

Standing in *Monsanto Co. v. Geertson Seed Farms*: Using Economic Injury as a Basis for Standing When Environmental Harm is Difficult to Prove¹

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^{1.} This article is one of a series of explorations of possible extensions of modern standing doctrines. My other pieces are (1) *Should States Have Greater Standing Rights Than Ordinary Citizens?*: Massachusetts v. EPA's *New Standing Test for States*, 49 WM. & MARY L. REV. 1701 (2008) [hereinafter Mank, *State Standing*]; (2) *Standing and Future Generations: Does* Massachusetts v. EPA *Open Standing for Generations To Come?*, 34 COLUM. J. ENVTL. L. 1 (2009) [hereinafter Mank, *Future Generations*]; (3) *Standing and Statistical Persons: A Risk-Based Approach to Standing*, 36 ECOLOGY L. Q. 665 (2009) [hereinafter Mank, *Standing and Statistical Persons*]; (4) Summers v. Earth Island Institute *Rejects Probabilistic Standing, but a "Realistic Threat" of Harm Is a Better Standing Test*, 40 ENVTL. L. 89 (2010) [hereinafter Mank, *Summers*]; (5) *Revisiting the* Lyons *Den*: Summers v. Earth Island Institute's *Misuse of* Lyons' *"Realistic Threat" of Harm Standing Test*, ARIZ. ST. L.J. (forthcoming 2010); (6) Summers v. Earth Island Institute: *Its Implications for Future Standing Decisions*, ______ ENVTL. L. REP. _____ (forthcoming Oct. 2010).

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I. INTRODUCTION

To file suit in federal courts, Article III of the U.S. Constitution requires that a plaintiff must demonstrate "standing" by establishing that the defendant's actions have caused him an actual or imminent injury, and not merely a speculative or hypothetical injury that might occur someday.³ Many of the Supreme Court's important standing cases have involved environmental disputes.⁴ Most recently, in 2010, the Court again addressed standing in an environmental dispute, *Monsanto Co. v. Geertson Seed Farms*.⁵

^{3.} Lujan v. Defenders of Wildlife, 504 U.S. 555, 560–61 (1992); *see infra* Part I (discussing Article III standing requirements).

^{4.} See, e.g., Summers v. Earth Island Inst., 129 S. Ct. 1142 (2009); Massachusetts v. Envtl. Prot. Agency, 549 U.S. 497 (2007) [hereinafter *Massachusetts v. EPA*]; Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167 (2000); Bennett v. Spear, 520 U.S. 154 (1997); *Defenders*, 504 U.S. 555; Sierra Club v. Morton, 405 U.S. 727 (1972); see generally articles cited in Footnote 1.

^{5.} Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743 (2010).

In *Monsanto*, the Court did not announce a new standing doctrine. Nevertheless, the Court recognized that an environmental plaintiff may sue without proof of actual environmental harm if it can demonstrate that he or she may suffer economic losses from testing and mitigation measures related to a threatened harm.⁶ During the oral argument in *Monsanto*, Justice Antonin Scalia expressed skepticism that the plaintiffs could prove that the petitioners' sale of genetically modified alfalfa seed would cross-contaminate the plaintiffs' farms, which used conventional alfalfa seed.⁷ Yet he ultimately joined the majority opinion with, among others, Justice Ruth Bader Ginsburg, with whom he had disagreed in previous environmental standing decisions.⁸

Especially in cases involving complex environmental questions, plaintiffs have sometimes raised both claims of environmental harm and property loss as separate grounds to establish a personal injury sufficient for standing.⁹ In some cases, including *Monsanto*, a plaintiff's claim that a defendant's actions have caused him or her economic harm may be easier to prove than establishing an environmental injury.¹⁰ For example, although he has often demanded greater proof of environmental harm to establish standing than other members of the Court,¹¹ Justice Scalia, in his dissenting opinion in *Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc.*, was willing to consider the possibility that an environmental plaintiff could establish standing

10. See infra Part II.

^{6.} See Monsanto, 130 S. Ct. at 2755; see also infra Part II.C.

^{7.} See Transcript of Oral Argument at 29-31, Monsanto, 130 S. Ct. 2743 (No. 09-475); infra Part II.B.

^{8.} Justices Scalia and Ginsburg joined the *Monsanto* majority even though they had disagreed about standing issues in *Summers*, *Massachusetts v. EPA*, and *Laidlaw*.

^{9.} See, e.g., Massachusetts v. EPA, 549 U.S. at 522-23 (concluding climate change caused injury to Commonwealth of Massachusetts' property interest in coastal property); Laidlaw, 528 U.S. at 181-83 (claiming defendant's mercury discharges caused both aesthetic injuries to the environment and property losses); Duke Power Co. v. Carolina Envtl. Study Group, Inc., 438 U.S. 59, 72-74 (1978) (alleging nearby nuclear power plant caused both potential property losses to their homes and environmental harms to nearby lake); Maxwell L. Stearns, *From* Lujan to Laidlaw: A Preliminary Model of Environmental Standing, 11 DUKE ENVTL. L. & POL'Y F. 321, 382-84 (2001) (discussing allegations of property losses as the basis for standing in Duke Power and Laidlaw).

^{11.} Professor Robert Percival has criticized Justice Scalia for being hostile to environmental groups claiming standing. Professor Percival writes:

In a law review article written three years before he joined the Court, Justice Scalia boldly revealed his antipathy to environmental standing based on his ideological distaste for strict implementation of the environmental laws. In 1992, he authored both the Court's most restrictive environmental standing decision (*Lujan*)[, which]... questioned the constitutional authority of Congress to authorize certain citizen suits.

Robert V. Percival, Massachusetts v. EPA: *Escaping the Common Law's Growing Shadow*, 2007 SUP. CT. REV. 111, 116 (2008) (footnotes omitted).

without proof of environmental injury if he or she could show property loss from a threatened environmental injury.¹² By contrast, his dissenting opinion in Laidlaw rejected the plaintiffs' "reasonable concerns" about a threatened environmental injury as insufficient for standing.¹³ Based on his dissenting opinion in Laidlaw, the most plausible explanation for Justice Scalia's joining the majority opinion in Monsanto is that he concluded that the plaintiffs-respondents' claims of indirect economic harms were plausible even if he remained skeptical regarding their claims of potential environmental harms from the possibility of cross-contamination of seeds.¹⁴ In future cases, the Monsanto decision may be cited as precedent granting standing to environmental plaintiffs who can make a plausible showing of economic injury even in cases where it may be difficult to prove an actual environmental harm to the plaintiffs.¹⁵

II. A BRIEF INTRODUCTION TO STANDING

A. The Three Part Constitutional Standing Test

Article III of the U.S. Constitution does not specifically require that a plaintiff filing suit in federal court demonstrate "standing" to sue, but it does limit the role of the federal judiciary to "cases" and "controversies."¹⁶ The Supreme Court has interpreted Article III to bar suits in federal courts seeking advisory opinions regarding hypothetical disputes that might occur someday.¹⁷ The Court in *Lujan v. Defenders of Wildlife* summarized prior cases and refined the Court's three-part standing test requiring a plaintiff suing in a federal court to prove he has suffered: (1) an actual or imminent concrete injury in fact, rather than a hypothetical or speculative injury; (2) traceable to the defendant's

^{12.} *Laidlaw*, 528 U.S. at 199-200 (Scalia, J., dissenting); Stearns, *supra* note 9, at 382-84 (discussing Justice Scalia's dissenting opinion in *Laidlaw* and how he addressed a plaintiff's claim of lost property value); *infra* Part I.C.

^{13.} See Laidlaw, 528 U.S. at 198-202 (criticizing majority opinion's "reasonable concerns" test for standing because standing requires proof of actual injury to plaintiff); *infra* Part I.C.

^{14.} See infra Part II.C.

^{15.} Id.

^{16.} Lujan v. Defenders of Wildlife, 504 U.S. 555, 559-60 (1992).

^{17.} DaimlerChrysler Corp. v. Cuno, 547 U.S. 332, 340 (2006) (observing Supreme Court has interpreted Constitution's Article III to prohibit judiciary from issuing advisory opinion); FEC v. Akins, 524 U.S. 11, 23–24 (1998); Jonathan Remy Nash, *Standing and the Precautionary Principle*, 108 COLUM. L. REV. 494, 506 (2008); Mank, *Standing and Statistical Persons*, *supra* note 1, at 679-80.

challenged actions; and that is (3) capable of redress by a favorable judicial decision. 18

In some circumstances, a threatened injury may constitute an imminent injury sufficient to meet the injury test for standing if the harm is likely to occur in the relatively near future. In *Babbitt v. United Farm Workers National Union*,¹⁹ the Court stated, "[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."²⁰ The *Defenders* Court's imminent injury test is similar to *Babbitt's* approach to threatened injuries.²¹ The imminent injury test, however, fails to provide a clear standard for defining what is a sufficient probability of a risk to a plaintiff or how quickly it must result to the plaintiff to meet the imminence prong of the standing test.²² For instance, the Ninth Circuit has interpreted the imminent standing test to include an increased risk of harm.²³ The Ninth Circuit's approach to the imminence test is arguably implicitly overruled by the Supreme Court's subsequent decision in *Summers v. Earth Island Institute*, which is discussed in Subpart E.²⁴

B. Procedural Standing

The Supreme Court has applied a more relaxed standing test for plaintiffs who assert that the government has violated a procedural right guaranteed in a statute.²⁵ In footnote seven of *Defenders*, Justice Scalia's majority opinion stated that plaintiffs who may suffer a concrete injury resulting from a procedural violation by the government are entitled to a more relaxed application of the redressability and the immediacy standing requirements because remedying the procedural violation by,

^{18.} Defenders, 504 U.S. at 560-61; Bradford C. Mank, Standing and Global Warming: Is Injury to All Injury to None?, 35 ENVTL. L. 1, 23-24 (2005) [hereinafter Mank, Global Warming].

^{19.} Babbitt v. United Farm Workers Nat'l Union, 442 U.S. 289 (1979).

^{20.} *Id.* at 298 (internal quotation marks omitted) (quoting Pennsylvania v. West Virginia, 262 U.S. 553, 593 (1923)); *see also* Valley Forge Christian Coll. v. Ams. United for Separation of Church and State, Inc., 454 U.S. 464, 472 (1982) (reasoning that a threatened injury may satisfy standing requirement); Gladstone, Realtors v. Vill. of Bellwood, 441 U.S. 91, 99 (1979); Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 204 F.3d 149, 160 (4th Cir. 2000) (*en banc*) ("The Supreme Court has consistently recognized that threatened rather than actual injury can satisfy Article III standing requirements.").

^{21.} See Defenders, 504 U.S. at 560-61 (1992).

^{22.} See Mank, Future Generations, supra note 1, at 39; Mank, Standing and Statistical Persons, supra note 1, at 684.

^{23.} Ecological Rights Found. v. Pac. Lumber Co., 230 F.3d 1141, 1151 (9th Cir. 2000) (interpreting "imminent" standing test to include an increased risk of harm).

^{24.} See Summers v. Earth Island Institute, 129 S. Ct. 1142, 1149-50 (2009); Mank, Summers, supra note 1, at 100, 104-05.

^{25.} Mank, *Future Generations*, *supra* note 1, at 35-39.

for example, providing for additional public notice and comment, may not change the substantive decision by the government.²⁶ Justice Scalia limited footnote seven standing to those plaintiffs who have or are sufficiently likely to suffer a concrete injury from the government's procedural error.²⁷ According to footnote seven, a plaintiff who lives adjacent to a proposed dam has standing to challenge the government's alleged failure to follow statutory procedures requiring an environmental assessment of the dam's potential effects pursuant to the National Environmental Policy Act²⁸ (NEPA), but "persons who live (and propose to live) at the other end of the country from the dam" do not have "concrete interests affected" and therefore do not have standing to challenge a procedural violation.²⁹ While Justice Scalia did not expressly address the issue of what type of injuries a person living next to a dam suffers or may suffer to provide the injury necessary for standing, one possible form of harm to the hypothetical plaintiff living adjacent to the dam is the loss of property values if the dam is built.³⁰

A plaintiff normally must establish standing by showing that it is "likely" that a concrete injury that he has personally suffered is traceable to the defendant's actions and would be redressed by a favorable judicial decision.³¹ However, a plaintiff claiming that the government has violated a procedural requirement need not prove that the government's actions will cause him imminent harm, or that a judicial remedy requiring the government to comply with mandated procedural requirements will actually prevent the government from building the proposed project or taking the proposed action that would cause him some concrete harm.³² For example, a NEPA plaintiff is entitled to a remedy requiring the government to follow NEPA's procedural requirements even if it is uncertain that a judicial order requiring the government to conduct an environmental impact statement pursuant to

^{26.} *Defenders*, 504 U.S. at 572 n.7; *see* Mank, *Global Warming*, *supra* note 18, at 35-36; *see also* Mank, *States Standing*, *supra* note 1, at 1716.

^{27.} Defenders, 504 U.S. at 572-73 nn.7 & 8; see also infra note 29 and accompanying text.

^{28. 42} U.S.C. §§ 4321-47 (1970).

^{29.} Defenders, 504 U.S. at 572-73 nn.7 & 8 ("we do not hold that an individual cannot enforce procedural rights; he assuredly can, so long as the procedures in question are designed to protect some threatened concrete interest of his that is the ultimate basis of his standing."); William W. Buzbee, *Citizen Suits and the Future of Standing in the 21st Century: From* Lujan to Laidlaw and Beyond: Standing and the Statutory Universe, 11 DUKE ENVTL. L. & POL'Y F. 247, 257 (2001); Mank, *States Standing, supra* note 1, at 1716.

^{30.} See Kimberly Brown, Justiciable Generalized Grievances, 68 MD. L. REV. 221, 261-62 (2008).

^{31.} Defenders, 504 U.S. at 560-61.

^{32.} Id. at 572 n.7; Mank, Global Warming, supra note 18, at 35-36 and n.240.

NEPA will lead the government to change its substantive decision to build a dam.³³

In Massachusetts v. EPA, the Court endorsed a very relaxed approach to whether a remedy is sufficient for a plaintiff alleging a procedural violation.³⁴ The Court stated that procedural rights litigants need only demonstrate "some possibility" that their requested remedy would redress a procedural injury: "[w]hen a litigant is vested with a procedural right, that litigant has standing if there is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant."³⁵ In Massachusetts v. EPA, the Court rejected the argument by the U.S. Environmental Protection Agency (EPA) that the petitioners had to prove that U.S. courts could remedy the global problem of climate change, and instead determined that the petitioners satisfied the redressability portion of the standing test because a court order requiring EPA to regulate emissions from new vehicles could "slow or reduce" global climate change.³⁶ The Massachusetts v. EPA decision's use of the "some possibility" test for redressability appears to be applicable to all procedural plaintiffs.³⁷

Prior to *Massachusetts v. EPA* and *Summers*, the U.S. Circuit Courts disagreed about the burden of proof a procedural rights plaintiff must meet to demonstrate that she is likely to be harmed by the agency's action.³⁸ For example, the D.C. Circuit uses a stringent "substantial

Fla. Audubon Soc'y v. Bentsen, 94 F.3d 658, 665-72 (D.C. Cir. 1996) 38. (applying strict four-part test for standing in procedural rights case, including requiring a procedural rights plaintiff to demonstrate a particularized injury, that "a particularized environmental interest of theirs that will suffer demonstrably increased risk" and that it is "substantially probable" that the agency action will cause the demonstrable injury alleged by the plaintiff); but see Citizens for Better Forestry v. United States Dept. of Agric., 341 F.3d 961, 972 (9th Cir. 2003) (rejecting Florida Audubon's standing test for procedural rights plaintiffs and stating that such plaintiffs "need only establish 'the reasonable probability of the challenged action's threat to [their] concrete interest.""); Comm. to Save the Rio Hondo v. Lucero, 102 F.3d 445, 447-52 (10th Cir. 1996) (disagreeing with *Florida Audubon*'s "substantial probability" test for procedural rights plaintiffs and instead adopting a test that plaintiff must establish an "increased risk of adverse environmental consequences" from the alleged failure to follow NEPA); Mank, Global Warming, supra note 18, at 45-63 (discussing split in circuits about how to apply footnote seven standing test in NEPA cases); Mank, *States Standing, supra* note 1, at 1720 (same); Zachary D. Sakas, Footnotes, Forests, and Fallacy: An Examination of the Circuit Split Regarding Standing in Procedural Injury-Based Programmatic Challenges, 13 U. BALT.

^{33.} *Defenders*, 504 U.S. at 572 n.7; Mank, *Global Warming*, *supra* note 18, at 35-36 & n.240.

^{34.} Massachusetts v. EPA, 549 U.S. 497, 518 (2007).

^{35.} Id.; see also Mank, Standing and Statistical Persons, supra note 1, at 674.

^{36.} Massachusetts v. EPA, 549 U.S. at 525; see also Mank, Standing and Statistical Persons, supra note 1, at 675.

^{37.} *Massachusetts v. EPA*, 549 U.S. at 517-18; Mank, *States Standing, supra* note 1, at 1727 (arguing the "some possibility" standard in *Massachusetts v. EPA* applies to all procedural plaintiffs).

probability" test, but the Ninth Circuit applies a more lenient "reasonable probability" test.³⁹ The Supreme Court bears much of the blame for this confusion because the Defenders decision did not clearly explain in footnote seven the degree to which redressability and immediacy requirements for standing are waived or relaxed in procedural rights cases, the plaintiff's burden of proof to establish standing in a procedural rights case, or how to define what is a procedural right.⁴⁰ For example, in the dam hypothetical, the immediacy requirement arguably should be eliminated for plaintiffs because they have no control over how quickly the government will build the dam, but the Defenders decision never expressly addresses that issue.⁴¹ Nor did footnote seven provide any clear guidelines regarding the extent courts are to relax or eliminate redressability requirements for procedural rights plaintiffs.⁴² Because the Court has left many questions unanswered as to the extent to which courts in procedural rights cases should relax either the imminence or redressability requirements for standing, courts have struggled to apply the Court's standing test, especially in complex environmental cases like

39. See Florida Audubon, 94 F.3d at 665-72 (applying the D.C. Circuit's "substantial probability" test); but see Citizens for Better Forestry, 341 F.3d at 972 (applying the Ninth Circuit's "reasonable probability" test); see also Mank, Global Warming, supra note 18, at 45-63; see also Sakas, supra note 38, at 192-204; see also Bertagna, supra note 38, at 461-64; see also Smith, supra note 38, at 643-51.

J. ENVTL. L. 175, 192–204 (2006) ("The Ninth and Seventh Circuits have held that a plaintiff need not have a claim that is site-specific, while the D.C., Eighth, and Eleventh Circuits have created a stricter standing doctrine where a site-specific injury is necessary" in procedural injury challenges to programmatic rules); Blake R. Bertagna, Comment, "Standing" Up for the Environment: The Ability of Plaintiffs To Establish Legal Standing To Redress Injuries Caused by Global Warming, 2006 B.Y.U. L. REV. 415, 461-64 (2006) (discussing split between Ninth and District of Columbia Circuits on procedural standing test); Adrienne Smith, Note, Standing and the National Environmental Policy Act: Where Substance, Procedure, and Information Collide, 85 B.U. L. REV. 633, 643-51 (2005) (same).

^{40.} See Brian J. Gatchel, Informational and Procedural Standing after Lujan v. Defenders of Wildlife, 11 J. LAND USE & ENVTL. L. 75, 92-108 (1995) (criticizing footnote seven in Defenders for failing to explain to what extent immediacy and redressability standing requirements are relaxed or eliminated for procedural rights plaintiffs); Mank, Global Warming, supra note 18, at 36-37 & n.244 (same and citing commentators); Mank, States Standing, supra note 1, at 1718-20 (same); Cass R. Sunstein, What's Standing After Lujan? Of Citizen Suits, "Injuries," and Article III, 91 MICH L. REV. 163, 208, 225-26 (1992) (same); Christopher T. Burt, Comment, Procedural Injury Standing After Lujan v. Defenders of Wildlife, 62 U. CHI. L. REV. 275, 285 (1995) ("Lujan's procedural injury dicta is not without its problems, however. At best, it is vague and provides little guidance for prospective plaintiffs and the lower courts."); Smith, supra note 38, at 641 (same).

^{41.} Gatchel, *supra* note 40, at 93-94 & 99-100; Douglas Sinor, *Tenth Circuit Survey: Environmental Law*, 75 DENV. U. L. REV. 859, 880 (1998).

^{42.} Gatchel, *supra* note 40, at 100-06 & 108; Sinor, *supra* note 41, at 880 (criticizing footnote seven because it "is confusing and raises more questions than it answers"); Mank, *States Standing, supra* note 1, at 1719.

the *Monsanto* decision. In *Monsanto*, the Court concluded that a "substantial risk of gene flow injures respondents in several ways," but never specifically addressed whether that risk was "imminent," as required by the Court's standing test.⁴³ Implicitly, the Court's conclusion that "substantial risk of gene flow injures respondents in several ways" probably means that the majority concluded that the respondents suffered an actual or imminent injury, but the Court's reasoning on this issue is not clear.

C. "Reasonable Concerns" Standing in Avoided Recreational Activities Cases

The Court has relaxed standing requirements in certain cases, in addition to those cases involving procedural rights. In Laidlaw, the Court, in an opinion by Justice Ruth Bader Ginsburg, implicitly adopted a probabilistic standing analysis whenever a plaintiff alleges that he avoids recreational activities because of "reasonable concerns" about pollution.44 The plaintiffs in Laidlaw alleged that they avoided recreational activities in a river because of the defendant's illegal discharge of toxic mercury into the river.⁴⁵ Despite the plaintiffs' failure to prove that the defendant's mercury discharges caused harm to the environment or their health, the Court concluded that the plaintiffs' affidavits demonstrated that they had avoided recreational use of a river because of their "reasonable concerns" about the mercury's impact on their health, and thus were sufficient for standing.⁴⁶ Justice Scalia, however, in his dissenting opinion, which was joined by Justice Thomas. argued that to establish standing, usually an actual injury to both the plaintiff and the environment must be proven, rather than mere concerns about possible future injuries.⁴⁷

The *Laidlaw* decision did not require the plaintiffs to prove that either they or the environment had suffered an actual injury or were likely to suffer an imminent injury in the future; it was sufficient for standing that plaintiffs demonstrated they had reasonable concerns that

^{43.} See infra Part II.

^{44.} Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167, 181-83 (2000); Robin Kundis Craig, *Removing "The Cloak of a Standing Inquiry": Pollution Regulation, Public Health, and Private Risk in the Injury-in-Fact Analysis*, 29 CARDOZO L. REV. 149, 181-82 (2007); Mank, *Future Generations, supra* note 1, at 40-41.

^{45.} Laidlaw, 528 U.S. at 181-83; see also Craig, supra note 44, at 181; Mank, Future Generations, supra note 1, at 40-41.

^{46.} Laidlaw, 528 U.S. at 181-85; see also Craig, supra note 44, at 181-83; Mank, Future Generations, supra note 1, at 40-41.

^{47.} Laidlaw, 528 U.S. at 198-201 (Scalia, J., dissenting).

motivated them to alter their recreational activities.⁴⁸ The Court declared that in environmental cases "the relevant showing for purposes of Article III standing . . . is not injury to the environment but injury to the plaintiff."⁴⁹ The plaintiffs established an adequate injury for Article III standing because their reasonable concerns about the harmfulness of the defendant's mercury discharges caused them to avoid recreational use of the river.⁵⁰ The Court equated the plaintiffs' avoidance of recreational activities or diminished aesthetic enjoyment of the river to a concrete injury without any proof of actual harm to them or the environment.⁵¹ The plaintiffs' avoidance of recreational activities or lessened aesthetic enjoyment of the river was an adequate concrete injury for the plaintiffs to establish standing, so the Court did not address the more perplexing issue of whether the mercury pollution was sufficiently injurious to the plaintiffs or the environment to establish a "concrete" injury for standing.⁵²

Justice Scalia, joined by Justice Thomas,⁵³ reasoned in his dissenting opinion that "[i]n the normal course" plaintiffs must demonstrate injury both to the environment and to themselves to have standing.⁵⁴ Justice Scalia stated, "[o]ngoing 'concerns' about the environment are not enough, for 'it is the *reality* of the threat of repeated injury that is relevant to the standing inquiry, not the plaintiff's subjective apprehensions."⁵⁵ Because the plaintiffs had failed to demonstrate any harm to their personal health or to the environment, Justice Scalia concluded that their standing claims must fail.⁵⁶

The *Laidlaw* decision understandably focused on the potential environmental and health harms from Laidlaw's mercury discharges, but there was also some evidence of loss of property values in the case. While the other members of the plaintiff organizations submitted evidence that they had stopped using the North Tyger River for recreational purposes because of their fears about Laidlaw's mercury discharges,⁵⁷ CLEAN member Gail Lee "attested that her home, which is

^{48.} *Id.* at 183-85 (majority opinion); *see* Craig, *supra* note 44, at 181; Mank, *Future Generations*, *supra* note 1, at 40-41; *but see Laidlaw*, 528 U.S. at 198-201 (Scalia, J., dissenting) (arguing that plaintiffs should have to prove that defendant's activities actually harmed the environment).

^{49.} Laidlaw, 528 U.S. at 181.

^{50.} Id. at 183-85.

^{51.} *Id*.

^{52.} Craig, *supra* note 44, at 181-83; Mank, *Standing and Statistical Persons, supra* note 1, at 686.

^{53.} *Laidlaw*, 528 U.S. at 171, 198.

^{54.} Id. at 198-99 (Scalia, J., dissenting).

^{55.} Id. at 199 (quoting Los Angeles v. Lyons, 461 U.S. 95, 107, n. 8 (1983)).

^{56.} Id. at 198-99.

^{57.} Id. at 181-83 (majority opinion).

near Laidlaw's facility, had a lower value than similar homes located further from the facility, and that she believed the pollutant discharges accounted for some of the discrepancy."⁵⁸ Regardless of whether there was actual harm from the mercury, Lee's claim that concerns about the mercury discharges lowered her property's value is a type of claimed harm that is generally justiciable in a traditional common law suit, unlike the environmental claims in the same case.⁵⁹ Even in the absence of any actual environmental harm, a plausible suit could be based on the theory that public perception of environmental harm could lower a property's value and having a court either enter injunctive relief or award civil damages for the amount of the loss could redress the loss in value.⁶⁰

Justice Scalia acknowledged that Lee's loss of property value claim was different from the environmental claims in the case, although he ultimately found Lee's allegations insufficient for standing.⁶¹ He stated that it was "perhaps possible" for a plaintiff to be injured even if the environment was not, for instance, by a loss of property value.⁶² Justice Scalia cited the Court's decision in Gladstone, Realtors v. Village of $Bellwood^{63}$ for the principle that "standing could be established by 'convincing evidence' that a decline in real estate values was attributable to the defendant's conduct."⁶⁴ He found, however, that the Laidlaw plaintiffs had failed to meet their "burden of articulating and demonstrating" any property losses or personal injuries from the defendant's conduct.⁶⁵ Justice Scalia believed that the plaintiffs had made only "bald assertions" about "declining home values" and had failed to provide evidence that Laidlaw's mercury violations were responsible for any such decline in the value of their homes.⁶⁶ He probably found Lee's assertion that Laidlaw's pollution had caused "some of the discrepancy" in the lower value of her home compared to other homes farther from the river too vague and attenuated to demonstrate an injury for standing purposes.⁶⁷ Nevertheless, Justice Scalia's willingness in his Laidlaw dissent to at least consider the

^{58.} *Id.* at 182-83.

^{59.} Stearns, *supra* note 9, at 382-83.

^{60.} *Id.* In *Laidlaw*, the defendant had ceased polluting, but in that type of case a judge could impose "civil damages of a sufficient magnitude to prevent a recurrence of voluntarily ceased activity." *Id.* at 383.

^{61.} Laidlaw, 528 U.S. at 199-200 (Scalia, J., dissenting); Stearns, supra note 9, at 382.

^{62.} Laidlaw, 528 U.S. at 199 (Scalia, J., dissenting).

^{63.} Gladstone, Realtors v. Vill. of Bellwood, 441 U.S. 91 (1979).

^{64.} *Laidlaw*, 528 U.S. at 200 (Scalia, J., dissenting) (quoting *Gladstone*, 441 U.S. at 115).

^{65.} Id. at 199-200.

^{66.} *Id.* at 200.

^{67.} Stearns, *supra* note 9, at 384.

possibility that standing could be based on the plaintiffs' loss of property value alone is critical to understanding the standing analysis in *Monsanto*.⁶⁸ Justice Samuel Alito's majority opinion in *Monsanto* essentially argued that even if the plaintiffs could not prove an actual injury from cross-contamination, they had suffered economic losses from the perception that their alfalfa might be affected by cross-contamination.⁶⁹

D. Massachusetts v. EPA: Controversy Over Property Damage in the Context of Climate Change

In Massachusetts v. EPA,⁷⁰ the Court recognized that the Commonwealth of Massachusetts had standing to petition the U.S. EPA regarding greenhouse gases (GHGs) that contribute to climate change in part because rising sea levels, exacerbated by global warming, would harm the Commonwealth's property interest in its coastline.⁷¹ The Massachusetts v. EPA decision, however, was a rare decision in which the evidence of property losses did not establish a consensus among the members of the Court that the petitioners had standing. Chief Justice Roberts' dissenting opinion argued that Massachusetts could not establish standing despite the Commonwealth's allegations of property damage because the Commonwealth could not establish the required particularized harm necessary for standing.⁷² He further reasoned: (1) that the injuries allegedly resulting from climate change are generalized to the entire world and are not specific to any single plaintiff; (2) that the estimates of future harms are too vague since they are based on unreliable computer model estimates; and (3) that the Commonwealth's property losses to its coastline were essentially the same as any private property owner.⁷³ Therefore, Chief Justice Roberts concluded that Massachusetts should not have been given special standing status in its role as a state suing pursuant to the parens patriae doctrine.⁷⁴

74. *Id.* at 539.

^{68.} See infra Part II.C.

^{69.} See infra Part II.C.

^{70.} Massachusetts v. EPA, 549 U.S. 497 (2007).

^{71.} Id. at 522-23.

^{72.} Id. at 540-42 (Roberts, J., dissenting).

^{73.} See id. at 539 (concluding Commonwealth of Massachusetts has failed to demonstrate standing despite allegations of property losses to coastline because those harms are as an owner rather than as a quasi-sovereign suing as *parens patriae*); *see also id.* at 540-41 (stating "The very concept of global warming seems inconsistent with this particularization requirement."); *see also id.* at 541-42 (questioning property losses based upon computer model estimates).

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The majority in Massachusetts v. EPA reasoned that the fact that climate change affects large numbers of persons did not diminish Massachusetts' particularized injury as a landowner of coastal property and, therefore, concluded that the Commonwealth had established the requisite injury for standing.⁷⁵ The Court concluded that Massachusetts' coastline had already been harmed during the twentieth century as global sea levels rose somewhere between 10 and 20 centimeters because of climate warming largely resulting from human-caused increases in GHGs.⁷⁶ The majority appeared to treat the Commonwealth of Massachusetts at least in some respects as a property owner suffering harm as a result of climate change. The decision stated, "Because the Commonwealth 'owns a substantial portion of the state's coastal property,'... it has alleged a particularized injury in its capacity as a landowner."⁷⁷ Next, Justice Stevens' opinion also considered the likely significant increases in sea levels and consequent coastline losses to Massachusetts predicted through the year 2100 by computer models.⁷⁸

The Massachusetts v. EPA decision remains somewhat confusing because the Court seemed to justify standing for the Commonwealth based on both its special status as a state and also that its ownership of coastline property was threatened by rising sea levels.⁷⁹ First, the Court announced a new standing doctrine by holding that states are entitled to a more lenient standing analysis when they sue pursuant to the ancient parens patriae doctrine as quasi-sovereigns seeking to protect the health and natural resources of their citizens.⁸⁰ Additionally, however, the Court appeared to suggest that Massachusetts had standing because Massachusetts "alleged a particularized injury in its capacity as a landowner" when it claimed a significant portion of the Massachusetts coastline was being affected by rising sea levels caused by global warming.⁸¹ Commentators have debated whether the Court in Massachusetts v. EPA based its standing analysis on the Commonwealth's quasi-sovereign interests in its natural resources or its

^{75.} *Id.* at 521-23 (majority opinion).

^{76.} Id. at 522.

^{77.} Id.

^{78.} Id.

^{79.} See Mank, State Standing, supra note 1, at 1727-34, 1746-47 (arguing that the *Massachusetts v. EPA* decision created uncertainty because it simultaneously implied that Massachusetts was entitled to special standing status as a state and also that it met traditional standing requirements such as injury to its property interests).

^{80.} See Massachusetts v. EPA, 549 U.S. at 518-20 and n.17; Mank, State Standing, supra note 1, at 1727-29.

^{81.} Massachusetts v. EPA, 549 U.S. at 522-23; Mank, State Standing, supra note 1, at 1747.

proprietary interest as a landowner.⁸² The decision did not explain whether a private property owner who owned a similarly large portion of coastline would be entitled to standing.⁸³ Accordingly, it is unclear whether *Massachusetts v. EPA* based standing on states rights alone or on proprietary property rights as well.⁸⁴

Chief Justice Roberts' dissenting opinion made several arguments against granting standing.⁸⁵ The arguments include, most notably, his view that generalized grievances like global warming are better addressed by the political branches rather than the judicial branch.⁸⁶ Next, he questioned the use of the parens patriae doctrine to loosen standing requirements in general and especially in a suit against the federal government, because the federal government stands in the position of parens patriae to protect the interests of its citizens, including the citizens of Massachusetts.⁸⁷ Most interestingly for the purposes of this essay, Chief Justice Roberts criticized the majority's reasoning as flawed because the majority applied both a more lenient standing analysis to Massachusetts because of its quasi-sovereign interest as a state and also the traditional standing test to conclude that Massachusetts had been injured as landowner.⁸⁸ He stated that the Court, even in the context of parens patriae standing, had treated a state's ownership of land "as a 'nonsovereign interes[t]' because a State 'is likely to have the same interests as other similarly situated proprietors.""89

Chief Justice Roberts opined that Massachusetts' claim that it had been injured as a landowner must fail as a generalized grievance inappropriate for judicial resolution because a landowner must allege a concrete and particularized injury, but, to the contrary, "[t]he very concept of global warming seems inconsistent with this particularization requirement."⁹⁰ Furthermore, he contended that Massachusetts failed to

^{82.} Compare Robert A. Weinstock, *The Lorax State: Parens Patriae and the Provision of Public Goods*, 109 COLUM. L. REV. 798, 819-24 (2009) (arguing that the *Massachusetts v. EPA* decision properly separated quasi-sovereign and proprietary interests of Massachusetts) with Mank, *State Standing, supra* note 1, at 1727-34, 1746-47, 1758, 1762 n.348 (arguing that the *Massachusetts v. EPA* decision sometimes blurred the line between Massachusetts' quasi-sovereign and other interests, including proprietary property interests, and that coastal property can be seen as possessing both proprietary and quasi-sovereign interests).

^{83.} Mank, State Standing, supra note 1, at 1734.

^{84.} *Id*.

^{85.} Massachusetts v. EPA, 549 U.S. at 535 (Roberts, J., dissenting).

^{86.} Id.

^{87.} Id. at 536-40.

^{88.} Id. at 539.

^{89.} *Id.* (quoting Alfred L. Snapp & Son, Inc. v. Puerto Rico *ex rel.* Barez, 458 U.S. 592, 601 (1982)).

^{90.} *Id.* at 540-41.

prove an actual or imminent injury, as opposed to a hypothetical or conjectural injury, because there was no proof in the petitioners' evidence of an "actual loss of Massachusetts coastal land from 20th century global sea level increases."⁹¹ Moreover, Chief Justice Roberts ridiculed the use of unreliable computer models to predict coastline losses for Massachusetts in the year 2100 in light of the Court's requirement that a petitioner prove an "imminent" injury.⁹²

Injuries from climate change, including property losses, raise more controversy about standing, because they arguably affect the entire world population rather than target a specific individual. If climate change affects all persons equally, then arguably its injuries are better addressed by political actions addressing collective change, including legislation or international treaties, as Chief Justice Roberts suggested in his dissenting Conversely, because climate change does affect some opinion. individuals more than others, including those owning vulnerable coastal policy, judicial resolution of those individualized injuries is appropriate and standing should be recognized for those who can demonstrate some type of special injury different from the general harms caused by climate change. The Massachusetts v. EPA majority opinion recognized that states that suffer individualized injuries from climate change have standing to sue, but avoided the issue of whether individuals who suffer individualized injuries from climate change have standing to sue in Article III federal courts.

E. Summers v. Earth Island Institute

In *Summers v. Earth Island Institute*, Justice Scalia authored the majority opinion in which the U.S. Supreme Court rejected the concept of organizational standing based upon the statistical probability that some members of a plaintiff organization will likely be harmed in the near future by the defendant's future actions.⁹³ The Court held that the plaintiff organizations failed to establish that they would suffer an "imminent" injury necessary for standing to sue in federal courts because the plaintiff organizations could not prove the specific places and times when the Defendant U.S. Forest Service's (Service) allegedly illegal policy of selling fire-damaged timber without public notice and comment would harm the plaintiff organizations' members.⁹⁴ In its *Summers*

^{91.} Id. at 541-42.

^{92.} *Id.* at 542.

^{93.} Summers v. Earth Island Institute, 129 S. Ct. 1142, 1151-53 (2009). Justice Scalia's majority opinion was joined by Chief Justice Roberts and Justices Kennedy, Thomas and Alito. *Id.* at 1146. Justice Breyer's dissenting opinion was joined by Justices Stevens, Souter and Ginsburg. *Id.* at 1153.

^{94.} *Id.* at 1150-53.

decision, the Supreme Court for the first time specifically addressed the question of probabilistic standing based on potential future injuries to an organization's members.⁹⁵ Several environmental organizations challenged the government's sales as harming their members.⁹⁶ The largest membership organization among the plaintiffs, the Sierra Club, asserted in its Complaint that it has more than 700,000 members nationwide and, therefore, that it is likely that the Service's future application of its challenged regulations would harm at least one of its members.⁹⁷

Justice Scalia's majority opinion rejected the plaintiffs' probabilistic standing argument because "[t]his novel approach to the law of organizational standing would make a mockery of our prior cases, which have required plaintiff-organizations to make specific allegations establishing that at least one identified member had suffered or would suffer harm."98 He maintained that a court cannot rely on an organization's general assertions about its members' activities and that the Court's precedent required an organizational member to file an individual affidavit confirming that he or she uses a specific site that the government is affecting and that his or her recreational interests will harmed by the government's alleged failure to comply with legal requirements.⁹⁹ Because federal courts have an independent duty to assess whether standing exists even if no party challenges standing, the Court reasoned that an Article III court may not accept a plaintiff organization's assertions that some of its members will probably be harmed by a challenged activity.¹⁰⁰ A court must verify that standing exists by examining affidavits from individual members that have used particular government lands and have suffered an injury caused by the challenged activity.¹⁰¹ Justice Scalia reasoned, "[w]hile it is certainly possible-perhaps even *likelv*-that one individual will meet all of these [standing] criteria, that speculation does not suffice."¹⁰²

Unlike the plaintiffs in *Laidlaw*, the plaintiffs in *Summers* had no possible basis to allege economic harm. However, if nearby property

^{95.} Mank, Standing and Statistical Persons, supra note 1 at 748.

^{96.} *Summers*, 129 S. Ct. at 1147, 1151; *accord id.* at 1154 (Breyer, J., dissenting) (listing the membership size of the various plaintiff organizations).

^{97.} *Id.* at 1151 (quoting *id.* at 1154 (Breyer, J., dissenting) (listing the membership size of the various plaintiff organizations) (quoting Corrected Complaint for Declaratory and Injunctive Relief ¶ 12, at 34, Earth Island Institute v. Pengilly, 376 F. Supp. 2d 994 (E.D. Cal. 2005)).

^{98.} Id.

^{99.} Id. at 1151-52.

^{100.} Id.

^{101.} Id.

^{102.} Id. at 1152 (emphasis added).

owners had alleged that the salvage sales by the Service would lower the owners' property values, then the Court might have found such an allegation sufficient for standing even though the property owners could not in those circumstances prove any direct physical or environmental injury. If an expert witness, an appraiser for instance, testified that the sales lowered nearby property values, then, following Justice Scalia's suggestion in his *Laidlaw* dissent, that economic injury might be sufficient even if none of the property owners had actually sold his or her property for a loss.¹⁰³

III. THE MONSANTO DECISION

A. The National Environmental Policy Act and Injunctive Relief in Monsanto

In *Monsanto*, the key issue was whether the government should authorize the sale and use of Roundup® Ready Alfalfa (RRA), a variety of alfalfa that has been genetically engineered to tolerate glyphosate, which is the active ingredient of the herbicide Roundup®.¹⁰⁴ Opponents of RRA argued that it could contaminate alfalfa seeds used by conventional and organic alfalfa farmers who did not want to use RRA, pose dangers to surrounding ecosystems, and reduce the genetic biodiversity of crops.¹⁰⁵ Although human beings do not usually eat alfalfa directly, American farmers grow over 20 million acres of the crop each year as feedstock for beef and dairy cattle, lambs, and pigs, making alfalfa economically important to the U.S.¹⁰⁶ More broadly, genetically modified seeds now produce at least seventy percent of the food in U.S.

^{103.} *See* Stearns, *supra* note 9, at 382-84 (discussing allegations of property loss as a basis for standing in environmental cases).

^{104.} Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743, 2750 (2010); *see also* Allison M. Straka, Casenote, Geertson Seed Farms v. Johanns: *Why Alfalfa is Not the Only Little Rascal for Bio-agriculture Law*, 21 VILL. ENVTL. L.J. 383, 385 (2010) (discussing the use of Roundup Ready Alfalfa to tolerate glyphosate herbicide that kills weeds without harming the alfalfa).

^{105.} There has been controversy about the safety of genetically modified seeds and crops. Proponents of genetically modified seeds and crops argue that they can produce more reliable yields because they are more resistant to pests and diseases. *See* Straka, *supra* note 104, at 383 & n.4 (citing articles favoring genetically modified crops). Opponents contend that genetically modified seeds and crops can pose dangers to surrounding ecosystems and genetic biodiversity. *See Straka, supra* note 104, at 383 & n.5-7 (summarizing arguments of opponents of genetically modified crops); *see also* Rebecca Bratspies, *Some Thoughts on the American Approach to Regulating Genetically Modified Organisms*, 16 KAN. J.L. & PUB. POL'Y 393, 394, 404 (2007) (same).

^{106.} Straka, *supra* note 104, at 401.

grocery stores and, therefore, the regulation of such seeds is an issue of great importance.¹⁰⁷

The Plant Protection Act (PPA) empowers the Secretary of the U.S. Department of Agriculture (USDA) to issue regulations "to prevent the introduction of plant pests into the United States or the dissemination of plant pests within the United States."¹⁰⁸ The Secretary delegated that regulatory authority to the Animal and Plant Health Inspection Service (APHIS), which promulgated regulations that presume genetically engineered plants to be "plant pests"—and therefore "regulated articles" under the PPA—unless APHIS determines otherwise.¹⁰⁹

In 2004, Petitioner Monsanto Company (Monsanto), owner of the intellectual property rights to RRA, and co-petitioner Forage Genetics International (FGI), the exclusive developer of RRA seed, sought nonregulated status for two varieties of RRA.¹¹⁰ In determining whether to grant nonregulated status to permit the use of a genetically engineered plant variety, APHIS must comply with NEPA.¹¹¹ NEPA requires federal agencies "to the fullest extent possible" to prepare a detailed environmental impact statement (EIS) for "every... major Federal actio[n] significantly affecting the quality of the human environment."¹¹² A federal agency need not complete an EIS if it concludes in a shorter statement known as an environmental assessment (EA) that the proposed action will not have a significant environmental impact and issues a Finding of No Significant Impact (FONSI).¹¹³

In response to petitioners' deregulation request, APHIS prepared a draft EA that determined that the introduction of RRA would not have any significant adverse impact on the environment, although it acknowledged that insect cross-pollination of RRA and organic alfalfa was possible.¹¹⁴ After publishing the draft EA in the Federal Register and taking public comment on the draft EA, APHIS promulgated a Finding of No Significant Impact regarding the deregulation of RRA, and, therefore, did not prepare an EIS.¹¹⁵ In light of its Finding, APHIS

^{107.} Id.

^{108.} Monsanto, 130 S. Ct. at 2749 (quoting and citing 7 U.S.C. § 7711(a) (2009)).

^{109.} Id. at 2749-50.

^{110.} *Id.* at 2750.

^{111. 42} U.S.C. §§ 4321-47 (2009).

^{112.} Monsanto, 130 S. Ct. at 2750; 42 U.S.C. § 4332(2)(C) (2009).

^{113.} *Monsanto*, 130 S. Ct. at 2750; Straka, *supra* note 104, at 389-90 (discussing NEPA's procedural requirements, including issuing a Finding of No Significant Impact (FONSI).

^{114.} *Monsanto*, 130 S. Ct. at 2750; Straka, *supra* note 104, at 385 (observing that APHIS determined RRA would not significantly harm organic alfalfa despite evidence that insect cross-pollination of RRA and organic alfalfa was possible).

^{115.} Monsanto, 130 S. Ct. at 2750.

determined to deregulate RRA unconditionally.¹¹⁶ Prior to its decision to deregulate RRA, APHIS had authorized almost 300 field trials of RRA during a period of eight years.¹¹⁷

After APHIS deregulated RRA, the respondents-plaintiffs, including both conventional and organic alfalfa growers, along with environmental groups, filed suit in federal district court challenging APHIS' deregulation decision on the ground that it violated NEPA and other federal laws.¹¹⁸ The suit was the first to challenge APHIS' deregulation of a genetically modified crop.¹¹⁹ While the case pended for two years and because the plaintiffs failed to seek preliminary injunctive relief, more than 3,000 farmers in 48 States planted an estimated 220,000 acres of RRA.¹²⁰ Although the District Court accepted APHIS's conclusion that RRA does not have any harmful health effects on humans or livestock, the District Court held that APHIS had violated NEPA when it deregulated RRA before it completed a detailed EIS because APHIS failed to address two significant environmental issues: first, the degree to which its deregulation decision would result in the transmission of the gene conferring glyphosate tolerance from RRA to organic and conventional alfalfa; and second, the degree to which RRA would lead to the development of Roundup®-resistant weeds.¹²¹ To remedy the NEPA violation, the District Court vacated the agency's deregulation decision, ordered APHIS to complete an EIS before it decided whether to deregulate RRA, and entered a nationwide permanent injunction prohibiting almost all future planting of RRA during the pendency of the EIS process; however, the court authorized those who had already purchased RRA to plant their seeds until March 30, 2007 as long as they followed the conditions the Court had imposed on those who had already planted RRA.¹²² The petitioners and the government appealed the District Court's decision, challenging the scope of the relief granted, although they did not deny that APHIS' deregulation decision violated NEPA.¹²³ A divided panel of the Ninth Circuit affirmed the District Court's issuance of the broad injunctive relief measures because it held that the District Court had not abused its discretion in rejecting APHIS'

116. *Id*.

123. *Id.* at 2752.

^{117.} *Id.*

^{118.} *Id.* at 2750-51.

^{119.} Straka, *supra* note 104, at 386.

^{120.} Monsanto, 130 S. Ct. at 2751.

^{121.} Id.

^{122.} Id. at 2751-52.

proposed limited mitigation measures in favor of a broader injunction designed to prevent irreparable harm from the planting of RRA.¹²⁴

In reversing the Ninth Circuit, the Supreme Court, in an opinion by Justice Alito, held that the District Court had abused its discretion by enjoining APHIS from effecting a partial deregulation decision and prohibiting the planting of virtually any RRA pending the agency's completion of the EIS.¹²⁵ Furthermore, the Court determined that the District Court had erred in following Ninth Circuit precedent that stated that a NEPA violation creates a presumption in favor of a district court granting injunctive relief.¹²⁶ To the contrary, the Supreme Court in its 2008 decision *Winter v. Natural Resources Defense Council, Inc.*¹²⁷ held that a plaintiff in a NEPA case must still satisfy a standard four-part test before a court may grant permanent injunctive relief.¹²⁸ In *Monsanto*, Justice Alito reasoned that the District Court and Ninth Circuit below had erred in relying on pre-*Winter* decisions that inappropriately exempted NEPA cases from the four-factor test for granting injunctive relief.¹²⁹

The Court in *Monsanto* reasoned that none of the four factors for granting injunctive relief supported the District Court's order enjoining APHIS from partially deregulating RRA during the pendency of the EIS process.¹³⁰ Most notably, the Court concluded that respondents could not show that they would suffer irreparable injury if APHIS was allowed to proceed with any partial deregulation, based on two separate grounds.¹³¹ First, if APHIS issued a partial deregulation decision that arguably ran afoul of NEPA, Justice Alito's majority opinion observed that the respondents could file a new suit challenging that decision and seeking appropriate preliminary relief.¹³² Thus, he concluded that a permanent

130. Id. at 2758-60.

^{124.} *Id.* (discussing Ninth Circuit's decision to affirm injunctive relief in Geertson Seed Farms v. Johanns, 570 F.3d 1130, 1136-39 (2009)); Straka, *supra* note 104, at 394-96 (same).

^{125.} See Monsanto, 130 S. Ct. at 2757-62.

^{126.} Id.

^{127.} Id. (citing and discussing Winter v. Natural Resources Defense Council, Inc., 129 S. Ct. 365, 380-82 (2008)).

^{128.} Id. at 2756. A plaintiff seeking permanent injunctive relief must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

Id. (citing eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391). The *Monsanto* decision concluded that "[t]his test fully applies in NEPA cases." *Id.*

^{129.} Id. at 2756-57.

^{131.} Id. at 2759-60.

^{132.} *Id.* at 2760.

injunction was unnecessary to protect the respondents against a present or imminent risk of likely irreparable harm.¹³³ Second, Justice Alito determined that partial deregulation of RRA might not harm respondents at all.¹³⁴ He posited that if the scope of deregulation is adequately limited, the risk of gene flow to respondents' crops could be near zero, provided that farms using RRA are far enough from any conventional or organic farms. In light of the District Court's failure to consider that partial deregulation might cause no irreparable harm to the respondents, the Supreme Court concluded that the District Court erred in enjoining any partial deregulation actions by APHIS pending the agency's preparation of an EIS.¹³⁵

Furthermore, the Supreme Court determined that the District Court also erred in entering a nationwide injunction against planting RRA for two additional reasons.¹³⁶ First, the majority concluded that because it was improper for the District Court to foreclose even the possibility of a partial and temporary deregulation action, it was equally inappropriate for the District Court to enjoin planting in accordance with that deregulation decision.¹³⁷ Second, the Supreme Court concluded that the District Court erred in issuing an injunction, which is a drastic and extraordinary remedy that courts should only issue in exceptional circumstances, because the respondents conceded that a less drastic remedy, such as partial or complete vacatur of APHIS's deregulation decision, was sufficient to redress their injury without issuing an injunction.¹³⁸ Finally, the Supreme Court held: "[T]he District Court abused its discretion in enjoining APHIS from effecting a partial deregulation and in prohibiting the possibility of planting in accordance with the terms of such a deregulation."¹³⁹ Having discussed the substance of the Monsanto decision, this Essay will now turn to the standing issues that are its central focus.

B. Justice Scalia's Skepticism Regarding Standing in the Oral Argument

During the oral argument in *Monsanto*, Justice Scalia expressed skepticism regarding whether the respondents-plaintiffs, conventional and organic alfalfa farmers, could demonstrate that planting the RRA would cause them actual harm sufficient to establish standing in the case.

^{133.} *Id.*

^{134.} *Id.*

^{135.} *Id.* at 2761.

^{136.} *Id*.

^{137.} *Id.*

^{138.} *Id.*

^{139.} *Id.* at 2761-62.

He initially asked, "Mr. Robbins, can I ask you about your client's standing? What individual plaintiff here stood to be harmed by what the agency had done?"¹⁴⁰ Justice Scalia then asked, before Mr. Robbins had replied to his first question, "Which one of [the plaintiffs] was—was within, what, 5 miles of any—any field of the genetically engineered alfalfa?"¹⁴¹

Mr. Robbins, the respondents-plaintiffs' attorney, answered Justice Scalia's first two standing questions as follows: "For example, in the courtroom today, Mr. Pat Trask from western South Dakota, ... a conventional hay and seed farmer, who alleged, put in proof, that he stood—if the deregulation went forward without any injunction, he stood a risk of cross-pollination and contamination."¹⁴² Justice Scalia responded skeptically to Mr. Robbins' answer: "From somebody within 5 miles, 10 miles, 20 miles?"¹⁴³ Mr. Robbins responded, "[W]hat was enjoined was the future proliferation of [RRA], where the president of the company told the district court: 'If you let us continue to "introduce," in the words of the statute, this product, we are already at 220,000 acres; we will become a million acres, fivefold increase."¹⁴⁴

Despite the evidence that RRA's use would likely expand significantly if APHIS deregulated it, Justice Scalia responded critically to the respondents-plaintiffs' standing argument:

So you want the Court to assume that somebody is going to be planting a field of the genetically engineered alfalfa within what, 5 miles of . . . one of your named plaintiffs? . . . The fact is there isn't a single named plaintiff who—who has—has any claim that within the utmost limits of—of risk, he is at risk currently.¹⁴⁵

It is fair to read the oral argument transcript as indicating that Justice Scalia was not convinced that the respondents-plaintiffs had demonstrated an actual injury necessary for standing.

Justice Sotomayor then asked a series of questions in an apparent effort to save the respondents-plaintiffs' standing argument. She inquired, "[a]m I factually correct that the harm is that from some seed-grown alfalfa a bee or the wind is going to take the pollen and put it into a conventional field?"¹⁴⁶ Mr. Robbins answered, "Yes. One of the risks

^{140.} Transcript of Oral Argument at 26, Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743 (2010) (No. 09-475).

^{141.} Id. at 26-27.

^{142.} Id. at 27.

^{143.} Id.

^{144.} Id.

^{145.} Id. at 27-28.

^{146.} *Id.* at 28.

is cross-pollination."¹⁴⁷ He then explained in response to a question by Justice Sotomayor that the risk of contamination varied somewhat depending upon whether the alfalfa was grown for hay or for seed, but that "whether you are growing hay or whether you are growing alfalfa for seed, there was a sufficiently likely risk not only of cross-pollination or all the other ways that contamination happens—through dropping seeds, through seed mixing, through custom cutting, through missing ends of fields."¹⁴⁸ Justice Sotomayor then asked whether hay farmers "rent equipment from someone else" to cut their hay?¹⁴⁹ Mr. Robbins responded that the common practice of renting equipment or hiring custom cutters to cut a farmer's hay increased the risk of contamination between genetically modified and non-modified farms because the "custom cutter . . . may be cutting an RRA field today and your field tomorrow."¹⁵⁰

Despite Mr. Robbins' argument that common farming practices would result in the cross-contamination of RRA and conventional and organic alfalfa seeds, Justice Scalia remained skeptical that such cross-contamination would take place. He stated to Mr. Robbins, "You—you don't think the free market would produce companies that advertise: We only cut natural seed fields? You don't think that would happen? I'm sure it would happen."¹⁵¹ Mr. Robbins tried to respond to Justice Scalia's assertion that the market would prevent cross-contamination. He responded, "[T]he record, Justice Scalia, before the district court does not tell us one way or the other [whether the market will create firms that specialize in only cutting non-genetically modified hay]."¹⁵²

Justice Ginsburg then asked how many acres of RRA were likely to be planted.¹⁵³ Mr. Robbins indicated that the best estimate was that the number of acres would grow from about 220,000 acres to one million acres.¹⁵⁴ Justice Scalia responded that the number of RRA acres planted alone did not prove how "many unwilling farmers are going to have infected fields."¹⁵⁵ Mr. Robbins acknowledged that Justice Scalia had made a relevant point when he responded, "No, I—I understand."¹⁵⁶ Justice Scalia then tartly remarked, "Okay. Well, I'm not sure we

- 147. Id. at 29.
- 148. Id. at 29-30.
- 149. Id. at 30.
- 150. Id. at 33
- 151. Id.
- 152. *Id.*
- 153. Id. at 33-34.
- 154. Id. at 34
- 155. Id. at 35.
- 156. *Id*.

understood."¹⁵⁷ Mr. Robbins then tried to explain that the District Court had properly considered the amount of predicted RRA acreage in determining whether the respondents-plaintiffs were likely to suffer irreparable harm from cross-contaminated RRA seed. He argued,

I took Justice Ginsburg's question to be asking: What was the—the relevant risk that the district court had to consider for purposes of irreparable harm? And certainly one factor which powerfully distinguishes this case from the Court's decision in *Winter* is that, whereas the Navy had been running these exercises for some 40 years and there was a well-developed track record as a consequence, here this is a new technology that was about to spread at least fivefold over 2 years.¹⁵⁸

Other Justices then asked different questions not related to standing and the oral argument never squarely returned to whether the respondentsplaintiffs had proven an actual injury. While it is possible that Justice Scalia merely asked tough questions to probe the strength of the respondents-plaintiffs' standing arguments, the overall tone of his questions and remarks about standing suggest that he was, at a minimum, skeptical of the respondents-plaintiffs' standing argument, or that he had tentatively concluded that their standing argument was likely to fail.

C. The Court Concludes that the Respondents Have Economic Injuries from the Possibility of Cross-Contamination

Justice Alito's majority opinion concluded that the respondentsplaintiffs had sufficient injury from a "substantial risk of gene flow" to meet constitutional standing requirements even if they could not prove actual contamination.¹⁵⁹ His somewhat convoluted analysis may have been designed to win the vote of Justice Scalia, who as Subpart B above demonstrates, was not convinced that the respondents-plaintiffs could show an actual injury from the activities of the petitioners in selling RRA that is then planted by numerous alfalfa farmers.¹⁶⁰ Justice Alito's opinion reasoned that the respondents-plaintiffs would suffer actual economic injuries from additional testing and avoidance measures necessitated by the nearby presence of RRA farmers even if no crosscontamination took place.¹⁶¹ Justice Scalia may have joined the majority opinion because of evidence that the respondents would suffer some economic injuries even in the absence of actual cross-contamination. His

^{157.} Id.

^{158.} Id. at 35-36.

^{159.} Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743, 2754-55 (2010).

^{160.} See supra Part II.B.

^{161.} Monsanto, 130 S. Ct. at 2755.

willingness to premise standing on secondary economic harms is similar to his remarks in his *Laidlaw* dissenting opinion that he would have recognized standing if the plaintiffs in that case had demonstrated indirect property losses from the presence of mercury in the river even if they could not show direct environmental or health harms from the mercury releases.¹⁶²

Justice Alito observed that the District Court had found that there was a "reasonable probability" that the respondent conventional and organic seed farmers would be infected by the RRA farmers if APHIS completely deregulated RRA because alfalfa seed farms are generally geographically concentrated.¹⁶³ The District Court is located in the Ninth Circuit; so it is no surprise that it applied the Circuit's "reasonable probability" standing test.164 Justice Alito did not discuss the "reasonable probability" test, but in a footnote he reviewed evidence in the record indicating that some of the respondents were located near RRA farms and that they faced a "significant risk" of crosscontamination from pollinating bees and the close location of RRA farms.¹⁶⁵ He did not address whether the Ninth Circuit's "reasonable probability" test or the D.C. Circuit's conflicting "substantial probability" standard was the appropriate test to determine whether a procedural rights plaintiff has standing.¹⁶⁶

After reviewing the District Court's decision and the evidence in the record, Justice Alito concluded that "[a] substantial risk of gene flow injures respondents in several ways."¹⁶⁷ Most interestingly, he concluded that the respondents would suffer a "sufficiently concrete" injury "even if their crops are not actually infected with the Roundup® ready gene."¹⁶⁸ By focusing on the [certain] economic harms the respondents faced from testing and mitigation, Justice Alito avoided the more contentious issue of whether the respondents' crops would actually be harmed by the RRA alfalfa, and thereby likely gained Justice Scalia's vote. As a result, the Court did not address whether a "substantial risk" of future harm alone is sufficient injury for standing.¹⁶⁹

The Court concluded that the respondents had demonstrated that they would incur testing costs "in order to continue marketing their

^{162.} See supra Part I.C.

^{163.} Monsanto, 130 S. Ct. at 2754.

^{164.} See supra Part I.B.

^{165.} See Monsanto, 130 S. Ct. at 2754 n.3.

^{166.} See supra Part I.B.

^{167.} Monsanto, 130 S. Ct. at 2754-55.

^{168.} Id. at 2755.

^{169.} In *Summers*, the Court stated that a future risk of harm is generally not sufficient for standing unless it is sufficiently imminent. *See* Summers v. Earth Island Institute, 129 S. Ct. 1142, 1149-53 (2009); *supra* Part I.E.

product to consumers who wish to buy non-genetically-engineered alfalfa.^{"170} The decision cited separate evidence in the record from both plaintiffs, Phillip Geertson and Patrick Trask, that they would have to test their crops and their seed to determine if they were free of genetically-engineered alfalfa.¹⁷¹ Additionally, the Court relied on evidence from the respondents "that the risk of gene flow will cause them to take certain measures to minimize the likelihood of potential contamination and to ensure an adequate supply of non-genetically-engineered alfalfa."¹⁷² For example, Geertson declared that he had "begun contracting with growers outside of the United States to ensure that I can supply genetically pure, conventional alfalfa seed. Finding new growers has already resulted in increased administrative costs at my seed business."¹⁷³

By basing standing on the economic injuries conventional and organic farmers had suffered and will suffer, resulting from seed testing and other actions designed to minimize the risk of seed contamination, Justice Alito's majority found that the respondents-plaintiffs had suffered a sufficiently concrete injury for constitutional standing without addressing the more controversial question of whether the RRA would actually contaminate respndents-plaintiffs crops.¹⁷⁴ Because Justice Scalia during the oral argument had expressed the most skepticism about whether the respondents-plaintiffs could prove that their crops would be contaminated,¹⁷⁵ it is plausible that Justice Alito's designed his opinion to win Justice Scalia's vote by avoiding the question of whether crosscontamination would actually occur. In his Laidlaw dissent, Justice Scalia had stated that the plaintiffs in that case could have established standing by demonstrating that the mercury releases had damaged their property values even if they could not prove actual environmental and health harms from the mercury releases.¹⁷⁶ Justice Alito's opinion likely convinced Justice Scalia to join the majority by focusing on the more easily provable secondary economic harms of testing and mitigation as sufficient for standing, even if Justice Scalia was not convinced of the direct harm of cross-contamination. Accordingly, environmental plaintiffs demonstrating that they have suffered economic harm from a defendant's actions might convince Justice Scalia that they have

^{170.} Monsanto, 130 S. Ct. at 2755.

^{171.} Id.

^{172.} *Id.*

^{173.} *Id.* 174. *Id.*

^{174.} IU

^{175.} See supra Part II.B.

^{176.} See supra Part I.C.

standing, even if Justice Scalia may be more skeptical of their broader environmental or health claims.

The Court concluded that the respondents-plaintiffs had satisfied the traceability or causation portion of the standing test because the economic harms of additional testing and minimizing contact with RRA alfalfa "are readily attributable to APHIS's deregulation decision, which, as the District Court found, gives rise to a significant risk of gene flow to non-genetically-engineered varieties of alfalfa."¹⁷⁷ Furthermore, the respondents satisfied the redressability portion of the standing test because "a judicial order prohibiting the growth and sale of all or some genetically engineered alfalfa would remedy respondents' injuries by eliminating or minimizing the risk of gene flow to conventional and organic alfalfa crops."¹⁷⁸ Accordingly, the *Monsanto* Court held "that respondents have constitutional standing to seek injunctive relief from the complete deregulation order at issue here."¹⁷⁹

D. The Respondent-Plaintiffs Meet the Zone of Interests Tests Because They AllegedEnvironmental and Economic Harms

In addition to challenging the respondents-plaintiffs' constitutional standing under Article III, the petitioners also argued that the respondents-plaintiffs did not meet the prudential "zone of interests" standing test, applicable "in cases challenging agency compliance with particular statutes."¹⁸⁰ The judicial branch may impose prudential standing requirements to limit suits in federal courts in addition to constitutional Article III requirements, although Congress may waive or modify judicially imposed prudential requirements.¹⁸¹ The "zone of interest" prudential standing test seeks to limit suits to those related to a statute's purposes.¹⁸² In their reply brief, the petitioners-defendants contended "that protection against the risk of commercial harm 'is not an interest that NEPA was enacted to address.""183 Essentially, the petitioners-defendants seemed to argue that a suit that has the sole purpose of achieving economic goals is outside the statutory scope of NEPA, which is primarily focused on environmental protection.¹⁸⁴

183. *Monsanto*, 130 S. Ct. at 2755-56 (quoting Reply Brief for Petitioners at 12, *Monsanto*, 130 S. Ct. 2743 (No.09-475)).

^{177.} Monsanto, 130 S. Ct. at 2755.

^{178.} Id.

^{179.} Id.

^{180.} *Id.*

^{181.} Bennett v. Spear, 520 U.S. 154, 162 (1997).

^{182.} Id. at 162-63.

^{184.} Id. at 2756 (discussing petitioners' argument that plaintiffs-respondents were only concerned with economic issues outside NEPA's environmental scope); see also id.

In Bennett v. Spear, the Supreme Court addressed which categories of plaintiffs have prudential standing under the "zone of interests" test to sue pursuant to the Endangered Species Act (ESA).¹⁸⁵ The Fish and Wildlife Service (FWS) of the United States Department of the Interior issued a biological opinion that limited water withdrawals from two lakes in Oregon to protect two endangered species of fish.¹⁸⁶ The operators of the two lakes as well as the operators of two ranches that used water from the lakes filed suit under the ESA arguing that the water limitations were excessively restrictive.¹⁸⁷ The District Court dismissed the complaint for lack of jurisdiction, concluding that the plaintiffs lacked standing because the plaintiffs' recreational, aesthetic, and commercial interests did not fall within the zone of interests the ESA sought to protected.¹⁸⁸ The Ninth Circuit Court of Appeals affirmed the District Court's dismissal, reasoning that "only plaintiffs who alleged an interest in the preservation of endangered species [fell] within the zone of interests protected by the ESA."189

The Supreme Court reversed the decisions of the lower courts because it concluded that the plaintiffs met the zone of interests test under the ESA and the Administrative Procedure Act.¹⁹⁰ The Ninth Circuit had interpreted the ESA to allow suits under the zone of interests test only to environmentalists who sought to protect endangered species by alleging that the government has under-enforced the statute, but the Supreme Court concluded that the ESA also includes suits challenging a decision of the FWS and the Secretary of the Interior that is overly protective and based on flawed scientific or economic data.¹⁹¹ The statute requires the Secretary of the Interior, in determining the amount of land or water that must be set aside as essential "critical habitat" for endangered species, to consider "the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat."¹⁹² Accordingly, suits by plaintiffs who argue that the Secretary of the Interior has relied on flawed scientific and economic data in setting aside too much land or water for endangered species are within the zone of

at 2746 (explaining NEPA requires federal agencies to examine significant environmental effects of their proposed decisions).

^{185.} Bennett, 520 U.S. at 161-62.

^{186.} Id. at 159.

^{187.} Id. at 159-60.

^{188.} Id. at 160-61.

^{189.} *Id. at* 161 (quoting Bennett v. Plenert, 63 F.3d 915, 919 (9th Cir. 1995) (emphasis removed)).

^{190.} Id. at 165-79.

^{191.} Id. at 166-79.

^{192.} Id. at 172 (quoting 16 U.S.C. § 1533(b)(2) (1973)).

interests of the ESA's statutory purposes.¹⁹³ The fact that the ranchers had an economic interest in overturning the government's critical habitat decision did not preclude them from filing suit.

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In *Monsanto*, the petitioners argued that the respondent-plaintiffs' suit was not within the environmental purpose of NEPA because the conventional and organic farmers only cared about the profitability of their farms and not the environment.¹⁹⁴ While the Supreme Court did not cite these cases, there are some lower court decisions that have concluded that plaintiffs who have purely economic interests do not have standing under the zone of interests test to sue pursuant to an environmental statute.¹⁹⁵ For example, in Hazardous Waste Treatment Council v. EPA (HWTC II), the D.C. Circuit denied prudential standing to a trade association that sought to promote incineration and other advanced treatment of hazardous waste to serve both the economic interests of its members and statutory environmental purposes.¹⁹⁶ The court viewed the Council's economic interests as unrelated to and potentially hostile to the environmental purposes of the Resource Conservation and Recovery Act (RCRA) even though the court acknowledged that there might be some "incidental benefit" between the Council's economic goals and the statute's environmental purposes.¹⁹⁷ The HWTC II decision was reluctant to recognize prudential standing for a party whose economic motives might make it an unreliable advocate for the purposes of the statute.¹⁹⁸ One commentator has sharply criticized decisions that deny prudential standing to "environmental capitalists" without any proof that their economic motives cause them to act contrary to the statutory purposes that should be at the heart of the zone of interests standing test.¹⁹⁹

^{193.} Id. at 172-79.

^{194.} Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743, 2755-56 (2010).

^{195.} See, e.g., Hazardous Waste Treatment Council v. U.S. Envtl. Prot. Agency [hereinafter *HWTC II*], 861 F.2d 277, 282-85 (D.C. Cir. 1988) (holding plaintiff failed zone of interest test in suit under Resource Conservation and Recovery Act because its goals were purely economic); Jim Wedeking, *Addressing Judicial Resistance to Reciprocal Reliance Standing in Administrative Challenges to Environmental Regulations*, 14 N.Y.U. ENVTL. L.J. 535 (2006) (discussing cases where court denied zone of interest standing in environmental suit because court concluded that plaintiff had purely economic motivations for suit unrelated to environmental purposes of statute).

^{196.} HWTC II, 861 F.2d at 282-85; Wedeking, supra note 195, at 545-46.

^{197.} HWTC II, 861 F.2d at 282-85; Wedeking, supra note 195, at 545-46.

^{198.} HWTC II, 861 F.2d. at 282-85; Wedeking, supra note 195, at 545-46.

^{199.} See HWTC II, 861 F.2d at 282-85 (denying zone of interests standing to trade association with purely economic interests in enforcement of environmental statute); Wedeking, *supra* note 195, *passim* (discussing cases denying zone of interest standing to "environmental capitalists").

The Supreme Court in *Monsanto* did not address whether the economic interests of the conventional and organic farmers call into question their prudential standing under the zone of interest test.²⁰⁰ Instead, Justice Alito's opinion observed,

In its ruling on the merits of respondents' NEPA claim, the District Court held that the risk that the RRA gene conferring glyphosate resistance will infect conventional and organic alfalfa is a significant environmental effect within the meaning of NEPA. Petitioners did not appeal that part of the court's ruling, and we have no occasion to revisit it here. Respondents now seek injunctive relief in order to avert the risk of gene flow to their crops—the very same effect that the District Court determined to be a significant environmental concern for purposes of NEPA. The mere fact that respondents also seek to avoid certain economic harms that are tied to the risk of gene flow does not strip them of prudential standing.²⁰¹

Because the District Court concluded that RRA posed a significant environmental risk as defined in NEPA to the respondents' crops and the petitioners did not appeal that conclusion, the Court determined that there was undisputed evidence of environmental harm to the plaintiffs that was in turn the subject of the requested injunctive relief.²⁰² Unlike the facts in HWTC II, there was no evidence in Monsanto that the parties seeking relief had solely economic motives.²⁰³ The Monsanto Court reasoned that the "mere fact" that the respondents had economic motives accompanying their desire to prevent environmental harms to their crops did not "strip them of prudential standing."²⁰⁴ Because the Monsanto respondents had legitimate environmental concerns, they had the right to prudential standing under the zone of interests test even if they also had economic motivations as well.²⁰⁵ Accordingly, the facts in *Monsanto* were different from the purely economically motivated petitioner in HWTC II and the Supreme Court did not have to answer whether it agreed with the reasoning in HWTC II.

A plaintiff or petitioner that has both economic and environmental injuries may have an easier time establishing standing than a litigant who only has one or the other interest. A purely environmental plaintiff may have difficulties establishing standing if, like the plaintiffs in *Summers*, there is uncertainty about where and when the alleged environmental

^{200.} Monsanto Co. v. Geerston Seed Farms, 130 S. Ct. 2743, 2756 (2010).

^{201.} Id.

^{202.} Id.

^{203.} *Id.* 204. *Id.*

^{204.} *Id.* 205. *Id.*

harm may occur.²⁰⁶ On the other hand, a plaintiff or petitioner with only economic interests like the Council in *HWTC II* may fail the prudential standing zone of interests test.²⁰⁷ The plaintiffs-respondents in *Monsanto* benefited from having both environmental and economic interests at stake to establish standing.²⁰⁸ Their economic injuries from testing costs and avoidance of cross-contamination were easier to prove than whether the RRA would cause actual environmental harm.²⁰⁹ Yet the District Court's finding of significant environmental harm within the meaning of NEPA defeated any attempt by the petitioners to analogize the case to *HWTC II*.²¹⁰ Accordingly, having both economic and environmental injuries may make it easier for a plaintiff to demonstrate standing.

IV. CONCLUSION

The Supreme Court has often sharply divided in environmental standing cases.²¹¹ Most frequently, members of the Court have disagreed about whether a threatened environmental injury is sufficient for standing. For example, in *Laidlaw*, Justice Ginsburg's majority opinion found that the plaintiffs had standing because they avoided recreating in a river because of their "reasonable concerns" about the defendant's mercury discharges into a river, but Justice Scalia would have denied standing because the plaintiffs failed to prove harm to themselves or the environment.²¹² By contrast, in the subsequent *Summers* decision, Justice Scalia wrote the majority opinion denying standing to environmental groups challenging a Forest Service practice of selling fire-damaged timber without public notice and comment because the organizations could not prove when and where their members would be harmed in the near future, although he acknowledged that it was "likely" that one of the more than 700,000 members of the plaintiff organizations

^{206.} See supra Part I.E.

^{207.} See Wedeking, supra note 195, passim.

^{208.} Monsanto, 130 S. Ct. at 2754-56.

^{209.} See id., 130 S. Ct. at 2754-55; supra Part II.C.

^{210.} Monsanto, 130 S. Ct. at 2756.

^{211.} See, e.g., Summers v. Earth Island Inst., 129 S. Ct. 1142 (2009) (five to four decision on environmental standing); Massachusetts v. EPA, 549 U.S. 497 (2007) (same); Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc. 528 U.S. 167, 198 (2000) (Justice Scalia dissented in an opinion joined by Justice Thomas); Lujan v. Defenders of Wildlife, 504 U.S. 555 (1992) (Justice Scalia wrote an opinion that represented the majority opinion on most issues, but only the plurality opinion on redressability; Justice Kennedy wrote an opinion concurring in part and concurring in the judgment joined by Justice O'Connor; Justice Stevens concurred in the judgment, but did not agree with majority/plurality opinion on standing).

^{212.} See supra Part I.C.

would be harmed in the future.²¹³ Justice Breyer in his *Summers* dissenting opinion, which was joined by Justice Ginsburg and two other Justices, argued that the Court should adopt a "reasonable probability" for whether members of an organization are likely to be harmed in the near future by the government's failure to follow procedural rules mandated by Congress.²¹⁴

In *Monsanto*, Justice Alito wrote an opinion that joined together Justices that had often disagreed in the past regarding environmental standing cases.²¹⁵ For example, Justice Ginsburg, the author of *Laidlaw* and a dissenting Justice in *Summers*, joined Justices Scalia and Thomas, who both dissented in *Laidlaw* and were in the majority in *Summers*.²¹⁶ Justice Alito was able to bring the Court together by focusing on the respondents-plaintiffs' economic losses from testing their seeds and preventing cross-contamination. His opinion stated that there was a "substantial risk of gene flow," but he also stated that the plaintiffs had enough economic injury from testing and avoidance measures, even if no cross-contamination of genetically-modified, and conventional, and organic seeds occurred.²¹⁷

This essay suggests that Justice Alito's opinion was designed in part to win Justice Scalia's vote.²¹⁸ During the oral argument, Justice Scalia expressed skepticism that the respondent-plaintiffs could prove that RRA seed would cross-contaminate their conventional seed, yet he joined the majority opinion.²¹⁹ Most likely, he was swayed by the opinion's reliance on indirect economic costs from testing seeds and preventative measures.²²⁰ Similarly, in his *Laidlaw* dissenting opinion, Justice Scalia was willing to consider indirect property losses as a basis for standing in a case where he clearly thought that the plaintiffs failed to demonstrate environmental injury, although he ultimately found that the plaintiffs had failed to prove that Gail Lee's home was worth less because of public fears about mercury discharges.²²¹

Monsanto offers a possible model for environmental plaintiffs who may not be able to prove environmental injury, but may be able to

^{213.} *Summers*, 129 S. Ct. at 1149-53 (stating "While it is certainly possible—perhaps even likely—that one individual will meet all of these criteria, that speculation does not suffice.").

^{214.} Id. at 1155-58 (Breyer, J., dissenting).

^{215.} See supra Part II.C.

^{216.} See supra Parts I.C, & I.E.

^{217.} See supra Part II.C.

^{218.} Id.

^{219.} See supra Part II.B.

^{220.} See supra Part II.C.

^{221.} See supra Part I.C.

demonstrate some concrete economic losses from related activities.²²² Plaintiffs in past cases have occasionally raised both environmental and economic losses as possible bases for standing.²²³ In light of the Court's divided views on environmental standing, it would be prudent for environmental plaintiffs to raise economic harm arguments for standing whenever it is plausible to do so, although they should avoid a totally economic approach that might raise questions under the prudential zone of interests standing test.²²⁴

^{222.} See supra part II.C; Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743, 2754-55 (2010).

^{223.} See, e.g., Massachusetts v. EPA, 549 U.S. 497, 522-23 (2007) (concluding climate change caused injury to Commonwealth of Massachusetts' property interest in coastal property); Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167, 181-83 (2000) (claiming defendant's mercury discharges caused both aesthetic injuries to the environment and property losses); Duke Power Co. v. Carolina Envtl. Study Group, Inc., 438 U.S. 59, 72-74 (1978) (alleging nearby nuclear power plant caused both potential property losses to their homes and environmental harms to nearby lake); Stearns, *supra* note 9, at 382-84 (discussing allegations of property losses as the basis for standing in *Duke Power* and *Laidlaw*).

^{224.} See supra Part II.D.