 The group argued that without the financial subsidy of the liability limitation the utility would not be able to afford to construct the plant, and therefore, the aesthetic and environmental injuries the plant, if constructed and operated, would cause was directly attributable to the act, giving plaintiff’s standing. The Court agreed that the plaintiffs had standing to challenge the act: “[c]ertainly the environmental and aesthetic consequences of the thermal pollution of the two lakes in the vicinity of the disputed power plants is the type of harmful effect which has been deemed adequate in prior cases to satisfy the ‘injury in fact’ standard.”44 Standing existed because there was injury in fact, fairly traceable to the financial subsidy of the Price-Anderson Act, which could be redressible by a ruling that the act was invalid.

Within the context of environmental issues, the modern approach to standing remained unremarkable within the Supreme Court for the next decade. However, with the advent of the policies of

42. U.S. v. SCRAP, 412 U.S. 669, 688 (1973) (finding, in other words, that the increased freight rates might result in less recycling of cans and bottles, which would result in increased litter in Washington’s Rock Creek Park, which would impair the plaintiff’s aesthetic interest in using the park). This opinion has been characterized by Justice Scalia as at the outer limits of standing jurisprudence. See Lujan v. National Wildlife Federation, 497 U.S. 871, 889 (1990).
44. Id. at 73-74.
President Reagan during the 1980's to reduce governmental efforts to protect the environment, a new breed of environmental litigation emerged — the citizen, as private attorney general, suit.\textsuperscript{45} The explosion and success of these suits, together with litigation by citizens challenging the administration’s efforts to reduce environmental regulation and protection, resulted in jurisdictional questions, such as standing, becoming crucial tactical shields to defend these actions. For instance, in 1987, a polluter was finally able to fend off a Clean Water Act citizen suit by making a technical jurisdictional argument about the temporal nature of the allegations in \textit{Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Foundation, Inc.}\textsuperscript{46} Two years later, the Court held that the 60 day notice requirement common to all environmental suit statutes was a jurisdictional prerequisite to sit in a federal court.\textsuperscript{47}

Although \textit{Gwaltney} turned on a statutory interpretation question, it reflected a much more narrow approach to environmental litigation, particularly in its characterization of the statutory requirements as subject matter jurisdictional, and therefore, noncurable. This constriction soon became apparent in standing also.

\textbf{B. Judicial Constriction of Standing}


The first case to suggest a narrowing of the standing doctrine was \textit{Lujan v. National Wildlife Federation}.\textsuperscript{49} In that case, the NWF sought to challenge the criteria the DOI was using to reclassify the types of uses to be permitted on about two million acres of federal land in the west, these new use classifications would allegedly be used by the agency in its land withdrawal review program, under which the Bureau of Land Management (BLM) would determine which land would be removed from protection (withdrawal status).\textsuperscript{50} BLM argued that each of the thousands of parcel redesignations must be challenged separately and discretely. At the time of the suit, the Agency had changed the land use designation status for several

\textsuperscript{45} See Hodas, \textit{supra} note 12, at 1618-20.
\textsuperscript{46} 484 U.S. 49 (1987).
\textsuperscript{49} See \textit{id.} at 882-89.
\textsuperscript{50} See \textit{id.} at 875-79.
small parcels to permit mining and other surface disturbing activities. The DOI, seeking to avoid judicial scrutiny of its program, sought to dismiss the case on the grounds that the plaintiff did not have standing.\textsuperscript{51} The plaintiff’s standing claim was based on the affidavits of several NWF members, who said they hiked “in the vicinity” of the parcels, and their aesthetic and environmental interests would be harmed by the redesignations allowing mining and other surface disturbing activities.\textsuperscript{52} The “adverse effect” or “aggrievement” alleged in the affidavits, diminished recreational use and aesthetic enjoyment from the termination of the withdrawal classification, were clearly "among the sorts of interests those statutes [FLPMA and NEPA] were specifically designed to protect."\textsuperscript{53} To Justice Scalia, writing for the majority, the sole issue was whether "the facts alleged in the affidavits showed that those interests of [the affiants] were actually affected."\textsuperscript{54} The Supreme Court held that, for purposes of summary judgment, hiking “in the vicinity” was a statutorily insufficient allegation of aesthetic or environmental interest in the land to support a claim of harm caused by agency action.\textsuperscript{55} In so ruling, the Court also held that any ambiguity in the affidavits as to what "in the vicinity" meant would not be read in favor of the affiants (the non-moving party).\textsuperscript{56}

Contrary to its holding twenty one years earlier that an "in the vicinity” allegation was sufficient to establish "injury in fact,"\textsuperscript{57} the Court dismissed the action for lack of standing, and refused to allow a remand for more detailed affidavits to be developed.\textsuperscript{58} The Court of Appeals had said that the trial court, on the government’s motion for summary judgment, "was obliged to resolve any factual ambiguity in favor of NWF, and would have had to assume, for the purposes of summary judgment, that [the affiant] used the 4500 affected acres."\textsuperscript{59} Justice Scalia disagreed: under Fed. R. Civ. P. 56(e), the plaintiff’s obligation to show that its members have been or are threatened to be "adversely affected" by the government’s action "is

\textsuperscript{51} See id. at 880.
\textsuperscript{52} See id.
\textsuperscript{53} Id. at 886 (emphasis in original).
\textsuperscript{54} Id.
\textsuperscript{55} See id. at 888-89.
\textsuperscript{56} Id.
\textsuperscript{57} Duke Power Co. v. Carolina Envtl. Study Group, 438 U.S. 59, 73-74 (1978) (holding that standing existed for plaintiffs who live near a power plant that might cause environmental and aesthetic harm to two lakes "in the vicinity" of the proposed power plants).
\textsuperscript{58} See NWF, 497 US at 898-900.
\textsuperscript{59} NWF v. Burford, 878 F. 2d 422, 431 (D.C. Cir. 1989).
assuredly not satisfied by averments which state only that one of [the] respondent’s members uses unspecified portions of an immense tract of territory, on some portions of which mining activity has occurred or probably will occur by virtue of the government action.” 60 This narrow approach to summary judgment and injury allegations was consistent with Justice Scalia’s similarly narrow definition of agency action. Although NWF sought review of BLM’s land withdrawal review program, which “BLM, over the past decade, has attempted to develop and implement,” 61 Justice Scalia saw no identifiable “agency action” as a program, only “1250 or so individual classification terminations and withdrawal revocations,” 62 each of which must be individually challenged. According to Justice Scalia, even if, as NWF alleged, “violation of the law is rampant within this program . . . [NWF] cannot seek wholesale improvement of this program by court decree, rather than in the offices of the Department or the halls of Congress, where programmatic improvements are normally made.” 63 The dissent, in contrast, did not see the litigation as a broad, unfocused policy dispute better left to Congress, but as a classic challenge to agency action alleged to be arbitrary, capricious or otherwise not in accordance with law, for which judicial review and relief is normally appropriate. 64

2. Lujan v. Defenders of Wildlife 65

Standing was further constricted by Justice Scalia two years later in Lujan v. Defenders of Wildlife. 66 When NWF was announced, it was unclear whether it represented a change in approach towards standing that was more narrow in scope, and restrictive in its application, or whether it was merely an anomalous litigation result driven by the particulars of the affidavits. In other words, if this was a decision meant to rearticulate standards for summary judgment, 67 it was trivial with respect to the standing doctrine (i.e., it was simply a drafting lesson for lawyers crafting affidavits). If it was more than a case concerned with the seemingly minor technicalities of an affidavit, then what did it teach with respect to standing? Did NWF

60. 497 U.S. at 889.
61. Id. at 914 (Blackmun, J., dissenting).
62. Id. at 890 (quoting the District Court opinion, 699 F. Supp. 327, 332).
63. Id. at 891 (emphasis in original).
64. See id. at 913-14.
66. Id.
67. See NWF at 902-03, 908 (Blackmun, J., dissenting).
reflect Justice Scalia’s long held academic views that the doctrine of standing should limit citizen’s ability to influence governmental policy through the device of litigation.\textsuperscript{68} The Court appeared to answer the question in \textit{Defenders of Wildlife}, when it ruled that an environmental group lacked standing to challenge a Department of Interior rule interpreting § 7 of the Endangered Species Act to make it inapplicable to extraterritorial impacts of federal action.\textsuperscript{69}

The court below had found that Defenders of Wildlife had standing, and ruled in their favor on the merits.\textsuperscript{70} A divided Supreme Court, however, found no standing, and declined to consider the case on the merits.\textsuperscript{71} The case involved, for standing purposes, the allegation that funds provided by the United States supported dam projects in Sri Lanka and Egypt that would threaten the habitat and extinction of endangered and threatened species.\textsuperscript{72} The affidavits of two Defenders of Wildlife members were offered to support the association’s standing. Joyce Kelly stated that she traveled to Egypt in 1986 and ‘observed the traditional habitat of the endangered Nile crocodile there and intend[s] to do so again, and hope[s] to observe the crocodile directly,’ and that she will suffer harm in fact as the result of [the] American role in overseeing the rehabilitation of the Aswan High Dam . . . .\textsuperscript{73}

Amy Skilbred “averred that she traveled to Sri Lanka in 1981 and ‘observed the habitat’ of ‘endangered species such as the Asian elephant and the leopard’ at what is now the site of the Mahaweli project funded by the Agency for International Development . . . .”\textsuperscript{74} She stated that the project will harm the animal’s habitat, threaten the continual existence of the species, and will harm her because she “intend[s] to return to Sri Lanka in the future and hope[s] to be more fortunate in spotting at least the endangered elephant and

\textsuperscript{69}. See 504 U.S. at 578.
\textsuperscript{70}. See \textit{id.} at 559.
\textsuperscript{71}. See \textit{id.} at 578.
\textsuperscript{72}. See \textit{id.} at 563.
\textsuperscript{73}. \textit{id.} (alteration in original).
\textsuperscript{74}. \textit{id.} (alteration in original).
leopard.” She had no current plans to return since Sri Lanka was in the midst of a civil war at the time.

With respect to the facts, the court was in agreement, but as to how these facts fit into the law of standing, the court was splintered. Justice Scalia’s opinion rejected standing on four grounds. First, the affiants intention to return to these countries “some day,” absent “any description of concrete plans . . . do not support a finding of . . . ‘actual or imminent’ injury . . . .” Second, the theories of standing proposed by Defenders were rejected by Justice Scalia as so implausible as to be unacceptable as a matter of law. Defenders had argued that standing could be established by one of three alternative theories of causation, the “ecosystem,” “animal,” and “vocational nexus” approaches. “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 . . . .” To Justice Scalia, “[t]his is beyond all reason . . . [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.”

Defenders’ ecosystem nexus theory was also rejected by Justice Scalia as a matter of law. Under this theory,

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. This approach . . . is inconsistent with our opinion in National Wildlife Federation, which held that a plaintiff claiming injury from environmental damage must use the area affected by the challenged

75. Id. (alteration in original).
76. See id. at 564.
77. Id. (quoting Whitmore v. Arkansas, 495 U.S. 149, 155 (1990)).
78. See id. at 566-67.
79. Id. at 565. (Under this theory, "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.") This theory was rejected by Justice Scalia as inconsistent with National Wildlife Federation.
80. Id. at 566. ("[A]nyone who has an interest in studying or seeing the endangered animals anywhere on the globe has standing").
81. Id. ("[A]nyone with a professional interest in [endangered] animals can sue").
82. Id.
83. Id. at 566-67.
activity and not an area roughly ‘in the vicinity of it.’
To say that the [Endangered Species] 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.84

Third, Justice Scalia found no standing because, in his view, relief from the court would not fully redress the complained of injury, because a court order invalidating the rule would not necessarily stop the projects.85 Finally, Justice Scalia denied that Congress could create and vest a “public” right in individuals to support judicial review of the executive branch’s failure to adhere to the law.86 To Justice Scalia, “the concrete injury requirement has . . . separation-of-powers significance,”87 so that 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.”88

Only Chief Justice Rehnquist, Justice White and Justice Thomas joined the plurality opinion of the Court. Justices Kennedy and Souter concurred with the seemingly “trivial” view that absent airplane tickets to return the affiants’ connection to the location was too remote to support standing.89 On the other hand, both Justice Kennedy and Souter 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.”90 They refused, however, to reach the redressability issue and rejected Justice Scalia’s constitutional bar to Congress creating new causes of action: “Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy when none existed before . . . . In exercising this power, however, Congress

84. Id. at 565-66.
85. See id. at 568-71.
86. See id. at 571-78.
87. Id. at 577.
88. Id. at 576-77.
89. See id. at 579-80 (Kennedy, J., concurring).
90. Id. at 579.
must at the very least identify the injury it seeks to vindicate and relate the injury to the class of persons entitled to bring suit.”\(^9^1\)

Justice Stevens believed that standing was established here because Congress having found endangered species to be of “‘aesthetic, ecological, educational . . . value to the Nation and its people,’” the Court has “no license to demean the importance of the interest that particular individuals may have in observing any species or its habitat.”\(^9^2\) In his view, the injury alleged here was imminent,\(^9^3\) could be redressed by a court order, and was not subject to any separation of power limitation. However, because he believed the government should prevail on the merits, he concurred in the judgment of reversal.\(^9^4\)

Justice Blackmun, with Justice O’Connor joining, vigorously dissented from the plurality’s “slash-and-burn expedition through the law of environmental standing.”\(^9^5\) In their view, standing was clearly established by the affidavits; they rejected, as a return to “code-pleading formalism,” the notion that airplane tickets would determine the outcome.\(^9^6\) They viewed the majority as creating a set of “rigid principles of geographic formalism” applicable only to environmental claims, which are now placed under “special constitutional standing disabilities.”\(^9^7\) They rejected Justice Scalia’s redressability argument because of “its invitation of executive lawlessness, ignorance of principles of collateral estoppel, unfounded assumptions about causation, and erroneous conclusions about what the record does not say,”\(^9^8\) and rejected the separation of powers analysis as a new, unjustified, inappropriate and arbitrary per se rule.\(^9^9\)

Under a scorecard analysis, six justices believed that an airplane ticket was necessary. Four justices (only three of whom remain on the Court) rejected the various nexus theories as a matter of law. Five justices accepted the nexus approach as legally valid. Four justices (only three of whom remain on the Court) agreed with

---

\(^9^1\) Id. at 580.
\(^9^2\) Id. at 582 (Stevens, J., concurring).
\(^9^3\) See id. at 583 (Justice Stevens would measure “‘imminence’ . . . by the timing and likelihood of the threatened [injury] . . . rather than — as the Court seems to suggest . . . — by the time that might elapse between the present and the time when the individuals would visit the area if no such injury should occur”).
\(^9^4\) See id. at 585.
\(^9^5\) Id. at 606 (Blackmun, J., dissenting).
\(^9^6\) See id. at 593.
\(^9^7\) Id. at 595.
\(^9^8\) Id. at 601.
\(^9^9\) See id. at 601-06.
Justice Scalia’s redressability theories or separation-of-powers ideas. The question we face is this: how powerful is Justice Scalia’s plurality opinion? Is it a second data point on a trend line beginning with NWF, leading inexorably to the narrow standing theory proposed by Justice Scalia in his *Suffolk Law Review* article? If so, in the climate change context, standing will be nearly impossible to achieve. Although, *Defenders of Wildlife* has been harshly criticized in the academic community, it was read by many lower courts as a strong signal that standing was to be more rigorously evaluated in environmental litigation. However, because *Defenders of Wildlife* was only a plurality opinion, the law of standing remained unsettled.

3. Steel Co. v. Citizens for a Better Environment

This battle over the environmental standing paradigm was not waged again until 1998 in *Steel Co. v. Citizens for a Better Environment*. In this case, citizens were seeking civil penalties from the defendant for failing to file its Toxic Release Inventory (TRI) under the Emergency Planning and Community-Right-To-Know Act (EPCRA). By the time the complaint was filed, the defendant had filed its TRI with the government. The defendant sought to dismiss the case on two grounds. First, that the statute did not permit citizen suits for wholly past violations, and second, that even if the statute authorized such suits, the plaintiff did not have

---


104. *Id.*


In a lengthy decision, devoted mostly to a debate among the justices as to whether the court should address the statutory issue before the constitutional one or vice versa, the court dismissed, with brief analysis, for lack of standing. The court found that the relief sought, an award of civil penalties for past violations, would not redress plaintiff's alleged injury because the civil penalties would be paid to the U.S. Treasury, and not to or on behalf of plaintiffs. Any deterrent effect the civil penalties might engender were, to the majority, too speculative to render them redress for constitutional purposes. This conclusion by Justice Scalia, although entirely consistent with his philosophy espoused in his *Suffolk Law Review* article, was presented without analysis or support despite vigorous dissent.

To Scalia, in seeking civil penalties payable to the U.S. Treasury, the citizens were not seeking to remedy their own injury but sought “vindication of the rule of law - the ‘undifferentiated public interest’ in faithful execution of EPCRA. This does not suffice . . . although a suitor may derive great comfort and joy from the fact that the United States Treasury is not cheated, that a wrongdoer gets his just desserts, or that the Nation’s laws are faithfully enforced, that psychic satisfaction is not an acceptable Article III remedy . . . .” Nor, to Justice Scalia, does the deterrent value of penalties provide redress — “such a principle would make the redressability requirement vanish.”

But to Justice Stevens, this rigid definition of remedy was wrongheaded: “the Court fails to specify why payment to respondent — even if only a peppercorn — would redress respondent’s injuries, while payment to the Treasury does not.” To Justice Stevens, civil penalties are conceptually identical to punitive damages — which provide redress for the individual and states; nor is it any different, according to Justice Stevens, from the deterrence value of private criminal prosecutions, which were routine in Colonial America and the early days of the United States. There is redress, even if plaintiff does not receive the

107. See id.
108. See id. at 109-10.
109. See id. at 106.
110. See id. at 108-09.
111. See id.
112. Id. at 106-07 (quoting Defenders of Wildlife, 504 U.S. at 577).
113. Id. at 107.
114. Id at 127 (Stevens, J., concurring).
115. See id. at 127-28.
penalties or money because “the wrongdoer will be less likely to repeat the injurious conduct that prompted the litigation. The lessening of the risk of future harm is a concrete benefit.”116

If one were to plot these cases (NWF, Defenders of Wildlife and Steel Co.) on a graph, the data would reveal an apparent abandonment of the modern law of standing.117 In NWF, the Court required explicit geographic contact, rejecting “in the vicinity,” which had been adequate in Duke Power. In Defenders of Wildlife, the plurality added a severe concreteness of injury test, rejected logical, scientifically justifiable, and pragmatic nexus theories of causal connection as legally inadequate (an unspoken rejection of SCRAP), questioned the concept of redress where anything less than a complete remedy is possible, and began to limit Congress’ ability to define injury and authorize citizen suits to enforce federal laws. Finally, in Steel Co., the Court appeared to repudiate the deterrent effect of civil penalties as citizen redress, thereby effectively limiting citizen suits only to cases where injunctive relief is appropriate. Thus, with the Steel Co. opinion, the court appears to have redefined, in terms most hostile to environmental claimants, all of the constitutionally “irreducible minimum”118 prerequisites of standing: injury in fact, causation and redressability. It would appear that in these three opinions Justice Scalia has ended the federal courts’ love affair with environmental litigation, to which he so vehemently objected in his Suffolk article.119

IV. REVIVAL OF CITIZEN STANDING: STANDING AND DEMOCRACY

Yet, what appeared to be Justice Scalia’s triumph in Steel Co. was short-lived. A non-environmental case decided three months after Steel Co. undermined Justice Scalia’s central standing theme, that broadly held grievances should be brought to Congress, not the Courts.120 At first glance, Akins, which ruled that voters had standing to challenge a Federal Election Commission final decision that a lobbying group (AIPAC) was not a “political committee” within the definition of the statute, and was not required to disclose

116. Id. at 128, n. 26.
117. See Defenders of Wildlife, 504 U.S. at 560 (Justice Scalia even narrows the definition of “injury in fact” to a pre-Association of Data Processing Serv. Org. concept of “a legally-protected interest”).
119. See Scalia, supra note 22, at 884.
its donors, contributions, or expenditures, seems unrelated to the environmental standing cases. However, *Akins*, which turned on the Court’s conceptualization of what is a generalized grievance (for which standing is not available under the Constitution) and what is a concrete and particular harm broadly shared, goes to the heart of the injury prong of standing in the climate change context.

In *Akins*, Justice Breyer held that voters’ inability to obtain information that Congress, through the Federal Election Campaign Act of 1971,\(^{121}\) required to be disclosed was a constitutionally “genuine ‘injury in fact.’”\(^{122}\) Here the “concrete and particular” injury suffered was the deprivation of the Congressionally created right that voters receive designated “information [which] would help them . . . to evaluate candidates for public office . . . .”\(^{123}\) To the Court, this harm was consistent with the finding of harm in previous informational cases, and so the decision was unremarkable,\(^{124}\) and distinguishable from taxpayer standing cases, where a plaintiff rarely has standing to sue.\(^{125}\) Unlike *Akins*, the taxpayer in *United States v. Richardson*\(^{126}\) who sought disclosure of CIA expenditures based upon the Accounts Clause of the Constitution\(^{127}\) so that he could “properly fulfill his obligations as a member of the electorate in voting”\(^{128}\) was not injured in fact. Thus, the central question in *Akins* was why standing is sometimes allowed but sometimes denied when “the political process, rather than the judicial process, may provide the more appropriate remedy for a widely shared grievance.”\(^{129}\) Justice Breyer explained that the generalized grievance bar to standing involved a two part test — the harm must not only be widely shared but must also be of “an abstract and indefinite nature — for example, harm to the ‘common concern for obedience to law.’”\(^{130}\) It is the

---

122. 524 U.S. at 21.
123. *Id*.
124. See *Public Citizen v. Dep’t. of Justice*, 491 U.S. 440, 449 (1989) (noting that deprivation of information required to be disclosed by federal statute “constitutes a sufficiently distinct injury to provide standing to sue”).
126. 18 U.S. 166 (1974).
127. See 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”).
129. *Akins*, 524 U.S. at 23.
130. *Id*.
abstractness of the injury that deprives the standing, not the wide dispersal of the harm.131

Where a widely shared harm is nevertheless concrete, standing can exist constitutionally. The wide sharing of injury is analytically distinct from concreteness:

[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.132

Thus, where Congress enacts a law designed to protect or enhance rights of citizens, and authorizes persons protected to seek judicial redress when the protection is denied, and thus the harm inflicted, the citizen has standing to seek such redress in federal court, even though every other citizen is similarly adversely affected. On the other hand, general obligations placed on Congress by the Constitution such as the Accounts Clause, do not define concrete harm to citizens when Congress allegedly fails to meet its affirmative obligation. In those cases, as with other political issues, the remedy is left to the political process, not the Courts.

Not surprisingly, Justice Scalia vigorously dissented. First, he objected to the idea that Congress, by statute, could create an injury-in-fact while a constitutional obligation on Congress does not.133 He also objected to the distinction between taxpayers (no standing) and

---

131. See id. 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.”) (internal citations omitted).
132. Id. at 24 - 25 (internal citations omitted).
133. See Akins, 521 U.S. at 33 (Scalia, J., dissenting).
voters (standing) as “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.’”\(^\text{134}\) This led to his most serious concern, that the Court has abandoned the line between generalized grievances (no standing) and particularized ones (standing). To Justice Scalia, it matters not whether generalized grievances are concrete or abstract, all “undifferentiated” grievances “common to all members of the public . . . must be pursued by political, rather than judicial, means.”\(^\text{135}\)

\textit{Akins} permitted Congress to authorize a citizen to vindicate an informational right of concern to all voters, and inevitably rejects Justice Scalia’s admonition in \textit{Defenders of Wildlife}\(^\text{136}\) 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 . . . .”\(^\text{137}\)

Thus, as of June 1998, the Court was placing a rigorous burden on plaintiffs to articulate concrete, differentiated, non-speculative harm to establish standing, but voters need not. If in environmental cases undifferentiated, widely shared harm would not justify standing, can there be standing to challenge governmental decisions affecting climate change or to bring citizen suits to enforce climate change obligations? As of June 1998, the line of environmental standing cases in the Supreme Court and lower courts suggested no. The lower courts’ analysis of standing on the climate change issue mirrored the debate in the Supreme Court.

\section*{V. CLIMATE CHANGE: LOWER COURTS STRUGGLE WITH STANDING}

Although the Supreme Court has not yet addressed the question of standing and climate change, the District of Columbia circuit has faced the question twice, with mixed results.\(^\text{138}\) The first case

\begin{flushleft}
\textsuperscript{134}. Id. at 33 (internal citations omitted).
\textsuperscript{135}. Id. at 35.
\textsuperscript{137}. Id. at 36 (quoting \textit{Defenders of Wildlife}, 504 U.S. at 577).
\textsuperscript{138}. In another case, a NEPA challenge to funding decisions that allegedly contributed to the greenhouse effect, standing based on deprivation of information was denied. See
\end{flushleft}
involved a challenge by Los Angeles, New York, the State of California and environmental groups to a decision by the National Highway Traffic Safety Administration not to prepare an environmental impact statement (EIS) on corporate average fuel economy (CAFÉ) standards. The plaintiffs alleged 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 CAFÉ standard lower than 27.5 mpg.” This increased fuel consumption 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,” which would injure the economic and recreational interests of members of the plant environmental group that lived there. A divided court found that plaintiff had standing, although a differently divided court ruled against the plaintiffs on the merits. Judge Wald, with Justice (then Judge) Ruth Bader Ginsburg concurring, agreed that the “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,” who because of their “geographical nexus” to the location where the consequences would be felt, would be harmed by a warmer climate’s effect on coastal and agricultural resources. Because NRDC had established that its members met the “geographical nexus” requirement of injury-in-fact, standing was established even though “the effects of a change in global atmosphere would obviously be felt throughout this country, and indeed, the world.” 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. To meet the causation and redressability requirements, “NRDC had only to

Foundation on Econ. Trends v. Watkins, 794 F. Supp. 395 (D.C. Cir. 1992). In this case, however, the standing question was determined by the Circuit’s recent narrowing of “information” standing, i.e., that deprivation of information did not constitute sufficient injury for purposes of standing. See Foundation on Econ. Trends v. Lyng, 943 F.2d 79, 82-85 (D.C. Cir. 1991). The court did not address whether plaintiffs had standing based on injuries from climate change directly.

140. Id. at 483.
141. Id.
142. Id. at 494.
143. Id.
144. Id. at 495-497.
show some likelihood that a full EIS would influence [the Agency’s] decision."145

On standing, Judge D. H. Ginsburg dissented. He argued that the change in global carbon dioxide concentration from the CAFÉ decision was too small in itself to cause the projected climate change catastrophe, and “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.”146 Therefore, the CAFÉ decision was not fairly traceable to the injury. In his view, if the majority’s view on standing were followed, “the standing requirement would, as a practical matter, have been eliminated for anyone with the wit to shout ‘global warming’ in a crowded courthouse.”147 In his view, standing requires NRDC to allege (and ultimately show) that the decision would have an “identifiable “marginal impact.”148

However, because such an allegation cannot be proved under the current state of the science, this approach would, in all practical terms, bar anyone from having standing to seek review of a decision affecting climate change. For several reasons, the majority explicitly rejected Judge D. H. Ginsburg for using “the wrong test for causation in the case of a NEPA plaintiff; he has fallen into the familiar trap of confusing the standing determination with the assessment of [the] case on the merits.”149 Instead, the majority cautioned that where “the relevant harms are probabilistic 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.”150 Thus, the majority rejected Judge D. H. Ginsburg’s test that NRDC must precisely establish the causal relationship between the fuel economy standard change and the harmful effects of global warming; rather they held that “our precedents require only that it show a reasonable likelihood that if [the Agency] performed an EIS, it would arrive at a different conclusion ....”151 The NRDC clearly did this.152 Moreover, NRDC’s standing was not diminished by the small

145. Id. at 498.
146. Id. at 484.
147. Id.
148. Id.
149. Id. at 495.
150. Id. at 495 n.5.
151. Id. at 497.
152. See id. (summarizing the substantial evidence of fuel economy standards, gasoline usage, and carbon dioxide emissions over the lifetime of the 1989 model year fleet of cars).
percentage change (about 1%) in total U.S. emissions that the CAFÉ
decision would cause. To the majority, that approach, ironically,
"would permit virtually any contributory cause to the complex
calculus of environmental harm to be ignored 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."153 Similarly, just
as the correct causation test was "some likelihood"154 that an EIS
would influence the ultimate decision, so, with respect to
redressability, the test is not whether changing the CAFÉ 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."155

City of Los Angeles was decided before Defenders of Wildlife. The
D.C. Circuit returned to this question again in 1996, several years
post-Defenders of Wildlife, when, in a split decision, the Court, en banc
overruled City of Los Angeles.156 In this case, several environmental
groups challenged the failure of the Treasury Department and I.R.S.
to prepare an environmental impact statement on the effects of a tax
credit for ethyl tertiary butyl ether (ETBE), a fuel additive. The
environmental groups argued that the tax credit for ETBE would
increase corn, sugar cane and sugar beets production of the ethanol
from which ETBE was made, and this would increase agricultural
activities in regions bordering wildlife areas, which would be
adversely affected by the increased cultivation, which in turn would
harm plaintiff’s environmental and aesthetic interests in the areas,
which were specified and with which members of the environmental
groups had a geographic connection.157

A divided panel of the D.C. Circuit found that the allegations
satisfied the injury in fact nexus requirement and the causation
requirement because an EIS might result in the tax credit being
rescinded or modified. Adopting Judge D. H. Ginsburg’s views in
City of Los Angeles, the D.C. Circuit en banc overruled City of Los
Angeles and held that the relevant test is a showing that a
“particularized environmental interest of [plaintiffs] that will suffer
demonstrably increased risk, [and that the challenged agency

153. Id. at 498 (See, e.g., Committee for Auto Responsibility v. Solomon, 603 F.2d 992 (D.D.
Cir. 1979) ("an increase in noise and air pollution from an individual parking lot" was "fairly
traceable" even though it was only a minute percentage of the pollution from all parking lots in
the metropolitan area).
154. Id.
155. Id. at 499.
157. See id. at 662-63.
decision] is substantially likely to cause that demonstrable increase in risk to their particularized interest.” 158 Following Justice Scalia’s plurality opinion in *Defenders of Wildlife*, the court adopted Judge D. H. Ginsburg’s test from *City of Los Angeles* that to demonstrate injury in fact 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.” 159 In doing so, the court explicitly overruled Judge Wald’s opinion in the *City of Los Angeles* even though “a plaintiff seeking to challenge a governmental action with alleged diverse environmental impacts may have some difficulty meeting this standard.” 160 The use of “may” is a bit disingenuous for the court goes on to prohibit, for standing purposes when litigation involved broad rulemaking, the use of any assumption that “areas used and enjoyed by a prospective plaintiff will suffer all or any environmental consequences that the rule itself may cause.” 161 Nor will a showing that a plaintiff’s “particularized interest is . . . more likely to sustain injury than some other person’s interest” be sufficient to meet this standard. 162

Moreover, relying on *Richardson*, the plaintiff must show that he is not simply injured as is everyone else, lest the injury be too general for court action, and suited instead for political redress. 163 Probabilistic analysis will not meet these tests — plaintiffs can not assume that farmers, as economically rational persons, will respond to the tax credit by increasing production; rather, to establish injury for standing purposes, plaintiffs must show that the tax credit will induce specific farmers to increase production in specific amounts on specific land, causing particularized environmental degradation. 164 Following the spirit of *Defenders of Wildlife*, the court also overruled

---

158. *Id.* at 665.
159. *Id.* at 666.
160. *Id.*
161. *Id.* at 667.
162. *Id.*
163. *See id.*
164. *See id.* at 668 (“[W]hatever the possible environmental impacts of the ETBE tax credit, appellants have not provided competent evidence that corn farmers in particular areas of Minnesota or Michigan or sugar producers in particular regions of Florida will grow their crops in such a fashion as to lead to greater quantities of pesticide use and erosion than already exist so as to pose a significantly increased risk to the lands used by these appellants because of the presence of that credit. Even if the coming years witness some increased cultivation of land in the United States, appellants have not demonstrated that this increased cultivation would occur on land adjacent to the property in Minnesota or elsewhere that any appellants visit. Because appellants have not demonstrated such a geographic nexus to any asserted environmental injury, we cannot hold that they have standing to sue.”).
the City of Los Angeles causation test. Instead of a probabilistic test, the court adopted a stringent test reminiscent of common law causation:

To prove causation, a plaintiff seeking the preparation of an EIS must demonstrate that the particularized injury that the plaintiff is suffering or is likely to suffer is fairly traceable to the agency action that implicated the need for an EIS. In other words, unless there is a substantial probability that the substantive agency action that disregarded a procedural requirement created a demonstrable risk, or caused a demonstrable increase in an existing risk, of injury to the particularized interests of the plaintiff, the plaintiff lacks standing.165

The dissenting judges, following the City of Los Angeles tests for standing, would find that plaintiffs had standing. Here, the dissent found that the majority “imposes so heavy an evidentiary burden on appellants to establish standing that it will be virtually impossible to bring a NEPA challenge to rulemakings [sic] with diffuse impacts.”166

The validity of these cases turns on whether Akins is in fact a general rejection of Justice Scalia’s political view of standing. No post-Akins case pending before the Court contained this question within the issues for which certiorari had been granted. Nevertheless, in January 2000, the answer appeared to burst forth from the court.

VI. STANDING’S MAJORITARIAN VITALITY RETURNS

In Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.167 the Court in a stunning 7 - 2 opinion, essentially rejected the anti-majoritarian view of standing Justice Scalia had been constructing since NWF, to limit standing in citizen suits so that the Executive can “lose or misplace” laws enacted by Congress. As presented to the Court, Laidlaw appeared to be a case in which the Court was to resolve a conflict among the circuit courts of appeals over mootness, i.e., does a defendants’ post-litigation compliance with its Clean

165. Id. at 669.
166. Id. at 675.
167. 120 S. Ct. 693 (2000).
Water Act permit moot a citizen’s claim for civil penalties under the Act? But to decide the narrow question upon which certiorari was granted, the Court had “an obligation to assure [itself] that FOE had Article III standing at the outset of the litigation.” In doing so, the Court, as we will see, returned standing to its 1970s vitality.

Laidlaw began as a routine citizen suit under the Clean Water Act against a permittee which was allegedly violating its permit limits, as evidenced by the discharge monitoring reports it had filed with the state. Laidlaw first sought to avoid the citizen suit by soliciting and subjecting itself to a sweetheart prosecution by the state, and then moving to dismiss the citizen suit as barred under the CWA by the state’s prior action. However, finding that FOE had standing “albeit ‘by the very slimmest of margins’” and the state action had not been diligently prosecuted, the District Court denied Laidlaw’s motion to dismiss. Laidlaw then brought itself into compliance and moved to dismiss the case as moot, since it now was solely about civil penalties for past violations, citing Steel Co. as authority. The Court of Appeals agreed with Laidlaw and ordered the case dismissed. The Court then granted certiorari to decide the mootness question; but before it could reverse the Court of Appeals order, the Court had to independently satisfy itself that FOE had standing. It is on the Court’s standing analysis that we will focus.

First, the Court had to consider whether FOE had alleged constitutionally sufficient “injury-in-fact.” Laidlaw argued that there was “no demonstrated proof of harm to the environment” from its mercury discharge violation so that the “violations at issue … did not result in any health risk or environmental harm” and that FOE’s “vague affidavits” which contained only “unsupported

---

168. See id. at 703.
169. Id. at 704.
170. See id. at 701-702.
171. See id. at 702.
173. See Laidlaw, 890 F. Supp 470, 499 (D.S.C. 1995). “Laidlaw drafted the state-court complaint and settlement agreement, filed the lawsuit against itself, and paid the filing fee.” Id. at 489. “[T]he settlement agreement . . . was entered into with unusual haste, without giving the [Friends of the Earth] the opportunity to intervene.” Id. at 489. And “in imposing the civil penalty . . . [the State] failed to recover, or even to calculate, the economic benefit that Laidlaw received by not complying with its permit.” Id. at 491.
174. See Laidlaw, 149 F. 3d 303 (4th Cir. 1998).
175. Laidlaw, 120 S. Ct. at 704 (citing Lujan v. Defenders of Wildlife, 504 U.S. 555 (1992)).
176. See id. (citing Laidlaw, 956 F. Supp. at 602).
177. Laidlaw, 120 S. Ct. at 704.
178. Id. at 713 (Scalia, J., dissenting).
and unexplained . . . allegations of ‘concern’, . . . cast into doubt the (in any event inadequate) proposition that ‘subjective concerns’ actually affected their conduct.”

Given NWF and Defenders of Wildlife, one would have thought that Laidlaw’s argument was quite powerful, since those cases refused to “find standing based on the ‘conclusory allegations of an affidavit’ . . . .” Indeed, even the District Court was troubled, finding standing to exist by only “the very slimmest of margins.”

That finding having been made years before the trial court’s subsequent finding that Laidlaw discharges did not result in any environmental harm or health risks, would be subject to “reexamination, particularly if later evidence proves inconsistent with [the initial standing conclusion].”

But to the majority, this was not even a close case on standing. First, the lack of environmental harm was constitutionally irrelevant. “The relevant showing for purposes of Article III standing, however, is not injury to the environment but injury to the plaintiff.” The Court emphatically continued: “[t]o insist upon the former rather than the latter as part of the standing inquiry (as the dissent in essence does . . .) is to raise the standing hurdle higher than the necessary showing for success on the merits . . . .”

Focusing its analysis solely on the harm to plaintiff, the Court was untroubled by the supposed de minimus allegations of injury. Unlike the District Court, which found injury in fact by the very slimmest of margins, the Court simply announced “the District Court found that FOE had demonstrated sufficient injury to establish standing.” Returning to the foundational principles of standing, the Court found the affidavits to have “adequately documented injury in fact” because, as the Court reminded us from Sierra Club v. Morton, “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” and “[o]f course, [ironically quoting Justice Scalia’s use of Sierra Club in Defenders of Wildlife], the desire to use or

---

179. Id. at 714.
180. Id. at 715 (citing Lujan v. National Wildlife Federation, 110 S. Ct. 3177).
182. Id at 715.
183. Id. at 704.
184. Id.
185. Id.
186. Id. at 705.
187. Id. (quoting from Sierra Club v. Morton, 405 U.S. 727, 735 (1972)).
observe an animal species, even for purely esthetic purposes is
undeniably a cognizable interest for purposes of standing." Thus,
allegations that plaintiffs’ members lived near the river into which
the pollutants were discharged and that they no longer picnic, hike,
birdwatch, or drive near the river or wade, swim, and boat in the
river because of concern for the harmful effects of the discharges
were nonspeculative, nonconclusory assertions of “reasonable
concerns about the effects of those discharges, [which] directly
affected those affiants’ recreational, aesthetic, and economic
interests.” Thus, to the Court, the plaintiff’s standing case was
routinely adequate, well within NWF and Defenders of Wildlife,
and affidavits of “subjective” fear from pollution were “entirely
reasonable;” it was “enough for injury in fact.”

Laidlaw next argued that even if FOE alleged sufficient injury in
fact, that injury was not redressible by the sole relief pending before
the court, civil penalties payable to the federal government. Based
upon Steel Co., this would seem to be a winning argument. After all,
in Steel Co., the plaintiff did not have standing to seek civil penalties
for wholly past violations because the penalties, which would flow to
the federal treasury provided no redress to plaintiffs. FOE was
also seeking civil penalties for past violations. Thus, if civil penalties
failed to provide redress in Steel Co., why should it in Laidlaw? The
only difference was that Steel Co. came into compliance after they
received plaintiffs’ 60 day notice of suit letter, but before suit was
filed, whereas Laidlaw came into compliance after suit was filed.

Apparently, that difference is critical. The Court used it to justify a
reconsideration of civil penalties as redress, a topic given little
analysis in Steel Co. On reexamination, the views of Justice Stevens’
dissent now prevailed: civil penalties deter future violators and so
provide redress for injury in fact.

On the topic of deterrence the Court was now emphatic:

We have recognized on numerous occasions that “all
civil penalties have some deterrent effect.” More
specifically, Congress has found that civil penalties in
Clean Water Act cases do more than promote

188. Id. (citing Lujan v. Defenders of Wildlife, 504 U.S. at 562-563 (1992)).
189. Id.
190. Id. at 706.
191. Id.
192. Id. at 703 (citing Laidlaw, 149 F. 3d 303 at 306-307 (4th Cir. 1998)).
193. Id. at 707-708.
immediate compliance by limiting the defendant’s economic incentive to delay its attainment of permit limits; they also deter future violations. This congressional determination warrants judicial attention and respect.

***

It can scarcely be doubted that, for a plaintiff who is injured or faces the threat of future 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. Civil penalties can fit that description. To the extent that they 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.194

Moreover, the Court explained, for civil penalties to deter violations, there must be a credible threat that they will be imposed. As a matter of human nature, Congress could reasonably conclude “that an actual award of civil penalties does in fact bring with it a significant quantum of deterrence over and above what is achieved by the mere prospect of such penalties.”195

[T]here may be a point at which the deterrent effect of a claim for civil penalties becomes so insubstantial or so remote that it cannot support citizen standing. The fact that this vanishing point is not easy to ascertain does not detract from the deterrent power of such penalties in the ordinary case . . . . Here, the civil penalties . . . carried with them a deterrent effect that made it likely, as opposed to merely speculative, that the penalties would redress FOE’s injuries . . . .196

Even more important, for purposes of standing analysis, the Court reaffirmed that it was for Congress, not the courts, to make the

194. Id. at 706-07 (citations omitted).
195. Id. at 707.
196. Id.
general determination as to what legal sanctions will best affect policy goals:

How to effectuate policy — the adaptation of means to legitimately sought ends — is one of the most intractable of legislative problems. Whether proscribed conduct is to be deterred by qui tam action or triple damages or injunction, or by criminal prosecution, or merely by defense to actions in contract, or by some, or all, of these remedies in combination, is a matter within the legislature’s range of choice. Judgment on the deterrent effect of the various weapons in the armory of the law can lay little claim to scientific basis.197

In other words, subject to some undefined outer constitutional limit, Congress has the power to define, for constitutional standing purposes, what remedies (even if wholly public) will redress (at least in part) a citizen’s injuries. Apparently, Steel Co. now stands for the extraordinarily narrow proposition that standing will be denied if the suit seeks only civil penalties for wholly past violations that have fully abated prior to suit.198 Laidlaw now provides the rule for that class of cases in which the “violations that are ongoing at the time of the complaint and that could continue into the future if undeterred.”199 In these cases, as of the time of filing the complaint, the remedy of civil penalties can redress the harm from the violations that exist as of the filing, and thus, supports standing. If after commencement of suit, the violations cease, then a defendant can seek dismissal on grounds of mootness, if it can prove to the court absolutely clearly that “‘the allegedly wrongful behavior could not reasonably be expected to recur.’”200

197. Id. (quoting “Justice Frankfurter’s observations for the Court, made in a different context nearly 60 years ago, [which] hold true here as well . . . .”).
198. Id. at 707-708.
199. Id. at 708.
200. Id. at 708. (In seeking to establish mootness, the defendant has a “heavy burden of persuasion.” (citing United States v. Concentrated Phosphate Export Assn., 393 U.S. 199, 203 (1968))). On this point Justice Stevens, concurring, noted “that the case would not be moot even if it were absolutely clear that respondent had gone out of business and posed no threat of future permit violations. The District Court entered a valid judgment requiring respondent to pay a civil penalty of $405,800 to the United States. No post-judgment conduct of respondent could retroactively invalidate that judgment.” Id. at 712 (Stevens, J. concurring). Furthermore, “civil penalties . . . for purposes of mootness analysis, should be equated with punitive damages rather than with injunctive or declaratory relief. No one contends that a defendant’s
Justice Scalia, with whom only Justice Thomas joined, dissented “from all of this.”\(^{201}\) As to injury in fact, Justice Scalia believed there was no injury because of the lack of harm to the environment and because the affidavits presented “nothing but ‘subjective apprehensions.’”\(^{202}\) The dissent complains that although, even to the District Court standing was found only “by the very slimmest of margins,” the Court has just rewritten standing jurisprudence:

Inexplicably, the Court is untroubled by this, but proceeds to find injury in fact in the most casual fashion, as though it is merely confirming a careful analysis made below. Although we have previously refused to find standing based on the “conclusory allegations of an affidavit” the Court is content to do just that today. By accepting plaintiffs’ vague, contradictory, and unsubstantiated allegations of “concern” about the environment as adequate to prove injury in fact, and accepting them even in the face of a finding that the environment was not demonstrably harmed, the Court makes the injury-in-fact requirement a sham.\(^{203}\)

As to the redressability prong of standing, Justice Scalia adamantly objects to the Court’s “cavalier” treatment of Steel Co. because it only involved past violations, and to the Court’s suggestion that a “penalty payable to the public ‘remedies’ a threatened private harm . . . .”\(^{204}\) To Justice Scalia, public remedies for private harms fall within the universe of “generalized grievances.”\(^{205}\) Just as a generalized harm cannot support injury in fact, so to, in his view “a generalized remedy that deters all future unlawful activity against all persons cannot satisfy the remediation requirement, even though it deters (among other things) repetition of this particular unlawful activity against these particular plaintiffs.”\(^{206}\) In Laidlaw, the Court has turned Justice Scalia’s

---

\(^{201}\) Id. at 713.
\(^{202}\) Id. at 714.
\(^{203}\) Id. at 715 (citation omitted).
\(^{204}\) Id.
\(^{205}\) Id. at 716.
\(^{206}\) Id.
jurisprudence on its head by converting “an undifferentiated public interest” into an ‘individual right’ vindicable in the courts.”

In *Laidlaw*, “[a] claim of particularized future injury has today been made the vehicle for pursuing generalized penalties for past violations, and a threshold showing of injury in fact has become a lever that will move the world.”

Justice Scalia also objects to the Court’s uncritical acceptance of Congress’ finding that civil penalties deter future conduct. To Justice Scalia, this “deterrent effect is . . . ‘speculative as a matter of law.’” Although he agrees that, at a general level, “all civil penalties have some deterrent effect,” no prior case has focused on the particular deterrence of a particular penalty on a particular defendant. While the marginal deterrent effect of civil penalties on Laidlaw may be, theoretically greater than zero, to Justice Scalia, “it is entirely speculative whether it will make the difference between these plaintiffs’ [sic] suffering injury in the future and these plaintiffs’ [sic] going unharmed,” and he rejects Congress’ policy findings as determinative — the Court must make its own independent inquiry. He concludes his standing dissent with the frustration that in *Laidlaw* the Court has undone his standing jurisprudence:

In sum, if this case is, as the Court suggests, within the central core of “deterrence” standing, it is impossible to imagine what the “outer limits” could possibly be. The Court’s expressed reluctance to define those “outer limits” serves only to disguise the fact that it has promulgated a revolutionary new doctrine of standing that will permit the entire body of public civil penalties to be handed over to enforcement by private interests.

While he is correct that his standing doctrines have been rejected, they have not been replaced with a “revolutionary new doctrine.” Instead, his attempt in *NWF* and *Defenders of Wildlife* to fashion a new

207. Id. at 717 (citing Lujan v. Defenders of Wildlife, 504 U.S. 555, 577 (1992); Steel Co. v. Citizens for a Better Environment, 523 U.S. 83, 106 (1998)).
208. Id.
209. Id.
210. Id. at 718 (quoting the majority opinion at 706, which cites Hudson v. United States, 522 U.S. 93, 102 (1997)).
211. Id.
212. Id. at 719.
doctrine of standing has not been successful. In *Lujan*, his theoretical view on standing, particularly injury in fact, only garnered a plurality of the Court. But first in *Akins*, and then in *Laidlaw*, his views on the general versus the particular have been rejected. Taken together, *Akins* and *Laidlaw* suggest that within some “outer limits” yet to be defined, Congress has the power to define statutory harm (e.g. information deprived of voters) and redressability for purposes of standing. Moreover, originally defined in *Sierra Club, SCRAP* and *Duke Power*, injury in fact is to be only a minimal hurdle, not a castle wall to be scaled. Thus, standing doctrine is not confined to 19th century conceptions of private law, but is large enough to address modern regulations designed to diminish “probabilistic” harms.

VII. CONCLUSION

*Laidlaw* is important for several reasons. It acknowledges Congress’ power to define injury in fact, causation and redress. It allows those injuries to be probabilistic. It, therefore, reaffirms the central premise in *SCRAP* that “[i]njury in fact injured simply because many others are also injured, would mean that the most injurious and widespread government actions could be questioned by nobody.” *Laidlaw* also brings the concept of standing into line with basic economic principles. By allowing civil penalties that will prospectively deter illegal behavior, the Court constitutionally recognizes the probabilistic role of costs and incentives in influencing behavior. To the extent that civil penalties make illegal behavior more expensive to a violator than legal conduct would, the violator will not benefit from its violation, but be worse off. By placing violators in a worse position than those in compliance are civil penalties will, on average, change behavior and abate the threatened injury.

In the context of climate change, *Laidlaw* will open up the courts to citizens. Under Justice Scalia’s standing theory, because increases in CO₂ concentration affect changes in the climate globally, everyone is harmed so no one could complain. Moreover, because the consequences of incremental increases in CO₂ concentrations are slow to be appreciated, and hard to identify in the specific instance,

---

214. SCRAP, 412 U.S. at 687-88.
(they can only be observed as statistical phenomena) no one could claim direct injury.

However, from the perspective of classic economics, the external costs of CO₂ emissions are greater than $0.0, and therefore the emitters are imposing a cost on all others. Although the precise valuation of these environmental costs is subject to ongoing debate, the environmental harms are real and the costs greater than zero. Laidlaw permits Congress constitutionally to designate these costs as real, to be harm for purposes of standing, and to have policy instruments that respond to the problem to be redress.

Allowing standing to review governmental decisions and to allow citizen suit enforcement is a good thing. Enhanced transparency and accountability leads to improved and more legitimate government decisions. Promoting citizen participation enhances the democratic process. In the context of climate change, improved quality control is essential because of the danger of sham credits, “hot air,” and the myriad of other ways that emission can be reduced on paper but not in fact. Because compliance requires the oversight of far flung projects almost too numerous to count, standing to challenge climate change decisions is vital. Laidlaw will allow all of us not only to complain, but do something about the weather.

216. Efforts to quantify these costs have resulted in a wide spectrum of estimates, but all of them agree that the harms are greater than $0. Most recently the Minnesota Public Service Commission set the environmental costs of CO₂ emissions used to calculate the external costs created by new electricity generation projects; the costs fall in a range from $.030 to $3.10 per ton of CO₂ emissions. See In re Quantification of Environmental Costs, 578 N.W. 2d 794 (Minn. App.1998). Currently about half the states take environmental costs into account. See ENERGY INFORMATION AGENCY, ELECTRICITY GENERATION AND ENVIRONMENTAL EXTERNALITIES: CASE STUDIES (1998).