

PUBLISHED

UNITED STATES COURT OF APPEALS

FOR THE FOURTH CIRCUIT

FRIENDS OF THE EARTH,
INCORPORATED; CITIZENS LOCAL
ENVIRONMENTAL ACTION NETWORK,
INCORPORATED,
Plaintiffs-Appellants,

v.

No. 98-1938

GASTON COPPER RECYCLING
CORPORATION,
Defendant-Appellee.

UNITED STATES OF AMERICA,
Amicus Curiae.

Appeal from the United States District Court
for the District of South Carolina, at Columbia.
Matthew J. Perry, Jr., Senior District Judge.
(CA-92-2574-3)

Argued: October 25, 1999

Decided: February 23, 2000

Before: WILKINSON, Chief Judge, and WIDENER,
MURNAGHAN, WILKINS, NIEMEYER, LUTTIG, WILLIAMS,
MICHAEL, MOTZ, TRAXLER, and KING, Circuit Judges, and
HAMILTON, Senior Circuit Judge.

Reversed and remanded by published opinion. Chief Judge Wilkinson wrote the opinion, in which Judges Widener, Murnaghan, Wilkins, Williams, Michael, Motz, Traxler, and King joined. Judge Niemeyer wrote an opinion concurring in the judgment. Judge Luttig wrote an

opinion concurring in the judgment, in which Judge Niemeyer joined. Senior Judge Hamilton wrote an opinion concurring in the judgment.

COUNSEL

ARGUED: Bruce J. Terris, TERRIS, PRAVLIK & MILLIAN, L.L.P., Washington, D.C., for Appellants. Rufus Justin Smith, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C., for Amicus Curiae. Harold Weinberg Jacobs, NEXSEN, PRUET, JACOBS & POLLARD, L.L.P., Columbia, South Carolina, for Appellee. **ON BRIEF:** Kathleen L. Millian, TERRIS, PRAVLIK & MILLIAN, L.L.P., Washington, D.C.; Robert Guild, Columbia, South Carolina, for Appellants. Lois J. Schiffer, Assistant Attorney General, Greer S. Goldman, David Shilton, UNITED STATES DEPARTMENT OF JUSTICE, Washington, D.C., for Amicus Curiae.

OPINION

WILKINSON, Chief Judge:

Friends of the Earth (FOE) and Citizens Local Environmental Action Network (CLEAN) brought a citizen suit against Gaston Copper Recycling Corporation under the Clean Water Act. 33 U.S.C. §§ 1251-1387 (1994 & Supp. III 1997). Plaintiffs allege that Gaston Copper has been illegally discharging a variety of pollutants into a South Carolina waterway. Wilson Shealy, a CLEAN member who owns a lake only four miles downstream from Gaston Copper's facility, testified that the illegal discharges caused him and his family to reduce their use of his lake. CLEAN also submitted various federal, state, and private studies as evidence that the pollutants released by Gaston Copper adversely affected or threatened Shealy's lake. The district court dismissed the case, holding that plaintiffs lacked standing because they had not demonstrated sufficient injury in fact. Dismissing the action, however, encroaches on congressional authority by erecting barriers to standing so high as to frustrate citizen enforcement of the Clean Water Act. We hold that Shealy, and hence

CLEAN, have standing to sue. We thus reverse the judgment and remand for a determination of whether Gaston Copper has discharged pollutants in excess of its permit limits.

I.

A.

Congress enacted the Federal Water Pollution Control Act Amendments of 1972, better known as the Clean Water Act, "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). This legislation constituted "a major change in the enforcement mechanism of the Federal water pollution control program." American Petroleum Inst. v. Train, 526 F.2d 1343, 1344 (10th Cir. 1975) (internal quotation marks omitted). Prior to 1972, the focus of federal efforts to abate water pollution was measurement of the quality of receiving waters. See, e.g., Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 903. But the great difficulty in establishing reliable, precise limitations on pollution based solely on water quality targets led to substantial enforcement problems. See EPA v. California ex rel. State Water Resources Control Bd., 426 U.S. 200, 202-03 (1976). In fact, the use of water quality standards as a control mechanism was found to be "inadequate in every vital respect." S. Rep. No. 92-414, at 7 (1971), reprinted in 1972 U.S.C.C.A.N. 3668, 3674.

The Clean Water Act therefore shifted the focus of federal enforcement efforts from water quality standards to direct limitations on the discharge of pollutants -- i.e., "effluent limitations." See 33 U.S.C. § 1311; Natural Resources Defense Council, Inc. v. EPA, 915 F.2d 1314, 1316 (9th Cir. 1990). Whereas the previous scheme required proof of actual injury to a body of water to establish a violation, Congress now instituted a regime of strict liability for illegal pollution discharges. See, e.g., United States v. Winchester Mun. Utils., 944 F.2d 301, 304 (6th Cir. 1991). Government regulators were therefore freed from the "need [to] search for a precise link between pollution and water quality" in enforcing pollution controls. S. Rep. No. 92-414, at 8, reprinted in 1972 U.S.C.C.A.N. at 3675. Rather, they could simply determine whether a company was emptying more pollutants

into the water than the Act allowed in order to detect a violation of the statute.

The centerpiece of the Clean Water Act is section 301(a). This section provides: "Except as in compliance with this section and [other sections of the Act], the discharge of any pollutant by any person shall be unlawful." 33 U.S.C. § 1311(a). And in section 402 of the Act, Congress established the National Pollutant Discharge Elimination System (NPDES), which authorizes the issuance of permits for the discharge of limited amounts of effluent. Id. § 1342. The availability of such permits simply recognizes "that pollution continues because of technological limits, not because of any inherent rights to use the nation's waterways for the purpose of disposing of wastes." Natural Resources Defense Council, Inc. v. Costle, 568 F.2d 1369, 1375 (D.C. Cir. 1977) (internal quotation marks omitted). Permit holders must comply not only with limitations on the amount of pollutants they may discharge, but also with a variety of monitoring, testing, and reporting requirements. See, e.g., 33 U.S.C. § 1318.

Both the Environmental Protection Agency (EPA) and individual states (with EPA approval) may issue NPDES permits. See id. § 1342(a), (b). Accordingly, the State of South Carolina has established an NPDES permit program administered by the Department of Health and Environmental Control (DHEC). See S.C. Code Ann. §§ 48-1-10 et seq. (Law. Co-op. 1976 & West Supp. 1998).

Critical to the enforcement of the Clean Water Act is the citizen suit provision found in section 505. 33 U.S.C. § 1365. Section 505(a) states that "any citizen may commence a civil action on his own behalf against any person . . . who is alleged to be in violation of an effluent standard or limitation under this chapter." Id. § 1365(a). An "effluent standard or limitation" is defined to include any term or condition of an approved permit. See id. § 1365(f). Citizens are thus authorized to bring suit against any NPDES permit holder who has allegedly violated its permit. A successful suit may result in the award of injunctive relief and the imposition of civil penalties payable to the United States Treasury. See id. § 1365(a).

Section 505(g) sets forth the statutory standing requirement for the citizen suit provision of the Clean Water Act. Id. § 1365(g). Specifi-

cally, it defines "citizen" as "a person or persons having an interest which is or may be adversely affected." Id. Congress has indicated that this provision confers standing to enforce the Clean Water Act to the full extent allowed by the Constitution. See Middlesex County Sewerage Auth. v. National Sea Clammers Ass'n, 453 U.S. 1, 16 (1981) (citing S. Conf. Rep. No. 92-1236, at 146 (1972), reprinted in 1972 U.S.C.C.A.N. 3776, 3823, which notes that the term "citizen" in the Clean Water Act reflects the Supreme Court's decision in Sierra Club v. Morton, 405 U.S. 727 (1972)).

B.

Defendant Gaston Copper owns and operates a non-ferrous metals smelting facility in Lexington County, South Carolina. At this plant, Gaston Copper treats contaminated storm water and releases it into Lake Watson, an impoundment on Gaston Copper's property. Lake Watson's overflow is then discharged into the environment by way of Boggy Branch, a tributary of Bull Swamp Creek. Bull Swamp Creek in turn flows into the North Fork of the Edisto River, which lies 16.5 miles downstream from the discharge point.

When Gaston Copper purchased the operation in 1990, the facility was covered by an NPDES permit issued by DHEC to the plant's previous owner. DHEC reissued the permit to Gaston Copper with an effective date of March 1, 1991. This permit allowed Gaston Copper to discharge wastewater containing limited quantities of pollutants, including cadmium, copper, iron, lead, mercury, nickel, PCBs, and zinc, from Lake Watson into Boggy Branch. The permit imposed pH limits as well. The terms and conditions of the permit included the monitoring and reporting of effluent discharges. Gaston Copper was also required to abide by a schedule of compliance for meeting its effluent limitations.

Plaintiffs FOE and CLEAN are two non-profit environmental organizations dedicated to protecting and improving the quality of natural resources. One of FOE's stated objectives is "to combat and eliminate water pollution." CLEAN exists "to clean up South Carolina's environment" and to "educat[e] South Carolinians about environmental issues affecting them as citizens and ways to address those issues."

Wilson Shealy is a member of CLEAN who lives with his family four miles downstream from Gaston Copper's facility. Shealy has resided on this property since 1964. His land contains a 67-acre lake that was created by damming Bull Swamp Creek. Shealy and his family fish, swim, and boat in the lake. Specifically, Shealy claims that he fishes in the lake approximately every other week and swims in it about twice per year. He occasionally eats the fish that he catches in the lake. Further, Shealy's grandchildren, who live with him in the summer, swim and fish in the lake nearly every summer day.

Shealy claims that the pollution or threat of pollution from Gaston Copper's upstream facility has adversely affected his and his family's use and enjoyment of the lake. He limits the amount of time that his family swims in the lake because of his concern that the water is polluted. He also limits the quantity of fish that they eat out of fear that Gaston Copper's chemicals have lodged in the fish. Shealy states that if it were not for this concern about pollution, he would fish in his lake more often, eat the fish he catches more often, and allow his family to swim in the lake more often. He also alleges that the actual or threatened pollution diminishes the value of his property. Shealy has heard people refer to his lake as "the polluted pond."

Guy Jones is a member of both FOE and CLEAN. He is the owner and president of a canoe company that runs trips on the Edisto River. Jones claims that his concern that Gaston Copper is polluting the Edisto River affects his enjoyment of canoeing and swimming. He also claims that his concern about the water quality undermines his confidence in his company's ability to market its trips to the general public.

William McCullough, Jr., is a member of FOE who scuba dives in the Edisto River. He claims that he is concerned that the waters into which he dives may be contaminated. McCullough is particularly troubled by the possible presence of heavy metals. He states that he would be less likely to dive into water that he knows to contain pollutants.

On September 14, 1992, FOE and CLEAN filed a citizen suit in the United States District Court for the District of South Carolina pursuant to section 505 of the Clean Water Act. They alleged that Gaston

Copper had repeatedly violated the terms and conditions of its NPDES permit at its Gaston facility. Specifically, plaintiffs claimed that Gaston Copper had exceeded its permit's discharge limitations on numerous occasions, failed to observe its permit's monitoring and reporting requirements, and failed to meet its schedule of compliance. Plaintiffs sought declaratory and injunctive relief to prevent further permit violations, as well as the imposition of civil penalties and costs.

Nearly six years after suit was filed and after a six-day bench trial, the district court declined to rule on the merits of the case. The court instead dismissed plaintiffs' complaint for lack of standing, holding that none of plaintiffs' members had shown injury in fact. See Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 9 F. Supp. 2d 589 (D.S.C. 1998). A divided panel of this court affirmed the district court's judgment. See Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 179 F.3d 107 (4th Cir. 1999). We granted rehearing en banc and now reverse.

II.

A.

Article III of the Constitution restricts the federal courts to the adjudication of "cases" and "controversies." The threshold requirement of standing is "perhaps the most important" condition of justiciability. Allen v. Wright, 468 U.S. 737, 750 (1984). The standing inquiry ensures that a plaintiff has a sufficient personal stake in a dispute to render judicial resolution appropriate. See id. at 750-51. The standing requirement also "tends to assure that the legal questions presented to the court will be resolved, not in the rarefied atmosphere of a debating society, but in a concrete factual context conducive to a realistic appreciation of the consequences of judicial action." Valley Forge Christian College v. Americans United for Separation of Church and State, Inc., 454 U.S. 464, 472 (1982).

To meet the constitutional minimum for standing, "[a] plaintiff must allege personal injury fairly traceable to the defendant's allegedly unlawful conduct and likely to be redressed by the requested relief." Allen, 468 U.S. at 751. This formula includes three elements:

(1) injury in fact; (2) traceability; and (3) redressability. See Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992). The injury in fact prong requires that a plaintiff suffer an invasion of a legally protected interest which is concrete and particularized, as well as actual or imminent. See id. at 560. The traceability prong means it must be likely that the injury was caused by the conduct complained of and not by the independent action of some third party not before the court. See id. Finally, the redressability prong entails that it must be likely, and not merely speculative, that a favorable decision will remedy the injury. See id. at 561.

While each of the three prongs of standing should be analyzed distinctly, their proof often overlaps. Moreover, these requirements share a common purpose -- namely, to ensure that the judiciary, and not another branch of government, is the appropriate forum in which to address a plaintiff's complaint. See Allen, 468 U.S. at 752.

In most kinds of litigation, there is scant need for courts to pause over the standing inquiry. One can readily recognize that the victim of an automobile accident or a party to a breached contract bears the kind of claim that he may press in court. In other sorts of cases, however, the nexus between the legal claim and the individual asserting the claim may not be so self-evident. Standing inquiry in environmental cases, for example, must reflect the context in which the suit is brought. In some instances, environmental injury can be demarcated as a traditional trespass on property or tortious injury to a person. In other cases, however, the damage is to an individual's aesthetic or recreational interests. The Supreme Court has made it clear that such interests may be vindicated in the federal courts. See, e.g., Friends of the Earth, Inc. v. Laidlaw Env'tl. Servs. (TOC), Inc., 120 S. Ct. 693, 705 (2000) (effect on "recreational, aesthetic, and economic interests" is cognizable injury for purposes of standing); Lujan v. Defenders of Wildlife, 504 U.S. at 562-63 (purely aesthetic interest is cognizable for purposes of standing); Sierra Club v. Morton, 405 U.S. at 734 ("Aesthetic and environmental well-being, like economic well-being, are important ingredients of the quality of life in our society . . . deserving of legal protection through the judicial process."); Association of Data Processing Serv. Orgs. v. Camp, 397 U.S. 150, 154 (1970) (interest supporting standing "may reflect aesthetic, conservation, and recreational as well as economic values" (internal

quotation marks omitted)). But because these and other noneconomic interests may be widely shared, the Supreme Court has cautioned that environmental plaintiffs must themselves be "among the injured." Sierra Club v. Morton, 405 U.S. at 735. If it were otherwise, the Article III case or controversy requirement would be reduced to a meaningless formality.

Courts must therefore examine the allegations in such cases "to ascertain whether the particular plaintiff is entitled to an adjudication of the particular claims asserted." Allen, 468 U.S. at 752. Such scrutiny is necessary to filter the truly afflicted from the abstractly distressed. Courts discharge this duty by asking such questions as: "Is the injury too abstract, or otherwise not appropriate, to be considered judicially cognizable? Is the line of causation between the illegal conduct and injury too attenuated? Is the prospect of obtaining relief from the injury as a result of a favorable ruling too speculative?" Id. If the plaintiff can show that his claim to relief is free from excessive abstraction, undue attenuation, and unbridled speculation, the Constitution places no further barriers between the plaintiff and an adjudication of his rights.

B.

In addition to meeting the "irreducible" constitutional minimum, Lujan v. Defenders of Wildlife, 504 U.S. at 560, an individual must also satisfy any statutory requirements for standing before bringing suit. As noted earlier, the citizen suit provision of the Clean Water Act confers standing on any "person or persons having an interest which is or may be adversely affected." 33 U.S.C. § 1365(g). The language chosen by Congress confers standing on a "broad category of potential plaintiffs" who "can claim some sort of injury," be it actual or threatened, economic or noneconomic. National Sea Clammers, 453 U.S. at 16-17.

The Supreme Court recognized in National Sea Clammers that this grant of standing reaches the outer limits of Article III. Id. at 16 ("It is clear from the Senate Conference Report that this phrase was intended by Congress to allow suits by all persons possessing standing under this Court's decision in Sierra Club v. Morton."). Thus, if

a Clean Water Act plaintiff meets the constitutional requirements for standing, then he ipso facto satisfies the statutory threshold as well.

C.

Finally, an association may have standing to sue in federal court either based on an injury to the organization in its own right or as the representative of its members who have been harmed. See Warth v. Seldin, 422 U.S. 490, 511 (1975). An organization has representational standing when (1) at least one of its members would have standing to sue in his own right; (2) the organization seeks to protect interests germane to the organization's purpose; and (3) neither the claim asserted nor the relief sought requires the participation of individual members in the lawsuit. See Hunt v. Washington State Apple Adver. Comm'n, 432 U.S. 333, 343 (1977).

FOE and CLEAN assert representational standing on behalf of their members who have been harmed or threatened by Gaston Copper's discharge. The parties in this case contest only whether the first prong of representational standing -- i.e., whether any member of FOE or CLEAN has individual standing -- has been satisfied.

III.

The district court held that FOE and CLEAN lacked standing under Article III because they failed to establish that any of their members suffered an injury fairly traceable to Gaston Copper's alleged permit violations. The court pointed to the supposed absence of certain types of evidence: "No evidence was presented concerning the chemical content of the waterways affected by the defendant's facility. No evidence of any increase in the salinity of the waterways, or any other negative change in the ecosystem of the waterway was presented." Gaston Copper Recycling, 9 F. Supp. 2d at 600. The district court therefore concluded that "[n]o evidence was presented that any plaintiff member has been adversely affected by the defendant's conduct." Id.

We disagree. CLEAN has surpassed the threshold that Article III and the Clean Water Act set for establishing a case or controversy.

Wilson Shealy is a classic example of an individual who has suffered an environmental injury in fact fairly traceable to a defendant's conduct and likely to be redressed by the relief sought. The trial court erred therefore in creating evidentiary barriers to standing that the Constitution does not require and Congress has not embraced. In fact, the legislative branch has invited precisely the type of suit brought by CLEAN. The judicial branch is not at liberty to impede its resolution on the merits.

A.

We proceed then to examine each of the three elements of the standing inquiry. The injury in fact requirement precludes those with merely generalized grievances from bringing suit to vindicate an interest common to the entire public. See Lujan v. Defenders of Wildlife, 504 U.S. at 575. A plaintiff must instead suffer an invasion of a legally protected interest that is "concrete and particularized" before he can bring an action. Id. at 560. He must somehow differentiate himself from the mass of people who may find the conduct of which he complains to be objectionable only in an abstract sense. In other words, the alleged injury "must affect the plaintiff in a personal and individual way." Id. at 560 n.1. Without this requirement, the federal judicial process would be transformed into "no more than a vehicle for the vindication of the value interests of concerned bystanders." Valley Forge, 454 U.S. at 473 (internal quotation marks omitted).

The injury in fact requirement also blocks suit by those whose allegations of injury are based on mere conjecture rather than an actual or threatened invasion of their legally protected interests. See Lujan v. Defenders of Wildlife, 504 U.S. at 560. Federal jurisdiction cannot lie if the alleged injury is merely "an ingenious academic exercise in the conceivable." United States v. Students Challenging Regulatory Agency Procedures (SCRAP), 412 U.S. 669, 688 (1973). But this standard is one of kind and not of degree. Indeed, the claimed injury "need not be large, an identifiable trifle will suffice." Sierra Club v. Cedar Point Oil Co., 73 F.3d 546, 557 (5th Cir. 1996) (internal quotation marks omitted); see also Conservation Council of North Carolina v. Costanzo, 505 F.2d 498, 501 (4th Cir. 1974) ("The claimed injury need not be great or substantial; an identifiable trifle, if actual and genuine, gives rise to standing." (internal quotation marks omitted)).

Shealy has plainly demonstrated injury in fact. He has produced evidence of actual or threatened injury to a waterway in which he has a legally protected interest. Shealy is a property owner whose lake lies in the path of Gaston Copper's toxic chemical discharge. He and his family swim and fish in this lake. Shealy testified that he and his family swim less in and eat less fish from the lake because of his fears of pollution from Gaston Copper's permit exceedances. Shealy further claims that the pollution or threat of pollution has diminished the value of his property. Indeed, others have referred to his lake as "the polluted pond."

In fact, Shealy has alleged precisely those types of injuries that Congress intended to prevent by enacting the Clean Water Act. One of the well-recognized aims of the Act is to ensure that the nation's waterways are "fishable and swimmable." See, e.g., Shanty Town Assocs. Ltd. Partnership v. EPA, 843 F.2d 782, 784 (4th Cir. 1988). Congress proclaimed this goal to provide "for the protection and propagation of fish, shellfish, and wildlife and provide[] for recreation in and on the water." 33 U.S.C. § 1251(a)(2). And it is well established that the "injury required by Article III may exist solely by virtue of statutes creating legal rights, the invasion of which creates standing." Warth, 422 U.S. at 500 (internal quotation marks omitted). Moreover, DHEC developed Gaston Copper's permit limits pursuant to a statutory command to protect public health, fish, and wildlife and to allow recreational activities on the water. See 33 U.S.C. § 1312(a). These health and recreational interests are constitutionally recognized as cognizable bases for injury in fact. See, e.g., Laidlaw, 120 S. Ct. at 705; Sierra Club v. Morton, 405 U.S. at 734.

Shealy is thus anything but a roving environmental ombudsman seeking to right environmental wrongs wherever he might find them. He is a real person who owns a real home and lake in close proximity to Gaston Copper. These facts unquestionably differentiate Shealy from the general public. The company's discharge violations affect the concrete, particularized legal rights of this specific citizen. He brings this suit to vindicate his private interests in his and his family's well-being -- not some ethereal public interest. We in turn are presented with an issue "traditionally thought to be capable of resolution through the judicial process." Allen, 468 U.S. at 752 (internal quotation marks omitted).

Further, CLEAN has presented ample evidence that Shealy's fears are reasonable and not based on mere conjecture. The record is replete with evidence that Gaston Copper is fouling its receiving waters. Plaintiffs submitted discharge monitoring reports spanning more than four years of Gaston Copper's operations. They allege that these reports show over 500 violations of the company's discharge limits, including unlawful releases of cadmium, copper, iron, lead, and zinc, as well as pH violations.

Plaintiffs also offered evidence in the form of EPA studies and expert testimony of the adverse health and environmental effects of these chemicals. For example, copper is particularly toxic to aquatic organisms and can prevent spawning in fish. See Joint Appendix at 183, 439. Human beings are sensitive to lead poisoning, which can result in irreversible brain damage to children and other neurological impairment. See J.A. at 185, 448. Cadmium is also toxic and may cause a variety of health problems in humans, including cancer. See J.A. at 186, 412-15. Iron is chronically toxic to aquatic organisms and leads to rust formation, which in turn degrades the aesthetic quality of the lake. See J.A. at 186. And disruption of the acceptable pH level of a waterway may increase the toxicity of certain chemicals to fish. See J.A. at 482-83.

Plaintiffs submitted further evidence that Gaston Copper's permit exceedances could and did cause environmental degradation. To begin with, many of Gaston Copper's discharge limits were established by DHEC in order to attain a particular water quality. Because these discharge restrictions are set at the level necessary to protect the designated uses of the receiving waterways, their violation necessarily means that these uses may be harmed. See, e.g., Public Interest Group of New Jersey, Inc. v. Rice, 774 F. Supp. 317, 328 (D.N.J. 1991). This fact was confirmed by a DHEC employee called to the stand by Gaston Copper at trial:

[Q:] And it's also assumed, is it not, that if you do not meet those [water-quality-based discharge] limits, you may be interfering with the designated uses of those waterways?

[A:] That's correct.

[Q:] And therefore if a designated use is swimming and you don't meet those limits, you may very well be interfering with the safety of swimming in that waterway?

[A:] That's correct.

In addition, Gaston Copper failed forty-one whole effluent toxicity tests in the forty-nine months between March 1991 and March 1995. These tests consisted of placing small organisms in effluent samples and counting the number that sicken. And at least eight of these toxicity failures were based on samples taken on days when the company allegedly violated its effluent limits. Even the company's own studies showed elevated quantities of cadmium, copper, lead, and mercury in sediment taken from the facility's receiving waters and unnatural concentrations of metals in the tissue of fish. Gaston Copper's permit violations thus bear a direct relationship to the waterway's health.

Moreover, Gaston Copper's discharge affects or can affect the waters for a significant distance downstream. The parties have stipulated that the overflow from Lake Watson pours into Boggy Branch, a tributary of Bull Swamp Creek, which empties into the Edisto River. Yet plaintiffs offer far more than the stipulated description of the downstream flow of the water. During the comment period for Gaston Copper's permit, DHEC officially responded in writing to one downstream property owner's question as follows:

[Q:] I own property where Bull Swamp goes into the Edisto River, and I'd like to know, would the runoff go that far?

[A:] Yes, the runoff will go to Boggy Branch to Bull Swamp to the Edisto River. The confluence of Bull Swamp and [the] Edisto River is 16.5 miles.

Common sense dictates that the purpose of the question was to determine just how far downstream Gaston Copper's discharge would affect property owners. And the clear implication of DHEC's response is that Gaston Copper's discharges can impact the receiving waterway for a good distance downstream -- well past Shealy's property and on down to the Edisto River itself. Shealy's lake is fed by

Bull Swamp Creek only four miles downstream from the polluting facility. DHEC has indicated that the runoff will reach at least as far as the Edisto, which lies 12.5 miles beyond Shealy's property. Shealy's lake and home therefore lie more than four times closer to Gaston Copper than the acknowledged outer perimeter of the discharge zone.

As if this were not enough, Shealy has also presented uncontroverted testimony that the types of chemicals released into the water by Gaston Copper had been previously found in his lake. DHEC employees visited Shealy's property in the 1980s, analyzed the water quality of his lake, and reported the presence of copper, zinc, nickel, iron, and PCBs. These are the same chemicals that the plant released in its wastewater during the tenures of both Gaston Copper and its predecessor. Although these tests were conducted before Gaston Copper took control of the facility in 1990, Gaston Copper operated the smelting facility using a similar wastewater treatment system to that of its predecessor. The evidence of past pollution is therefore directly relevant to the question of whether Gaston Copper subsequently affected or could affect Shealy's lake. Shealy's testimony that pollution of the type discharged by this system has reached his lake in the past shows that his fears are based on more than mere speculation.

In sum, the evidence paints a stark picture: Gaston Copper has been accused of violating its discharge permit. Its discharge affects or has the potential to affect the waterway for 16.5 miles downstream. Wilson Shealy sits a mere four miles from the mouth of the discharge pipe. The state has found the kinds of chemicals discharged by Gaston Copper in Shealy's lake in the past. And federal and private studies demonstrate the harmful environmental and health impacts of the toxic chemicals released by Gaston Copper. When this evidence is viewed in light of the legal threshold for standing, it is clear that the district court erroneously dismissed plaintiffs' suit. Shealy's claim is not a "generalized grievance" that relegates him to the status of a "concerned bystander" with a mere abstract interest in the environment. Gaston Copper Recycling, 9 F. Supp. 2d at 600. While Shealy is unquestionably "concerned," he is no mere "bystander." See Cedar Point Oil Co., 73 F.3d at 556.

It is instructive to contrast Shealy's injury with the injuries alleged by the plaintiffs in Lujan v. Defenders of Wildlife, 504 U.S. 555. In

that case, the Defenders of Wildlife sought to challenge a government regulation that rendered the Endangered Species Act inapplicable to American actions in foreign nations. See id. at 557-558. Two members of the group alleged that they had traveled to foreign countries and observed the habitats of certain endangered species. See id. at 563. They also professed an intent to return to those countries at some indefinite future time in the hope of seeing the animals themselves. See id. at 563-64. The members feared, however, that American involvement in development projects abroad would damage the species' habitats, thereby risking extinction and causing the members harm. See id. at 563.

The Supreme Court dismissed the case for lack of standing because plaintiff's members' allegations were insufficient to establish injury in fact. See id. at 564-66. The members failed to show how damage to the species would produce imminent injury to themselves. See id. at 564. They could not demonstrate any injury "apart from their special interest in the subject." Id. at 563 (internal quotation marks omitted). Their "some day" intentions to return to the areas they had visited were simply not enough. See id. at 564. The Court also rejected a variety of theories connecting distant plaintiffs to areas of impact on endangered species as "ingenious academic exercise[s] in the conceivable." Id. at 566 (internal quotation marks omitted). The most expansive of these theories would have recognized injury in fact to "anyone who observes or works with an endangered species, anywhere in the world" resulting from "a single project affecting some portion of that species with which he has no more specific connection." Id. at 567.

Shealy, by contrast, need not resort to such hypothetical harms to demonstrate his injury in fact. He is not asserting a mere academic or philosophical interest in the protection of the South Carolina waterways affected by Gaston Copper's pollution. Nor does he claim that he merely "some day" intends to enjoy the use of his lake. Rather, he is a property owner in the path of a toxic discharge whose injury is ongoing. He is thus precisely the type of plaintiff that the Supreme Court envisioned in Lujan v. Defenders of Wildlife -- namely, one who is acting to protect a "threatened concrete interest of his" own. 504 U.S. at 573 n.8.

The district court, however, required that plaintiffs present further evidence concerning one or more of the following: (1) "the chemical content of the waterways affected by the defendant's facility"; (2) "any increase in the salinity of the waterways"; and (3) "other negative change in the ecosystem of the waterway." Gaston Copper Recycling, 9 F. Supp. 2d at 600. But the Supreme Court does not require such proof. In Laidlaw, 120 S. Ct. at 704-05, the Court found that several citizen affidavits attesting to reduced use of a waterway out of reasonable fear and concern of pollution "adequately documented injury in fact." Each of the citizens alleged that he or she would make greater recreational use of some part of the affected waterway were it not for their concern about the harmful effects of the defendant's discharges. See id. The Court required no evidence of actual harm to the waterway, noting: "We have held 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." Id. at 705 (quoting Sierra Club v. Morton, 405 U.S. at 735).

Nor has any circuit required additional scientific proof where there was a direct nexus between the claimant and the area of environmental impairment. In Cedar Point Oil Co., for example, the Fifth Circuit held that citizens' concern about water quality in Galveston Bay sufficed as injury in fact where "[t]wo of the affiants live near Galveston Bay and all of them use the bay for recreational activities." 73 F.3d at 556. It was enough that "the affiants expressed fear that the discharge . . . will impair their enjoyment of these activities because these activities are dependent upon good water quality." Id.

Likewise, in Friends of the Earth v. Consolidated Rail Corp., the Second Circuit found that two citizen affidavits "quite adequately satisfy the standing threshold." 768 F.2d 57, 61 (2d Cir. 1985). In the first affidavit, a citizen stated that "he passes the Hudson [River] regularly and find[s] the pollution in the river offensive to [his] aesthetic values." Id. (internal quotation marks omitted). In the second, a father "averred that his children swim in the river, his son occasionally fishes in the river and his family has and will continue to picnic along the river." Id. And in United States v. Metropolitan St. Louis Sewer Dist., the Eighth Circuit approved the standing of a citizens' group whose members alleged that they "visit, cross, and frequently

observe" the Mississippi River and "from time to time . . . use these waters for recreational purposes." 883 F.2d 54, 56 (8th Cir. 1989). In none of these cases -- where incidentally the claims of standing were weaker than the one before us -- did the court require further specific allegations or evidence of the actual level of pollution in the waterway.

Courts have also left no doubt that threatened injury to Shealy is by itself injury in fact. The Supreme Court has consistently recognized that threatened rather than actual injury can satisfy Article III standing requirements. See, e.g., Valley Forge, 454 U.S. at 472; Gladstone Realtors v. Village of Bellwood, 441 U.S. 91, 99 (1979). "[O]ne does not have to await the consummation of threatened injury to obtain preventive relief. If the injury is certainly impending that is enough." Babbitt v. United Farm Workers Nat'l Union, 442 U.S. 289, 298 (1979) (internal quotation marks omitted).

Threats or increased risk thus constitutes cognizable harm. Threatened environmental injury is by nature probabilistic. And yet other circuits have had no trouble understanding the injurious nature of risk itself. For example, in Village of Elk Grove Village v. Evans, the Seventh Circuit found standing because "[t]he Village is in the path of a potential flood" and "even a small probability of injury is sufficient to create a case or controversy." 997 F.2d 328, 329 (7th Cir. 1993). Similarly, the District of Columbia Circuit in Mountain States Legal Found. v. Glickman held that an increased risk of wildfire from certain logging practices constitutes injury in fact. 92 F.3d 1228, 1234-35 (D.C. Cir. 1996). And the Fifth Circuit in Cedar Point Oil Co. did not require evidence of actual harm to the waterway, noting: "That this injury is couched in terms of future impairment rather than past impairment is of no moment." 73 F.3d at 556.

In this case, Gaston Copper's alleged permit violations threaten the waters within the acknowledged range of its discharge, including the lake on Shealy's property. By producing evidence that Gaston Copper is polluting Shealy's nearby water source, CLEAN has shown an increased risk to its member's downstream uses. This threatened injury is sufficient to provide injury in fact. Shealy need not wait until his lake becomes barren and sterile or assumes an unpleasant color and smell before he can invoke the protections of the Clean Water

Act. Such a novel demand would eliminate the claims of those who are directly threatened but not yet engulfed by an unlawful discharge. Article III does not bar such concrete disputes from court. See Lujan v. Defenders of Wildlife, 504 U.S. at 560-61.

Gaston Copper contends that Shealy has not supplied adequate proof of environmental degradation to show injury in fact. "The relevant showing for purposes of Article III standing, however, is not injury to the environment but injury to the plaintiff. To insist upon the former rather than the latter as part of the standing inquiry . . . is to raise the standing hurdle higher than the necessary showing for success on the merits in an action alleging noncompliance with an NPDES permit." Laidlaw, 120 S. Ct. at 704. Shealy's reasonable fear and concern about the effects of Gaston Copper's discharge, supported by objective evidence, directly affect his recreational and economic interests. This impact constitutes injury in fact. See id. at 705-06. It requires no abstraction or conjecture to understand the harm that confronts Shealy. We therefore have no doubt that Shealy can be counted "among the injured" for standing purposes. Lujan v. Defenders of Wildlife, 504 U.S. at 563 (internal quotation marks omitted). The district court's error lies in asking too much-- namely, in constructing barriers to an injured citizen's vindication of indisputably private interests in the use of his property and in the health of his family. Article III does not command such a judicial evisceration of the Clean Water Act's protections. And separation of powers principles will not countenance it.¹

B.

CLEAN also satisfies the second prong of the standing inquiry.

¹ It is clear that CLEAN member Shealy has demonstrated injury in fact. The claims to injury of FOE members Jones and McCullough, however, present closer questions. The district court has not had an opportunity to consider their claims in light of the Supreme Court's standing analysis in Laidlaw, 120 S. Ct. at 704-06. We therefore remand Jones' and McCullough's assertions of standing to the district court for evaluation in light of Laidlaw. We leave to the discretion of the district court whether to reopen the record for further testimony on the question of FOE's standing.

The "fairly traceable" requirement ensures that there is a genuine nexus between a plaintiff's injury and a defendant's alleged illegal conduct. See Lujan v. Defenders of Wildlife, 504 U.S. at 560. But traceability "does not mean that plaintiffs must show to a scientific certainty that defendant's effluent . . . caused the precise harm suffered by the plaintiffs." Natural Resources Defense Council, Inc. v. Watkins, 954 F.2d 974, 980 n.7 (4th Cir. 1992) (quoting Public Interest Group of New Jersey, Inc. v. Powell Duffryn Terminals, Inc., 913 F.2d 64, 72 (3d Cir. 1990)). If scientific certainty were the standard, then plaintiffs would be required to supply costly, strict proof of causation to meet a threshold jurisdictional requirement -- even where, as here, the asserted cause of action does not itself require such proof. Thus, the "fairly traceable" standard is "not equivalent to a requirement of tort causation." Id. (quoting Powell Duffryn Terminals, 913 F.2d at 72). Other circuits have refused to interpret it as such. See Cedar Point Oil Co., 73 F.3d at 557-58; Natural Resources Defense Council, Inc. v. Texaco Ref. & Mktg., Inc., 2 F.3d 493, 505 (3d Cir. 1993); Powell Duffryn Terminals, 913 F.2d at 72-73.

Rather than pinpointing the origins of particular molecules, a plaintiff "must merely show that a defendant discharges a pollutant that causes or contributes to the kinds of injuries alleged" in the specific geographic area of concern. Watkins, 954 F.2d at 980 (internal quotation marks omitted). In this way a plaintiff demonstrates that a particular defendant's discharge has affected or has the potential to affect his interests. See id. at 980-81.

CLEAN has satisfied this standard. Much of the evidence already cited for Shealy's injury in fact also proves traceability to Gaston Copper. Shealy testified to the past presence of metals in his lake of the type discharged by Gaston Copper. Plaintiffs have also submitted toxicity tests that show Gaston Copper is discharging pollutants at levels that cause environmental degradation. In addition, plaintiffs submitted evidence that the company's discharge will travel 16.5 miles downstream -- well beyond the four-mile point that is Shealy's lake. Shealy's testimony, buttressed by objective evidence from DHEC, thus establishes that his injuries are fairly traceable to Gaston Copper.

Moreover, there is no suggestion that any entity other than Gaston Copper is responsible for the injury in fact that Shealy has estab-

lished. The "fairly traceable" requirement is in large part designed to ensure that the injury complained of is "not the result of the independent action of some third party not before the court." Lujan v. Defenders of Wildlife, 504 U.S. at 560 (internal quotation marks omitted). Where a plaintiff has pointed to a polluting source as the seed of his injury, and the owner of the polluting source has supplied no alternative culprit, the "fairly traceable" requirement can be said to be fairly met. This is the case here. As we have held, Shealy has shown injury in fact. This injury must, of course, be attributable to someone or something. Shealy points to a definite polluting source -- namely, Gaston Copper -- and supports this contention with objective evidence. Gaston Copper points to no other polluting source in response. Its efforts to contest the traceability of Shealy's injury to its facility therefore fail.

We decline to transform the "fairly traceable" requirement into the kind of scientific inquiry that neither the Supreme Court nor Congress intended. The absence of laboratory analysis of the chemical content, salinity, or ecosystem of Shealy's lake is of no moment for one simple reason: The law does not require such evidence. While Article III sets the minimum requirements for standing, Congress is entitled to impose more exacting standing requirements for the vindication of federal statutory rights if it wishes. Here the legislature chose to go to the full extent of Article III in conferring standing on any person with "an interest which is or may be adversely affected." 33 U.S.C. § 1365(g); National Sea Clammers, 453 U.S. at 16. To have standing hinge on anything more in a Clean Water Act case would necessitate the litigation of complicated issues of scientific fact that are entirely collateral to the question Congress wished resolved-- namely, whether a defendant has exceeded its permit limits.

In applying the "fairly traceable" requirement, some distinction, of course, must be made between plaintiffs who lie within the discharge zone of a polluter and those who are so far downstream that their injuries cannot fairly be traced to that defendant. Compare Friends of the Earth, Inc. v. Crown Cent. Petroleum Corp., 95 F.3d 358, 361-62 (5th Cir. 1996) (finding an eighteen-mile distance "too large to infer causation"), with Friends of the Earth, Inc. v. Chevron Chem. Co., 900 F. Supp. 67, 75 (E.D. Tex. 1995) (finding a two-to-four-mile distance sufficient to show causation). But to turn away a citizen who sits

squarely in the discharge zone of a polluting facility seems more calculated "to negate the strict liability standard of the [Clean Water] Act" than to articulate any meaningful distinction. Powell Duffryn Terminals, 913 F.2d at 73 n.10. CLEAN has charged that (1) Gaston Copper exceeds its discharge permit limits for chemicals that cause the types of injuries Shealy alleges and that (2) Shealy's lake lies within the range of that discharge. No court has required additional proof of causation in such a case.

C.

Finally, CLEAN has standing because a favorable decision by the district court will redress Shealy's injuries. The redressability requirement ensures that a plaintiff "personally would benefit in a tangible way from the court's intervention." Warth, 422 U.S. at 508. A plaintiff seeking injunctive relief shows redressability by "alleg[ing] a continuing violation or the imminence of a future violation" of the statute at issue. Steel Co. v. Citizens for a Better Env't, 118 S. Ct. 1003, 1019 (1998); see also Laidlaw, 120 S. Ct. at 707-08 (noting that Steel Co. held that private plaintiffs may not sue to assess penalties for wholly past violations).

Here CLEAN seeks injunctive and other relief for Gaston Copper's continuing and threatened future violations of its permit. Not only did CLEAN allege continuing violations in its complaint, but over 350 of the alleged discharge violations and over 650 of the alleged monitoring and reporting violations occurred after the complaint was filed. In fact, some of the alleged violations occurred in 1997, the last period for which the record contains evidence. CLEAN has sought relief for continuing and threatened future violations at every stage of this litigation, including this appeal. We hold therefore that CLEAN presents claims of redressable injury.²

² Because Shealy used a waterway adversely affected or capable of being adversely affected by Gaston Copper's conduct, Gaston Copper's monitoring and reporting violations also cause him injury in fact. CLEAN alleges that these violations continue and requests injunctive and other relief to stop them. CLEAN thus has standing to pursue its monitoring and reporting claims under a straightforward application of this circuit's precedent in Sierra Club v. Simkins Indus., Inc., 847 F.2d

IV.

This case illustrates at heart the importance of judicial restraint. Courts are not at liberty to write their own rules of evidence for environmental standing by crediting only direct evidence of impairment. Such elevated evidentiary hurdles are in no way mandated by Article III. Nor are they permitted by the Federal Rules of Evidence or the text of the Clean Water Act. It is in fact difficult to see how one can move from the section 505(g) standard of "an interest which is or may be adversely affected" to a standard of direct scientific proof of an observable negative impact on a waterway.

Litigants routinely rely on circumstantial evidence to prove any number of contested issues. And if a prosecutor may rely wholly on circumstantial evidence to prove that a criminal defendant is guilty beyond a reasonable doubt, there is no apparent reason -- and certainly not a reason apparent from the Constitution, the Federal Rules, or the Clean Water Act itself -- to regard this type of proof as per se deficient for establishing standing in a Clean Water Act case. Citizens may thus rely on circumstantial evidence such as proximity to polluting sources, predictions of discharge influence, and past pollution to prove both injury in fact and traceability. This is what Wilson Shealy did. To require more would impose on Clean Water Act suits a set of singularly difficult evidentiary standards.

To deny standing to Shealy here would further thwart congressional intent by recreating the old system of water quality standards whose failure led to the enactment of the Clean Water Act in the first place. See, e.g., Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 903. An important reason for Congress' shift to end-of-pipe standards was to eliminate the need to address complex questions of environmental abatement and scientific traceability in enforcement proceedings. To have standing now turn on direct evidence of such things as the chemical composition and salinity of receiving waters

1109, 1112-13 (4th Cir. 1988) (defendant's failure to monitor and report effluent discharges as required by permit causes injury in fact to plaintiff's interests in protecting environmental integrity of and curtailing ongoing unlawful discharges into waterway).

would throw federal legislative efforts to control water pollution into a time warp by judicially reinstating the previous statutory regime in the form of escalated standing requirements. Courts would become enmeshed in abstruse scientific discussions as standing questions assumed a complicated life of their own. This danger is illustrated by this very case, where the in-depth discussion of control stations, macroinvertebrate sampling, and milligrams per kilogram has taken us far afield from the straightforward Clean Water Act issue of whether Gaston Copper has violated its permit limitations.

"[T]he law of Article III standing is built on a single basic idea -- the idea of separation of powers." Allen, 468 U.S. at 752. Courts must avoid infringing this principle either by reaching beyond jurisdictional limitations to decide abstract questions or by refusing to decide concrete cases that Congress wants adjudicated. This case presents a concrete controversy in which courts are left with no other choice but to effectuate Congress' clearly expressed language and intent. To bar the courthouse door to Shealy's claims of private injury would undermine the citizen suit provision of the Clean Water Act. We therefore reverse the judgment of the district court and remand this case for a determination of whether Gaston Copper has discharged pollutants in excess of its permit limits.

REVERSED AND REMANDED

NIEMEYER, Circuit Judge, concurring in the judgment and in the concurring opinion of Judge Luttig:

For the reasons that follow, I concur in the judgment and join Judge Luttig's concurring opinion.

The concept of constitutional standing lies at the heart of the judicial power conferred on courts by Article III of the Constitution. As the articulation of that standing requirement is relaxed, the scope of Article III power expands, moving it to a position where it could be exercised to resolve contests over legislation simply because citizens disagree with its interpretation. With a continuation of this trend, courts would ultimately become a super-legislative body, arbitrating the conflicts of the views of its citizenry generally.

Before the Supreme Court's recent decision in Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc., 120 S. Ct. 693 (2000), I would have affirmed the district court in this case because the plaintiffs, who expressed only a subjective belief of injury, have not shown that they "personally [have] suffered some actual or threatened injury as a result of the putatively illegal conduct of the defendant and that the injury fairly can be traced to the challenged action." Valley Forge Christian College v. Americans United for Separation of Church and State, Inc., 454 U.S. 464, 472 (1982) (citations and internal quotation marks omitted). These minimal requirements of Article III assured that legal issues would not be resolved "in the rarified atmosphere of a debating society." Id. The Supreme Court recognized in Valley Forge that federal courts are not "publicly funded forums for the ventilation of public grievances or the refinement of jurisprudential understanding." Id. at 473; see also Lujan v. Defenders of Wildlife, 504 U.S. 555, 559-60 (1992) (standing is "an essential and unchanging part of the case-or-controversy requirement of Article III" and the separation of powers).

As my concurrence in Judge Luttig's opinion indicates, I believe that the decision in Laidlaw represents a sea change in constitutional standing principles, and in view of that decision I agree that we are now required to reverse.

LUTTIG, Circuit Judge, with whom Judge Niemeyer joins, concurring in the judgment:

I concur in the judgment of the court, but not in its opinion. Through no fault of this court, the Supreme Court's recent decision in Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc., 120 S. Ct. 693 (2000), has rendered much of the discussion in today's opinion not merely unnecessary, but affirmatively confusing. Rather than persist in the fiction (as we do in the court's opinion) that Laidlaw was part of the fabric of standing jurisprudence at the time of argument in this case, or worse (as we also do) that that decision was merely an unexceptional reaffirmation of the Court's previous precedents, I would simply reverse the district court's judgment on the specific reasoning of the Supreme Court in Laidlaw and say little else. The unfortunate implication left by the court's failure to address the significant change in environmental standing doctrine worked by

the Supreme Court's recent decision in Laidlaw (and by the court's comfortable, but mistaken, assumption that the Supreme Court's decisions prior to Laidlaw themselves dictated the conclusion we reach today), is that the district court seriously erred in its application of the standing doctrine extant at the time that it ruled-- which it did not.

HAMILTON, Senior Circuit Judge, concurring in the judgment:

The Supreme Court's decision in Friends of the Earth, Inc. v. Laidlaw Env'tl. Servs. (TOC), Inc., 120 S. Ct. 693 (2000), has unnecessarily opened the standing floodgates, rendering our standing inquiry "a sham," id. at 715 (Scalia, J., dissenting). However, being bound by Laidlaw Env'tl. Servs., I concur in the court's judgment reversing the district court's judgment and remanding the case for a determination as to whether Gaston Copper has discharged pollutants in excess of its permit limits.