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The Justifications for Nondegradation Programs in U.S. Environmental Law

Robert L. Glicksman*

I. INTRODUCTION

The international law principle of non-regression requires that existing norms or standards not be revised to reduce the protection of collective or individual rights.¹ Within the European Union (EU), the non-regression principle requires member states to ensure that setting common minimum standards in accordance with EU Directives does not have the effect of lowering standards in individual member states.² EU employment legislation, for example, includes non-regression clauses providing that the implementation of an EU Directive does not justify reducing the general level of worker protection in the field covered by that Directive.³

The concept of non-regression is not one that is familiar to environmental law in the United States. Nevertheless, Congress and federal agencies have adopted programs to prevent degradation of existing high quality environments and to prevent revisions of individual emissions restrictions by making them more lenient. The first programs are known as nondegradation or anti-degradation programs. The others preclude “backsliding” by prohibiting slippage in performance by regulated entities complying with regulations that are later loosened. The nondegradation and anti-backsliding programs differ from the non-regression principle in that their justifications are not rooted in a commitment to the protection of individual rights. Instead, the programs are based on goals that include providing a safety net in the event that ambient quality-based environmental standards are not as protective as assumed, protecting unique landscapes of high recreational, cultural, or spiritual value, balancing environmental protection goals with efforts to promote economic growth, preventing the development of pollution havens, and spurring the development of more effective pollution control technology.

This chapter explores the history and current status of nondegradation and anti-backsliding programs under U.S. water and air pollution control legislation. It describes the justifications for these programs that appear to have prompted Congress and the federal Environmental Protection Agency (EPA) to adopt them. It also assesses

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¹ Non Regression Principle Knowledge Forum, http://www.iucn.org/about/work/programmes/environmental_law/elp_news/elp_news_archive/?5888/NON-REGRESSION-PRINCIPLE-KNOWLEDGE-FORUM (19.8.11). See also Alice Donald, *A Bill of Rights for the UK? Why the Process Matters*, 5 HUMAN RIGHTS L. REV. 494 (2010) (“[T]he principle of non-regression established by UN treaty bodies . . . require[es] that standards for human rights protection that have already been adopted should not later be undone.”).

² European Union Preparatory Acts, Proposal for a Directive of the European Parliament and of the Council on the Right of Access to a Lawyer in Criminal Proceedings and on the Right to Communicate upon Arrest, EU: COM(2011) 326, Art. 14.

³ Steve Peers, *Non-regression Clauses: The Fig Leaf Has Fallen*, 39 INDUSTRIAL L.J. 446 (2010).

alternative, rights-based justifications for nondegradation programs, that, while not reflected in federal environmental law in the U.S., may be supported by state constitutional and common law theories. While these theories may support rights-based nondegradation constraints in limited contexts, they are not likely to generate a broad-based set of nondegradation obligations that bind governments in the U.S.

II. RIGHTS-BASED ENVIRONMENTAL PROTECTION IN THE UNITED STATES

Neither the U.S. Constitution nor federal environmental statutes recognize an enforceable individual right to a clean or healthy environment. Individual state laws are more receptive to the creation and protection of such rights. Some state constitutions recognize individual environmental rights, although those provisions may depend on legislative implementation. Some state common law tort theories, which supplement statutory environmental programs, are also rights-based.

A. Environmental Rights under Federal Law

As a matter of federal law, there is no right to any particular level of environmental quality. Legislators in the 1960s and 1970s introduced bills in Congress to provide constitutional status to environmental protection.⁴ The reluctance of the American people to alter the Constitution, the rigorous process for doing so, and confidence that legislation would produce the desired level of protection even without a constitutional amendment helped defeat those bills.⁵ The conviction that legislative protection was sufficient was not necessarily misguided, given the array of environmental laws Congress adopted between 1969 and 1980 and the rigor with which courts enforced statutes such as the National Environmental Policy Act.⁶ In addition, the beneficiaries of environmental protection rights are not the kind of minority without effective access to the legislative process for which constitutional protections have often been afforded.⁷

Others pressed for judicial recognition of a constitutional right to a clean environment in the existing text of the Constitution, principally through the Ninth Amendment's insistence that the enumeration of certain rights does not "deny or disparage" the recognition of other rights.⁸ The courts, however, were not receptive.⁹ There is no prospect for the foreseeable future of embedding in the Constitution a right to a decent environment generally or to protection against environmental degradation.

⁴ See Oliver A. Houck, *Foreword: The Missing Constitution*, in PRINCIPLES OF CONSTITUTIONAL ENVIRONMENTAL LAW xxiii (James R. May ed., 2011).

⁵ *Id.* at xxiv. See also Carole L. Gallagher, *The Movement to Create an Environmental Bill or Rights: From Earth Day, 1970 to the Present*, 9 FORDHAM ENVTL. L. REV. 107, 122-23 (1997) (arguing that legislators believed that federal legislation precluded the need for a constitutional amendment).

⁶ Houck, *supra* note 4, at xxiv.

⁷ See ROBERT L. GLICKSMAN ET AL., ENVIRONMENTAL PROTECTION: LAW AND POLICY 51 (6th ed. 2011).

⁸ U.S. CONST. amend. IX. See WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW 64 (2d ed. 1994).

⁹ See, e.g., *Ely v. Velde*, 451 F.2d 1130 (4th Cir. 1971); *Tanner v. Armco Steel Corp.*, 340 F. Supp. 532, 535 (S.D. Tex. 1972); *Envtl. Def. Fund v. Corps of Eng'rs*, 325 F. Supp. 728, 739 (E.D. Ark. 1971).

The federal environmental statutes also lack rights-based protections as they generally do not provide mechanisms to compensate injured individuals. The provision that comes closest to recognizing individual environmental rights is the National Environmental Policy Act's recitation "that each person should enjoy a healthful environment."¹⁰ That provision, however, has been ignored by the courts and, along with the rest of NEPA, given no substantive content.¹¹ Indeed, Congress considered but refused to enact a version of that provision that would have "recognize[d] that each person has a fundamental and inalienable right to a healthful environment" precisely because it wanted to avoid creation of a right that would lead to legal claims.¹²

B. Environmental Rights under State Law

Efforts to constitutionalize a right to environmental protection have met with more success in the states. According to one account, about half of the states recognize environmental concern as an important policy or purport to provide a basic civil right to a quality environment.¹³ Montana's constitution, discussed below, probably contains the strongest environmental provision found in any state.¹⁴ Often, however, enforcement of these state constitutional rights is contingent on legislative implementation.¹⁵

Common law decisionmaking by state courts provides another basis for protecting individuals from environmental harms. The justifications for abating and redressing environmental harms differ depending on the theory pursued. Negligence liability is fault-based and is imposed on those whose breach of an applicable duty of care results in injury to the plaintiff. Trespass is clearly rights-based, but the right protected is a landowner's right to exclusive possession, not a right to a decent environment or to be protected against threats to one's health.¹⁶ Many courts and scholars regard nuisance law as rooted in utilitarian principles that determine liability by assessing which party to a dispute can avoid it at the least cost.¹⁷ Others argue that private nuisance law functions to protect basic human rights such as health and the right to be left alone in one's living

¹⁰ 42 U.S.C. § 4331(c) (2006).

¹¹ See Philip Michael Ferester, *Revitalizing the National Environmental Policy Act: Substantive Law Adaptations from NEPA's Progeny*, 16 HARV. ENVTL. L. REV. 207, 208 (1992); Lucia A. Silecchia, *Environmental Ethics from the Perspective of NEPA and Catholic Social Teaching: Ecological Guidance for the Twenty-First Century*, 28 WM. & MARY ENVTL. L. & POL'Y REV. 659, 796 (2004).

¹² Oliver A. Houck, *Is that All? A Review of the National Environmental Policy Act, An Agenda for the Future*, by Lynton Keith Caldwell, 11 DUKE ENVTL. L. & POL'Y F. 173, 182 (2000).

¹³ James R. May & William Romanowicz, *Environmental Rights in State Constitutions*, in PRINCIPLES OF CONSTITUTIONAL ENVIRONMENTAL LAW 306 (James R. May ed., 2011). For a complete listing of state constitutional provisions recognizing environmental rights, see *id.* at 315-21.

¹⁴ Montana Env'tl. Info. Ctr. v. Montana Dep't of Env'tl. Quality, 988 P.2d 1236, 1248 (Mont. 1999).

¹⁵ May & Romanowicz, *supra* note 13, at 313. See, e.g., Robb v. Shockoe Slip Found., 228 Va. 678, 324 S.E.2d 674 (1985); Commonwealth v. National Gettysburg Battlefield Tower, Inc., 311 A.2d 588 (Pa. 1973).

¹⁶ See Eric R. Claeys, *Jefferson Meets Coase: Land-Use Torts, Law and Economics, and Natural Property Rights*, 85 NOTRE DAME L. REV. 1379, 1419 (2010) (describing trespass as a "rights-based tort").

¹⁷ See RESTATEMENT (SECOND) OF TORTS § 826 (balancing gravity of the plaintiff's harm against the utility of the defendant's conduct to determine liability in a private nuisance action).

space.¹⁸ Private nuisance cases reflect a mix of the utilitarian and rights-based approaches, but in any event, protects only those with interests in land.¹⁹ Public nuisance, which is not linked to property ownership, is designed to protect a broader range of community rights to health, safety, and welfare.²⁰

Even if common law actions reflect rights-based protections, however, they are incapable of providing the kind of broad-based governmental duties that constitutional law provides. These actions are by definition piecemeal and liability against the government may be impeded by sovereign immunity.

III. THE ORIGINS AND CONTENT OF NONDEGRADATION AND ANTI-BACKSLIDING PROGRAMS FOR WATER AND AIR POLLUTION

Statutory programs to prevent environmental degradation predate the adoption of the major pollution laws such as the Clean Water Act and the Clean Air Act. Congress eventually endorsed these programs in both statutes, although their scope and legal consequences are not entirely clear, especially under the Clean Water Act. Environmental statutes, and regulations issued by the federal Environmental Protection Agency (EPA), also prohibit backsliding by pollution sources who have complied with regulatory restrictions that are later made less stringent for a larger class of sources.

A. Nondegradation in U.S. Environmental Law

Before the late 1960s, U.S. environmental law was largely a creature of state law. State pollution control programs before the adoption of the Clean Air Act in 1970 and the Federal Water Pollution Control Act in 1972 did not include a nondegradation policy.²¹ But the federal government adopted nondegradation programs for both water and air pollution even before Congress passed those two laws.

1. Nondegradation and Water Pollution Control

Before EPA's creation in 1970, the Department of the Interior adopted guidelines to implement the 1965 Water Quality Act,²² which required all states to adopt water quality standards consisting of use designations (such as drinking or fishing) and water

¹⁸ 1 WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW: AIR AND WATER 30-31 (1986) (stating that “[t]his group views nuisance law as protecting some version of unique human rights”).

¹⁹ See Robert G. Bone, *Normative Theory and Legal Doctrine in American Nuisance Law: 1850 to 1920*, 59 S. CAL. L. REV. 1101, 1226 (1986) (“Utilitarian arguments . . . still vie with arguments from individual right” in resolution of nuisance cases).

²⁰ See, e.g., Randall Abate, *Public Nuisance Suits for the Climate Justice Movement: The Right Thing and the Right*, 85 WASH. L. REV. 197, 201 (2010) (arguing that public nuisance suits can help “secure human rights-based relief for those disproportionately affected by climate change impacts”).

²¹ N. William Hines, *A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clean Air and Clean Water*, 62 IOWA L. REV. 643, 654 (1977).

²² Pub. L. No. 89-234, 79 Stat. 903 (1965).

quality characteristics needed to permit those uses to occur.²³ The guidelines provided that “[i]n no case will standards providing for less than existing water quality be acceptable,” and that standards provide for “[t]he maintenance and protection of quality and use or uses of water now of a higher quality or of a quality suitable for present and potential uses.”²⁴ Unfortunately, enforcement of the guidelines was cursory.²⁵

In 1968, Interior Secretary Stewart Udall endorsed the policy of preventing degradation of existing clean water resources.²⁶ The Secretary’s policy, however, retreated from the absolute protection of existing water quality reflected in the 1966 guidelines.²⁷ It required maintenance of waters whose quality was better than established standards, unless a state could justify degradation based on necessary economic or social development. Degradation would not be allowed, however, to interfere with or injure designated uses then being made or which could be made of those waters.²⁸

Despite the weakening of the 1966 guidelines, state governors and the U.S. Chamber of Commerce complained that a nondegradation policy would unreasonably restrict economic development and state enforcement of the guidelines lagged.²⁹ By the time Congress adopted the modern Clean Water Act in 1972, the water quality standards of all fifty states nominally included versions of a nondegradation policy statement, but in most states, nondegradation was little more than an unimplemented objective.³⁰

The 1972 law said nothing about nondegradation policy. EPA, which had taken over control of federal water quality programs, took the position that a nondegradation policy was “consistent with the spirit, intent, and goals of the Act,” especially the goal of restoring and *maintaining* the chemical, physical and biological integrity of the Nation’s waters.³¹ EPA refined the policy in 1975, creating the requirements that, with few changes, remain in place today.³² In 1987, Congress cryptically addressed

²³ GLICKSMAN ET AL., *supra* note 7, at 553.

²⁴ Hines, *supra* note 21, at 658.

²⁵ See Mary A. Stitts, Note, *The Ever-Changing Balance of Power in Interstate Water Pollution: Do Affected States Have Anything to Say After Arkansas v. Oklahoma*, 50 WASH. & LEE L. REV. 1341, 1356 (1993).

²⁶ Lauren Kalisek, *The Principle of Antidegradation and Its Place in Texas Water Quality Permitting*, 41 TEX. ENVTL. L.J. 1, 4 (2010). See also Jeffrey M. Gaba, *Federal Supervision of State Water Quality Standards Under the Clean Water Act*, 36 VAND. L. REV. 1167, 1189-90 (1983) [hereinafter Gaba, *Federal Supervision*]; Michael C. Blumm & William Warnock, *Roads Not Taken: EPA vs. Clean Water*, 33 ENVTL. L. 79, 104 (2003).

²⁷ Hines, *supra* note 21, at 659.

²⁸ Kalisek, *supra* note 26, at 5-6. See 40 Fed. Reg. 55340 (Nov. 28, 1975).

²⁹ Michael Snyder, Note, *Nondegradation of Water Quality: The Need for Effective Action*, 50 NOTRE DAME L. REV. 890, 893, 897 (1975).

³⁰ Hines, *supra* note 21, at 659-60.

³¹ 33 U.S.C. § 1251(a) (2006). See EPA, Questions and Answers on Antidegradation 1 (Aug. 1985) [hereinafter Qs & As].

³² 40 C.F.R. § 131.12. For discussion of the policy, see John Harleston, *What Is Antidegradation Policy: Does Anyone Know?*, 5 S.C. ENVTL. L.J. 33, 47 (1996); John L. Horwich, *Water Quality Nondegradation in Montana: Is Any Deterioration Too Much?*, 14 PUB. LAND L. REV. 145, 158-60 (1993).

nondegradation of water quality for the first time, providing that for waters whose quality exceeds levels necessary to protect the designated use, any effluent limitation based on a total maximum daily load³³ may be revised only if the revision “is subject to and consistent with the anti-degradation policy established under this section.”³⁴ The statute, which still governs nondegradation policy, simply incorporates by reference EPA’s prior administrative policy.³⁵

A state’s anti-degradation policy is part of the water quality standards it must adopt and enforce.³⁶ EPA regulations currently provide that each state must adopt an anti-degradation policy that includes three elements. First, existing instream water uses and the level of water quality necessary to protect those uses must be maintained and protected. According to the Supreme Court, the CWA’s anti-degradation policy requires that “state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation.”³⁷ Second, the state must maintain water quality that exceeds levels necessary to support propagation of fish and wildlife, and water recreation,³⁸ unless allowing lower water quality is necessary to accommodate important economic or social development. Even then, water quality standards must fully protect existing uses. In addition, the state must assure achievement of the highest statutory and regulatory requirements for all point sources and all cost-effective and reasonable best management practices for nonpoint sources. Third, the state must maintain quality in high quality waters that constitute an “outstanding National resource,” including waters of national and state parks and wildlife refuges and waters of “exceptional recreational or ecological significance.”³⁹ In short, the policy requires different levels of protection for three types of waters. Under Tier 1, existing *uses* must be maintained in all waters. Under Tier 2, for high-quality waters that exceed fishable/swimmable quality, degradation of water *quality* will be allowed only if it is necessary to accommodate important social or economic development in the region. Degradation of water quality is completely prohibited for Tier 3, Outstanding National Resource Waters.⁴⁰

The anti-degradation policy may affect states administering the Clean Water Act or discharging sources in several circumstances. States must review and, if appropriate, revise their water quality standards at least once every three years. Any such revisions

³³ A total maximum daily load is the maximum aggregate pollution loading that the receiving water is capable of assimilating without violating applicable water quality standards by creating excessive pollutant concentrations or interfering with designated uses. GLICKSMAN ET AL., *supra* note 7, at 627.

³⁴ 33 U.S.C. § 1313(d)(4)(B) (2006).

³⁵ Jeffrey Gaba, *New Sources, New Growth and the Clean Water Act*, 55 ALA. L. REV. 651, 672 (2004) [hereinafter *New Growth*]. See also PUD No. 1 of Jefferson County v. Washington Dep’t of Ecology, 511 U.S. 700, 718 (1994).

³⁶ PUD No. 1 of Jefferson County v. Wash. Dep’t of Ecology, 511 U.S. 700, 718-19 (1994).

³⁷ *Id.* at 705. See also Qs & As, *supra* note 31, at 3 (stating that “no activity is allowable . . . which could partially or completely eliminate any existing use”).

³⁸ Aside from an unrealistic no discharge goal, the Clean Water Act’s primary goal is to achieve, wherever attainable, “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water” 33 U.S.C. § 1251(a)(2) (2006).

³⁹ 40 C.F.R. § 131.12(a).

⁴⁰ Kalisek, *supra* note 26, at 9.

must comply with the anti-degradation policy. If a state issues a discharge permit for a point source which violates the antidegradation policy, EPA may veto the permit.⁴¹ EPA also may disapprove total maximum daily loads that violate the policy. The Act requires those seeking a federal license or permit to conduct an activity which may result in a discharge (such as operation of a hydropower plant or the filling of waters) to provide the federal permitting authority with a certification that the discharge will comply with state water quality standards. Without such a certification, the federal agency may not issue the license or permit.⁴² Activities covered by this certification requirement include discharges requiring a Clean Water Act permit in a state in which EPA, rather than a state, administers the permit program.⁴³ If a state issues a certification for an EPA-issued discharge permit which fails to comply with the anti-degradation policy, EPA may add more stringent effluent limitations to ensure compliance with the policy.⁴⁴ If a state fails to adopt an anti-degradation policy, EPA may adopt one for the state.⁴⁵

The Clean Water Act's anti-degradation policy is not a precise set of instructions to EPA or the states.⁴⁶ Its application has been described as "at best, obscure," and as lacking in substantive content.⁴⁷ One important question is whether the policy is designed to protect existing *uses* or existing *water quality*. The answer seems to be both, but in different circumstances. The Tier 1 provisions are directed at protection of existing uses, while the Tier 2 component aims to protect the quality of high quality waters.⁴⁸ Tier 3 also focuses on protection of water quality.

Another question is how to define degradation that violates the policy. According to one critic, EPA's regulations fail to recognize the relevance of that question.⁴⁹ EPA apparently allows states to invoke Tier 2 protections when activities result in "significant" degradation" of water quality, invoking the agency's inherent authority to

⁴¹ 33 U.S.C. § 1342(d) (2006).

⁴² 33 U.S.C. § 1341(a) (2006).

⁴³ Most states have received EPA approval to administer at least portions of the Clean Water Act's National Pollutant Discharge Elimination System permit program. EPA, State Program Status, <http://cfpub.epa.gov/npdes/statestats.cfm>.

⁴⁴ Qs & As, *supra* note 31, at 2.

⁴⁵ *Id.* at 1. States may allow other activities to trigger anti-degradation review, such as non-point source pollution. Kent Modesitt, *Antidegradation: A Lost Cause or the Next Cause?*, 2 U. DENV. WATER L. REV. 189, 193-94 (1999).

⁴⁶ Harleston, *supra* note 32, at 52-53 ("In its almost thirty years of existence, few details of implementing antidegradation have been expressed.").

⁴⁷ Jeffrey M. Gaba, *Generally Illegal: NPDES General Permits Under the Clean Water Act*, 31 HARV. ENVTL. L. REV. 409, 454 (2007) [hereinafter Gaba, *General Permits*]. See also Robert W. Adler, *Integrated Approaches to Water Pollution: Lessons from the Clean Air Act*, 23 HARV. ENVTL. L. REV. 203, 292 (1999) ("the current [CWA antidegradation] program . . . is so vague as to defy clear explanation").

⁴⁸ Gaba, *Federal Supervision*, *supra* note 26, at 1192.

⁴⁹ Harleston, *supra* note 32, at 57.

avoid regulating de minimis environmental threats.⁵⁰ State definitions of the point at which water quality impairment triggers anti-degradation review are inconsistent.⁵¹

The policy is also less than clear in distinguishing among the three tiers of waters it covers. It does not provide adequate guidance on how to distinguish Tier 1 and Tier 2 waters.⁵² Likewise, the definition of Outstanding National Resource Waters is unclear.⁵³ EPA has left ONWR designation to state discretion, which some believe has provided inadequate protection to some of the nation's most important aquatic resources.⁵⁴

Another flaw in the policy is its failure to describe when Tier 2 high-quality waters may be degraded "to accommodate important economic or social development."⁵⁵ Absent constraints, this exception to the prohibition on degradation threatens to swallow the rule.⁵⁶ According to EPA, the phrase seeks to convey "a general concept regarding what level of social and economic development could be used to justify a change in high quality waters. Any more exact meaning will evolve through case-by-case application" by the state.⁵⁷ The burden of demonstrating economic necessity "will be very high."⁵⁸

According to one assessment, EPA's proclivity for leaving the anti-degradation policy vague, and for affording broad implementation discretion to the states, has precluded the development of a consistent national anti-degradation policy.⁵⁹ In addition to the resulting inconsistencies, troublesome gaps have developed, including exclusion of important pollution sources. Montana, among other states, exempted nonpoint sources from the program.⁶⁰ EPA once took the position that "[n]onpoint source activities are not exempt from the provisions of the antidegradation policy."⁶¹ In this case, however, it approved Montana's exemption, and a court approved. Noting that EPA lacks the authority to regulate nonpoint source discharges, the court upheld as reasonable EPA's determination that Montana properly exempted nonpoint source discharges from anti-

⁵⁰ Gaba, *New Growth*, *supra* note 35, at 677. See *Ohio Valley Envtl. Coal. v. Horinko*, 279 F. Supp. 2d 732, 767-68 (S.D. W. Va. 2003). See also Modesitt, *supra* note __, at 217 (noting that EPA regional office supported the use of a significance determination).

⁵¹ See Modesitt, *supra* note 45, at 217 (noting that state approaches vary).

⁵² Gaba, *General Permits*, *supra* note 47, at 454. See also Gaba, *New Growth*, *supra* note 35, at 675 ("Unfortunately, the difference between Tier 1 and Tier 2 waters may, in many cases, be more metaphysical than biological.").

⁵³ John A. Chilson, *Keeping Clean Waters Clean: Making the Clean Water Act's Antidegradation Policy Work*, 32 U. MICH. J. L. REFORM 545, 553-55 (1999).

⁵⁴ Adler, *supra* note 47, at 287.

⁵⁵ See Katherine Zogas, Comment, *The Clean Water Act's Antidegradation Policy: Has It Been "Dumped"?*, 42 J. MARSHALL L. REV. 209, 229-30 (2008); Gaba, *New Growth*, *supra* note 35, at 686.

⁵⁶ Stitts, *supra* note 25, at 1359.

⁵⁷ Qs & As, *supra* note 31, at 8.

⁵⁸ Kalisek, *supra* note 26, at 12 (quoting EPA, *Water Quality Standards Handbook*, at § 4.5 (2d ed. 1993)).

⁵⁹ Harleston, *supra* note 32, at 77.

⁶⁰ Other states have taken the same approach. See Douglas R. Williams, *When Voluntary, Incentive-Based Controls Fail: Structuring a Regulatory Response to Agricultural Nonpoint Source Water Pollution*, 9 WASH. U. J.L. & POL'Y 21, 40 (2002).

⁶¹ Qs & As, *supra* note 31, at 6.

degradation review.⁶² This left high-quality waters in rural areas unprotected from major sources of water pollution, a result arguably inconsistent with the Act's goal of preserving and restoring the integrity of the nation's waters.⁶³ The court's decision means there is no effective mandatory control over nonpoint source pollution affecting high-quality streams. The anti-degradation policy also may fail to protect against cumulative effects of multiple discharges that impair existing water quality.⁶⁴

2. *Nondegradation and Air Pollution Control*

Before EPA's creation, the Department of Health, Education and Welfare (HEW) adopted nondegradation guidelines for air quality under the Air Quality Act of 1967.⁶⁵ That Act directed the states, subject to HEW's approval, to adopt ambient air quality standards defining the maximum levels of pollution needed to maintain public health.⁶⁶ The guidelines stated that standards resulting in significant deterioration of air quality would conflict with the statutory purpose to "protect and enhance" air quality.⁶⁷

When Congress adopted the Clean Air Act in 1970, it transferred responsibility to adopt air quality standards to EPA,⁶⁸ leaving the states responsible for achieving the standards through state implementation plans (SIPs) that imposed enforceable emission limitations on individual sources.⁶⁹ EPA insisted that it lacked the authority under the Act to adopt nondegradation rules.⁷⁰ In *Sierra Club v. Ruckelshaus*,⁷¹ an environmental group challenged EPA's refusal to require SIPs to prevent degradation in existing clear air areas. The district court ruled for the plaintiffs, reasoning that the statutory purpose "to protect and enhance" air quality to promote public health and welfare reflected Congress' intent "to improve the quality of the nation's air and to prevent deterioration of that air quality, no matter how presently pure that quality in some sections of the country happens to be."⁷² EPA's decision to allow the states to submit SIPs that lacked nondegradation protections was therefore invalid. The decision was upheld on appeal.

In 1974, EPA issued regulations requiring states to conform their SIPs to a new PSD program to prevent significant deterioration of clean air resources.⁷³ The regulations provided for three classes of areas with air cleaner than required by the

⁶² *Am. Wildlands v. Browner*, 260 F.3d 1192, 1198 (10th Cir. 2001).

⁶³ Blumm & Warnock, *supra* note 26, at 108-09.

⁶⁴ See Adler, *supra* note 47, at 285.

⁶⁵ Pub. L. No. 90-148, 81 Stat. 485.

⁶⁶ GLICKSMAN ET AL., *supra* note 7, at 401.

⁶⁷ Hines, *supra* note 21, at 660.

⁶⁸ 42 U.S.C. §§ 7408-7409 (2006).

⁶⁹ *Id.* § 7410.

⁷⁰ Hines, *supra* note 21, at 663; Richard B. Stewart, *The Development of Administrative and Quasi-Constitutional Law in Judicial Review of Environmental Decisionmaking: Lessons from The Clean Air Act*, 62 IOWA L. REV. 713, 743 (1977) [hereinafter Stewart, *Quasi-Constitutional Law*].

⁷¹ 344 F. Supp. 253 (D.D.C. 1972), *aff'd without opinion*, 4 Env't Rep. Cas. 1815 (D.C. Cir. 1972), *aff'd by an equally divided court* sub nom. *Fri v. Sierra Club*, 412 U.S. 541 (1973).

⁷² *Id.* at 255.

⁷³ 39 Fed. Reg. 42509 (Dec. 5, 1974).

national ambient air quality standards for particulate matter and sulfur dioxide, and prescribed increments of allowable deterioration which were greatest in Class III areas and smallest in Class I areas. In Class II areas, deterioration accompanying moderate growth would be considered insignificant. Environmental groups, regulated sources, and some states challenged the regulations, but the court upheld them.⁷⁴

Following judicial approval of EPA's new PSD program, Congress amended the Clean Air Act in 1977 and codified the program, which remains in effect today.⁷⁵ The statute requires every SIP to include emission limitations and other measures to prevent significant deterioration of air quality in areas with quality better than required by the national ambient air quality standards. The statute requires that certain national parks and wilderness areas be designated as mandatory Class I areas. All other PSD areas are designated as Class II, but the states may redesignate them to Class I or Class III (with some restrictions). The statute specifies the permissible amount of deterioration of particulate matter and sulfur dioxide for all three classes, with the largest increments of deterioration applying to Class III areas and the smallest to Class I areas.⁷⁶ The increments are calculated as percentages of the national ambient air quality standards.

A permit program for stationary sources (called new source review) provides the main mechanism for protecting existing clean air resources. No new or modified major emitting facility may be constructed in a PSD area unless it has received a permit from the state in which it is located. A permit applicant must show that its emissions will not cause or contribute to significant deterioration of existing clean air resources by exceeding the applicable PSD increment or the national ambient air quality standards.⁷⁷ In addition, permit holders must use the best available pollution control technology, determined on a source-by-source basis, taking into account energy, environmental, and economic impacts.⁷⁸ The PSD program thus seeks to force sources to cut emissions through improved pollution controls or changes in production processes.⁷⁹ Unlike the Clean Water Act policy, the program creates "an antidegradation standard that is clear, precise, and objective with a narrow range of permissible interpretations."⁸⁰

B. Anti-backsliding in U.S. Environmental Law

⁷⁴ *Sierra Club v. EPA*, 540 F.2d 1114 (D.C. Cir. 1976), *cert. granted* sub nom. *Montana Power Co. v. EPA*, 430 U.S. 953 (1977), *cert. denied*, 430 U.S. 959 (1977), *vacated and remanded for reconsideration*, 434 U.S. 809 (1977).

⁷⁵ Craig N. Oren, *Prevention of Significant Deterioration: Control-Compelling Versus Site-Shifting*, 74 IOWA L. REV. 1, 4 (1988) [hereinafter *Control-Compelling*]; Stewart, *Quasi-Constitutional Law*, *supra* note 70, at 745. For discussion of the PSD provisions, see Craig N. Oren, *Clearing the Air: The McCubbins-Noll-Weingast Hypothesis and the Clean Air Act*, 9 VA. ENVTL. L.J. 45 (1989); John-Mark Stensvaag, *Preventing Significant Deterioration under the Clean Air Act: Area Classification, Initial Allocation, and Redesignation*, 41 ENVTL. L. REP. 10008 (2011).

⁷⁶ 42 U.S.C. §§ 7471-7474 (2006).

⁷⁷ *Id.* § 7475(a)(1), (3); Oren, *Control-Compelling*, *supra* note 75, at 39-40.

⁷⁸ 42 U.S.C. §§ 7475(a)(4), 7479(3) (2006).

⁷⁹ Oren, *Control-Compelling*, *supra* note 75, at 29.

⁸⁰ Stitts, *supra* note 25, at 1368.

Anti-backsliding differs from nondegradation. Degradation involves changes in ambient quality, while backsliding relates to changes in permitted discharge limits.⁸¹ Anti-backsliding restrictions preclude regulators from loosening control requirements on sources that have already proved capable of complying with more stringent controls.

Environmental statutes are typically designed to improve environmental quality over time. The Clean Water Act seeks to reach its ultimate goal of eliminating all point source discharges and its interim goal of fishable-swimmable water quality⁸² by requiring regulated sources to comply with increasingly stringent discharge controls.⁸³ Likewise, a principal Clean Air Act goal is to “enhance the quality of the Nation’s air resources,”⁸⁴ and the statute strives to improve air quality in nonattainment areas that have air quality worse than what is required to protect the public health and welfare.⁸⁵ Yet, as one court has indicated, pollution controls do not invariably become more stringent. “In some instances new restrictions are more lax than old ones covering equivalent effluents. This raises the question of what happens when a permit holder asks, at the time of renewal or reissuance, to get the benefit of the new rule – to ‘backslide.’”⁸⁶ Both water and air pollution laws in the U.S. limit backsliding.

1. *Anti-Backsliding and U.S. Water Pollution Control*

The Clean Water Act authorizes EPA to issue enforceable effluent limitations for classes of point sources based on the best available control technology for the class.⁸⁷ Because adopting regulations for all point source categories was a lengthy process, however, Congress authorized permit-issuing agencies to impose source-specific limitations determined on the basis of the exercise of the agency’s best professional judgment (BPJ).⁸⁸ When EPA issued regulations containing category-wide effluent limitations that were less stringent than those found in BPJ permits for sources in that industry, the question became whether a permitting agency could amend the BPJ permit by substituting the less stringent regulatory limitation.⁸⁹ For the most part, EPA said no.

EPA adopted its first anti-backsliding rule in 1979.⁹⁰ Congress codified EPA’s policy in the 1987 amendments to the Clean Water Act at the same time as it endorsed EPA’s anti-degradation policy. The Act generally prohibits EPA from allowing permit holders to backslide from BPJ-based discharge limitations or limitations imposed to

⁸¹ Mark C. Van Putten, *The Dilution of the Clean Water Act*, 19 U. MICH. J.L. REF. 863, 895 (1986).

⁸² 33 U.S.C. § 1251(a) (2006).

⁸³ *Id.* §§ 1311(b), 1314(b).

⁸⁴ 42 U.S.C. § 7401(b)(1) (2006).

⁸⁵ *Id.* §§ 7501-7515.

⁸⁶ *Natural Res. Def. Council, Inc. v. EPA*, 859 F.2d 156, 219 (D.C. Cir. 1988).

⁸⁷ 33 U.S.C. §§ 1311(b), 1314(b) (2006); *E.I du Pont de Nemours & Co. v. Train*, 430 U.S. 112 (1977).

⁸⁸ 33 U.S.C. § 1342(a)(1)(B) (2006).

⁸⁹ Van Putten, *supra* note 81, at 883.

⁹⁰ 44 Fed. Reg. 32854 (1979); 33 C.F.R. § 122.15(i) (1986).

comply with state water quality standards.⁹¹ Backsliding is allowed if a discharger has been unable to meet the effluent limits in its permits despite installation and maintenance of the required control technology, facility alterations or additions justify a less stringent limitation, new information is available that would have justified a less stringent limitation, or events over which the permit holder has no control and for which no reasonable remedy is available justify backsliding.⁹² A reissued permit may never contain effluent limitations less stringent than the applicable regulatory limitations for that industry. Backsliding is also forbidden if it could cause violation of a state water quality standard, including the anti-degradation policy.⁹³ Thus, the anti-backsliding provisions supplement and support the anti-degradation program.⁹⁴

2. *Anti-Backsliding and U.S. Air Pollution Control*

The Clean Air Act also limits backsliding. If EPA relaxes an ambient air quality standard, it must still require controls not less stringent than the controls applicable to areas designated nonattainment before the relaxation.⁹⁵ Similarly, no control requirement in effect or required by a SIP that was in effect before the 1990 amendments in any nonattainment area may be modified “unless the modification insures equivalent or greater emission reductions” of the pollutant for which the area is nonattainment.⁹⁶

IV. NON-RIGHTS-BASED JUSTIFICATION FOR NONDEGRADATION DUTIES IN U.S. ENVIRONMENTAL LAW

Although nondegradation laws could be based on individual rights to a clean environment, neither Congress nor EPA has offered that rationale as the basis for adopting them. Instead, the justifications advanced for nondegradation provisions include providing a margin of safety to offset the risk that regulations will not provide the desired level of protection, protecting special value natural resources, preventing the movement of industry to areas with superior environmental quality, preventing interstate pollution, and preserving opportunities for future economic growth. Anti-backsliding provisions seek to force regulated sources to achieve the highest level of pollution control of which they are capable.

A. Nondegradation and Non-Rights-Based Justifications

⁹¹ 33 U.S.C. § 1342(o)(1) (2006). EPA’s implementing regulations are at 40 C.F.R. § 122.44 (l)(2). See generally Melissa A Thorne, *Antibacksliding: Understanding One of the Most Misunderstood Provisions of the Clean Water Act*, 31 *Env’tl. L. Rep.* 10322 (2001). For a slide presentation on the operation of the CWA’s anti-backsliding rules prepared by EPA, see http://www.crwpp.org/pdf_files/antibacksliding.pdf.

⁹² 33 U.S.C. § 1342(o)(2) (2006).

⁹³ *Id.* § 1342(o)(3). The statute also precludes backsliding in waters that do not yet comply with state water quality standards. See *id.* § 1313 (d)(4)(A).

⁹⁴ Walter G. Wright, Jr., *The Federal/Arkansas Water Pollution Control Programs: Past, Present, and Future*, 23 *U. ARK. LITTLE ROCK L. REV.* 541, 624 n.508 (2001).

⁹⁵ 42 U.S.C. § 7502(e) (2006).

⁹⁶ *Id.* § 7515. See Casey Roberts, *New York v. EPA: State Response to a Federal Regulatory Rollback*, 33 *ECOLOGY L.Q.* 613 (2006).

1. *Nondegradation to Provide a Margin of Safety*

The Clean Air and Water Acts both require the adoption of ambient quality standards to provide a minimally acceptable level of environmental quality. The Air Act requires that EPA adopt primary standards that are requisite to protect the public health with an adequate margin of safety and secondary standards that protect the public welfare from known or anticipated adverse effects associated with air pollution.⁹⁷ The Water Act requires states to adopt water quality standards that assure that pollutant concentrations will protect designated uses.⁹⁸ Both sets of standards establish maximum permissible concentrations of pollutants in the air or water, expressed quantitatively or narratively.

Environmental regulation often proceeds in the face of scientific uncertainty. As a result, regulators may determine that a particular concentration level is sufficient to achieve the desired level of protection, only to discover later that adverse effects occur at lower pollution concentrations than once believed. EPA has amended the national ambient air quality standards for pollutants such as lead and ozone by lowering the maximum permissible pollutant concentrations because the pre-existing standards were not as protective as the agency once believed or as the law requires.

Nondegradation rules can protect against the risk that ambient standards are not as protective as the agency assumed when it adopted them; they can protect against misjudgments about the scope of environmental risk. The Clean Air Act's PSD program was adopted with this function, among others, in mind. The program's purposes include protecting public health "from any actual or potential adverse effect which in [EPA's] judgment may reasonably be anticipated to occur from air pollution . . . notwithstanding attainment and maintenance of all national ambient air quality standards."⁹⁹

Legislators in 1977 were wary of relying on the identification of harmless concentrations of air pollution and suspected that the only way to eliminate health risks would be to set ambient standards at zero. Not willing to go that far, supporters of the PSD program sought to minimize risk by keeping pollutant concentrations lower than required by air quality standards in areas that already had clean air.¹⁰⁰ The program would provide a "margin of safety" if pollution actually caused harm at concentrations lower than any threshold levels identified by EPA or if EPA refused for economic reasons to tighten the standards despite new evidence that existing standards were not sufficiently protective.¹⁰¹ PSD's supporters also argued that the program was necessary because the national standards did not cover damaging pollutants such as sulfates that

⁹⁷ 42 U.S.C. § 7409(b) (2006).

⁹⁸ 33 U.S.C. § 1313(c) (2006).

⁹⁹ 42 U.S.C. § 7470(1) (2006).

¹⁰⁰ David P. Currie, *Nondegradation and Visibility Under the Clean Air Act*, 68 CALIF. L. REV. 48, 77 (1980).

¹⁰¹ See Oren, *Control-Compelling*, *supra* note 75, at 64.

cause acid rain and failed to account for the synergistic effects of multiple pollutants.¹⁰² Accordingly, nondegradation requirements amount to an indirect attack on the adequacy of existing ambient quality standards.¹⁰³

2. *Nondegradation to Protect High-Value Natural Resources*

A second function of nondegradation constraints is to protect highly valued natural resources that may be at risk from exposure to pollutant concentrations that are lower than those needed to protect public health. Both the Clean Air and Water Act programs seek to promote that goal. U.S. nondegradation policy can be viewed “as the pollution control analogue to wilderness protection in public lands management.”¹⁰⁴ While nondegradation policy in the pollution context is not as restrictive as constraints on use of wilderness areas under the Wilderness Act of 1964, nondegradation policy and wilderness protection reflect a common preservationist impulse.

One of the purposes of the Clean Air Act’s PSD program is to preserve, protect, and enhance air quality in national parks, monuments, seashores, and wilderness areas, as well as other areas of “special” natural, recreational, scenic, or historic value.¹⁰⁵ The Act provides for both primary, health-based air quality standards and secondary, welfare-based standards. Because adverse effects on welfare may occur at concentrations lower than those that trigger health risks, the secondary standards generally will be more stringent than the primary standards.¹⁰⁶ Even then, secondary standards may not be adequate to protect particularly vulnerable resources, or EPA may have underestimated how clean the air needs to be to protect those resources.

During congressional debate, supporters of the PSD program emphasized the benefits of protecting parks from air pollution, claiming that preservation of clean air quality would prevent damage that would occur even at pollution concentrations allowed by the national ambient air quality standards.¹⁰⁷ Degradation of air quality in national parks and wilderness areas would interfere with scenic vistas in places like the Grand Canyon or damage unique natural resources, frustrating the opportunities for preservation, recreation, and spiritual renewal that justified creation of the national parks and other protected areas.¹⁰⁸ The Clean Water Act’s anti-degradation policy serves the same function through its prohibition on water quality degradation in Outstanding National Resource Waters. Enhanced protections are particularly critical if resource

¹⁰² *Id.* at 60, 82.

¹⁰³ Stewart, *Quasi-Constitutional Law*, *supra* note 70, at 742 n.144.

¹⁰⁴ Hines, *supra* note 21, at 645.

¹⁰⁵ 42 U.S.C. § 7470(2). See generally Craig N. Oren, *The Protection of Parklands from Increased Air Pollution: A Look at Current Policy*, 13 HARV. ENVTL. L. REV. 313 (1989) [hereinafter Oren, *Parklands*].

¹⁰⁶ DAVID WOOLEY & ELIZABETH MORSS, CLEAN AIR ACT HANDBOOK, Appendix C (2011). In practice, EPA rarely establishes separate secondary standards. See GLICKSMAN ET AL., *supra* note 7, at 406.

¹⁰⁷ Oren, *Parklands*, *supra* note 105, at 329.

¹⁰⁸ *Id.* at 315, 346-47.

damage is expected to be irreversible or would interfere with the broader functioning of critical ecosystem services.¹⁰⁹

3. *Nondegradation to Prevent the Development of Pollution Havens*

Without a nondegradation policy, areas with relatively clean air or water quality would have a greater capacity to assimilate pollution without violating applicable ambient standards than would more polluted areas. Under both the Clean Air and Water Acts, pollution control requirements tend to be most stringent in highly polluted areas that are in violation of ambient quality standards. The Clean Air Act imposes rigorous controls on pollution sources in nonattainment areas,¹¹⁰ and the stringency of the controls tends to increase in relation to the degree of noncompliance.¹¹¹ The Clean Water Act requires states whose waters are more polluted than state water quality standards allow to establish TMDLs that result in stringent aggregate effluent limitations for sources dumping into those impaired waters.¹¹² Absent nondegradation programs, new industrial sources with choices about where to locate (putting other factors aside) would tend to choose areas with less stringent pollution controls to reduce costs of operation.¹¹³ The result would be not only degradation of existing good environmental quality, but also an exodus of business from industrialized areas with high levels of pollution to more remote, cleaner areas. One would expect politicians representing industrialized areas to try to remove regulatory incentives that would likely result in a loss of jobs and tax revenues.

Nondegradation provisions can prevent “pollution havens” by removing incentives that would drive industry to clean areas if they were allowed to deteriorate to minimal levels required by ambient standards. They can prevent states in a federal system from selecting suboptimal environmental quality levels due to market failure. A state would be unlikely to adopt pollution controls needed to prevent deterioration of good environmental quality even if the national interest would benefit from doing so because of a classic prisoner’s dilemma. States with high air quality would bear most of the costs of maintaining it, while recouping only a small portion of the benefits.¹¹⁴ “Each state, fearing undercutting by a state competing for economic development, would be reluctant to adopt a potentially disabling policy absent some assurance about what other states intended to do. All states would thus be paralyzed to act.”¹¹⁵

¹⁰⁹ See, e.g., ROBERT W. ADLER, JESSICA C. LANDMAN & DIANE M. CAMERON, *THE CLEAN WATER ACT: 20 YEARS LATER* 200 (1993) (noting that headwater tributaries of larger watersheds can “provide clean base flow and critical spawning and rearing habitat to support downstream flows”).

¹¹⁰ See, e.g., 42 U.S.C. § 7502(c) (2006) (listing requirements for SIPs that cover nonattainment areas).

¹¹¹ See, e.g., *id.* § 7511a.

¹¹² 33 U.S.C. § 1313(d) (2006).

¹¹³ See Snyder, *supra* note 29, at 891-92.

¹¹⁴ Stewart, *Quasi-Constitutional Law*, *supra* note 70, at 747.

¹¹⁵ Hines, *supra* note 21, at 654. See also Stewart, *Quasi-Constitutional Law*, *supra* note 70, at 747 (“In the absence of a nondegradation requirement, ‘clean’ states might compete with one another for new development . . .”).

These concerns motivated Congress to adopt the Clean Air Act's PSD program, as it sought to neutralize the advantages that areas with superior air quality might have in attracting industry. Some commentators attributed the passage of the PSD program in 1977 to an effort by industrialized states to limit economic growth in the Sunbelt.¹¹⁶

4. *Nondegradation to Prevent Interstate Pollution*

The PSD program sought to prevent activities in one state from harming other states in another way. Some PSD supporters claimed that it would reduce interstate pollution from new sources, preventing areas from becoming “‘dumping grounds’ for the pollution caused by industrial sources in other regions.”¹¹⁷ The argument was apparently persuasive. One of the goals of the program is “to assure that emissions from any sources in any State will not interfere with any portion of the applicable implementation program to prevent significant deterioration of air quality for any other State.”¹¹⁸

5. *Nondegradation to Preserve Economic Growth Opportunities*

A related justification is that a nondegradation program is a temporary device to postpone exploitation of good environmental quality until the potential for economic growth justifies the resulting degradation. According to one expert on air pollution law, there is reason to believe that some PSD supporters held this view.¹¹⁹ This argument for postponing exploitation “draws from the conservationist, rather than the preservationist, roots of the environmental movement”¹²⁰ in that the former supported governmental management of natural resource use to maximize economic return over time.¹²¹

B. Anti-Backsliding and Non-Rights-Based Justifications

Anti-backsliding provisions have a different justification, stemming, at least in large part, from the philosophy reflected in the technology-based standards that dominate U.S. pollution laws. Technology-based regulation is designed to commit the nation and particular dischargers to “do the best they can” to reduce environmental harm “by requiring the most protection achievable by current technologies unless ‘costs are disruptive or extraordinary.’”¹²² Senator Birch Bayh explained that the Clean Water Act’s technology-based effluent limitations were designed to “force industry to do the best job it can do to clean up the nation’s water and to keep making progress without

¹¹⁶ Oren, *Control-Compelling*, *supra* note 70, at 105, 111.

¹¹⁷ *Id.* at 85.

¹¹⁸ 42 U.S.C. § 7470(4) (2006).

¹¹⁹ Oren, *Control-Compelling*, *supra* note 70, at 101.

¹²⁰ *Id.* (“[A] conservationist argument for maintaining clean air better than the air quality standards could hold that some restrictions on development now are necessary to assure that future exploitation opportunities are not sacrificed.”).

¹²¹ See Hines, *supra* note 21, at 646.

¹²² See Frank Ackerman & Lisa Heinzerling, *Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection*, 150 U. PA. L. REV. 1553, 1581 (2002) (“Simply put, the idea is that we should do the best we can to mitigate pollution we believe to be harmful.”)

incurring such massive costs that economic chaos would result.”¹²³ This commitment is not rights-based. As two prominent scholars have noted in the context of worker health and safety regulation, “[a]cknowledging that society cannot vest workers with an unqualified right to an absolutely safe workplace, one may rationally assert that workers do have a right to insist that employers ‘do the best they can’ to protect human health.”¹²⁴

Allowing backsliding to occur would be inconsistent with both polluters’ commitment to control discharges to the full extent of their technological capacities and with the statutory goals of enhancing environmental quality over time.¹²⁵ A discharger that has exceeded compliance levels required by across-the-board regulations has demonstrated its technological and economic capabilities to meet the more stringent requirements. The technology-based thrust of the statutes would be frustrated if controls for such a discharger were relaxed simply because EPA or a state agency determined that the industry as a whole was not capable of meeting the more stringent control levels.¹²⁶ Nevertheless, the “do the best you can” rationale does not dictate an absolute ban on backsliding. When Congress decided to codify anti-backsliding requirements in the Clean Water Act in 1987, it chose to allow permit modifications when doing so will not compromise the overall commitment to requiring maximum feasible levels of control. These include cases in which previous permit requirements disproportionately burden a permittee,¹²⁷ facility modifications justify less stringent controls, circumstances beyond the permit holder’s control make compliance impossible, information unavailable at the time of permit issuance indicates that compliance is impossible, or a mistake of fact or law has been discovered.¹²⁸

C. Balancing Environmental Protection and Economic Growth

Nondegradation programs seek to balance protection of existing clean air and water quality and continued economic growth. A goal of the Clean Air Act’s PSD program is to “insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources.”¹²⁹ The level of protection required depends on the classification of a particular PSD area. With the exception of some national parks and other highly protected federal lands, all PSD areas begin as Class 2 areas which do not receive the highest level of protection. States may redesignate PSD areas downward based on economic and social considerations, although the amount of permissible

¹²³ Wendy E. Wagner, *Stormy Regulation: The Problems that Result When Stormwater (and Other) Regulatory Problems Neglect to Account for Limitations in Scientific and Technical Information*, 9 CHAP. L. REV. 191, 200 (2006).

¹²⁴ Sidney A. Shapiro & Thomas O. McGarity, *Not So Paradoxical: The Rationale for Technology-Based Regulation*, 1991 DUKE L.J. 729, 743-44.

¹²⁵ See Max Baumhefner, *The Ozone Saga*, 35 ECOLOGY L.Q. 557, 572 (2008).

¹²⁶ Van Putten, *supra* note 81, at 890-91.

¹²⁷ NRDC v. EPA, 859 F.2d 159, 201 n.101 (D.C. Cir. 1988).

¹²⁸ Claudia Copeland, *Comprehensive Clean Air and Clean Water Permits: Is the Glass Still Just Half Full?*, 21 ENVTL. L. 2135, 2166-67 (1991).

¹²⁹ 42 U.S.C. § 7470(3) (2006).

deterioration is limited even in Class areas.¹³⁰ Under the Clean Water Act's policy, degradation of Tier 2 waters is allowed if necessary to accommodate important social and economic development. Under this approach, "nondegradation policy does not make existing resource quality an absolute minimum."¹³¹ The result is "a flexible, site-specific consideration of the economic justifications and social need for water quality degradation in light of available alternatives and the significance of the predicted degradation."¹³² EPA's failure to define important economic and social development has given states broad discretion to endorse degradation of Tier 2 waters, as long as existing uses are not prevented or state water quality standards otherwise violated.¹³³

Nondegradation policies, then, can be viewed as a way to achieve efficient resource allocation. Degradation is allowed if the value of the economic development that causes it exceeds the resulting marginal decline in the value of the degraded resource. Nondegradation advocates have even couched these programs as job creators, arguing that they create opportunities for new sources and accompanying jobs increases by requiring tighter source controls and low ambient concentrations in clean areas.¹³⁴

V. THE POTENTIAL FOR A RIGHTS-BASED NONDEGRADATION POLICY IN THE U.S.

Although U.S. statutory protections against environmental degradation are not rights-based, several sources of law might provide a foundation for bolstering efforts to build a rights-based model in the U.S. These include constitutional and common law. At present, neither source provides strong support for rights-based nondegradation principles, but the potential for their evolution in that direction exists.

A. Constitutional Theories

Although rights-based arguments for nondegradation programs are not firmly rooted in constitutional principles, they can provide policy support for these programs. The present generation's ethical duty to preserve natural resources from irreversible degradation for the benefit of future generations dates was endorsed by the U.S. conservation movement of the late 19th century.¹³⁵ Nondegradation policy is rooted in the obligation to protect the interests of future generations. As one early observer noted, "[w]hile the nondegradation principle does not rely solely on philosophical grounds for its justification, . . . the ethical force of the idea best explains the actions taken."¹³⁶

By preserving a diversity of environments, nondegradation policy can also promote freedom of expression. Pristine environments can spur spiritual revitalization,

¹³⁰ See *id.* § 7474(b)(1)(A).

¹³¹ Hines, *supra* note 21, at 645.

¹³² Van Putten, *supra* note 81, at 899.

¹³³ ADLER ET AL., *supra* note 109, at 202.

¹³⁴ Oren, *Control Compelling*, *supra* note 70, at 97.

¹³⁵ Hines, *supra*, note 21, at 647.

¹³⁶ *Id.* at 649.

ease the pressures of urban life, and foster aesthetic, social, and political views that differ from those associated with urban life.¹³⁷ Nondegradation policies “vindicate powerful interests in environmental diversity that can persuasively claim to transcend contingent judgments about economic efficiency or subjective value preferences, and that can secure basic values which are implicit in the first amendment.”¹³⁸

Rights-based justifications for nondegradation policies are not merely theoretical. Montana has constitutionalized protections against environmental degradation. Its constitution lists the right to a clean environment as an “inalienable right,” providing:

All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment and the rights of pursuing life’s basic necessities, enjoying and defending their lives and liberties, . . . and seeking their safety, health and happiness in all lawful ways. In enjoying these rights, all persons recognize corresponding responsibilities.¹³⁹

The Montana constitution, endorsing intergenerational equity norms, also provides that “[t]he state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.”¹⁴⁰ It requires the legislature to “provide adequate remedies for the protection of the environmental life support system from degradation and provide adequate remedies to prevent unreasonable depletion and degradation of natural resources.”¹⁴¹ These rights are not absolute. The constitution prohibits only “unreasonable” resource degradation. Similarly, the state’s anti-degradation statute permits degradation of high-quality waters by projects that will result in “important economic or social development.”¹⁴²

The Montana Supreme Court interpreted these provisions in a case in which a private company sought to operate an open-pit gold mine near the confluence of two rivers.¹⁴³ The company requested permission to pump groundwater to help determine the long-term response to dewatering at the project. The water contained arsenic. In challenging the state’s approval, environmental groups sought to require the company to comply with statutory nondegradation requirements by blocking it from increasing arsenic concentrations in the high quality surface waters affected by the project. They also asserted that a statutory waiver of these requirements for certain discharges of water approved by the state agency violated Article IX of the Montana Constitution.

¹³⁷ Stewart, *Quasi-Constitutional Law*, *supra* note 70, at 750.

¹³⁸ *Id.* at 756. Some support allowing states to provide levels of environmental quality *below* federally required levels to preserve a diversity of lifestyle opportunities. *See, e.g.*, Daniel C. Esty, *Revitalizing Environmental Federalism*, 95 MICH. L. REV. 570, 611 (1996) (disagreeing with this approach).

¹³⁹ MONT. CONST. art. II, § 3.

¹⁴⁰ *Id.* art. IX, § 1(1).

¹⁴¹ *Id.* art. IX, § 1(3).

¹⁴² Montana’s nondegradation statute largely tracks EPA’s anti-degradation policy. *See* MONTANA CODE ANN. § 75-5-303.

¹⁴³ *Montana Env’tl. Info. Ctr. v. Dep’t of Env’tl. Quality*, 296 Mont. 207, 988 P.2d 1236 (1999).

The court held that “the right to a clean and healthful environment is a fundamental right because it is guaranteed” by Article II, § 3 of the constitution, and that any statute or rule infringing on that right is valid only if the state shows a compelling state interest and that its action is “closely tailored to effectuate that interest and is the least onerous path that can be taken to achieve the State’s objective.”¹⁴⁴ The court concluded that the environmental provisions of the constitution were designed to be “both anticipatory and preventative.”¹⁴⁵ The rights provided in Article IX, § 1(1) were linked to the legislature’s obligation in § 1(3) to provide adequate remedies for degradation. The constitutional right to a clean environment and to be free from unreasonable degradation was implicated because the pumping would have added a known carcinogen to the environment in concentrations greater than those already present in the receiving water. To the extent the statute excluded activities from nondegradation requirements without regard to the nature or volume of the discharged substances, it violated the environmental rights guaranteed by Article II, § 3 and Article IX, § 1 of the state Constitution.¹⁴⁶

No other state has endorsed a constitutional right to nondegradation to the extent that Montana has, and many states lack any constitutional protections for environmental quality. Even in states with such provisions, the protections afforded to beneficiaries of protected resources, and the obligations imposed on public officials to prevent their impairment, are unlikely to be absolute. Instead, they may be constrained by economic and social needs and values.¹⁴⁷

B. Common Law Theories

Another possible source of state law recognition of individual or group rights to protection against environmental degradation is state common law. The public trust doctrine might provide a basis for arguing that a state must prevent degradation of good air or water quality to comply with its sovereign obligation to preserve natural resources it holds in trust for its citizens’ benefit. The doctrine traditionally was limited to precluding a state’s divestiture of ownership of resources needed to assure public access to navigable waters for purposes such as navigation.¹⁴⁸ Some states now conceive of the trust more broadly.¹⁴⁹ A California court concluded that, although the doctrine evolved principally to insure public access to tidelands and navigable waters, it is not limited to those resources or that activity.¹⁵⁰ In some states, the trust protects wildlife, although such expansions may be statutory.¹⁵¹ California courts, among others, also have made it

¹⁴⁴ *Id.* at 225. *See also* Cape-France Enter. v. Estate of Peed, 305 Mont. 513, 519, 29 P.3d 1011 (2001).

¹⁴⁵ *Montana Env'tl. Info. Ctr.*, 296 Mont. at 230.

¹⁴⁶ *Id.* at 231.

¹⁴⁷ *See, e.g.*, Payne v. Kassab, 312 A.2d 86 (Pa. 1973).

¹⁴⁸ *See, e.g.*, Illinois Cent. RR. Co. v. Illinois, 146 U.S. 387 (1892).

¹⁴⁹ *See, e.g.*, Nat'l Audubon Soc'y v. Superior Court, 33 Cal.3d 419, 425, 658 P.2d 709 (1983)

¹⁵⁰ *Ctr. for Biological Diversity, Inc. v. FPL Group*, 166 Cal. App. 4th 1349, 1360 (Cal. App. 2008).

¹⁵¹ *Id.* at 1361, 1364.

clear that the doctrine obliges as well as empowers,¹⁵² calling the doctrine “more than an affirmation of state power to use public property for public purposes. It is an affirmation of the duty of the state to protect the people’s common heritage” in water resources.¹⁵³ In addition, judicial decisions in some states describe the public trust doctrine in terms that seem to require preservation of the resources it protects.¹⁵⁴ The Wisconsin Supreme Court, for example, concluded that the state has a duty “to prevent further pollution in its navigable waters.”¹⁵⁵ Allowing resource degradation appears inconsistent with a mandate to preserve natural resources in their current condition.

These kinds of broad characterizations of the scope and import of the public trust doctrine have been rejected by some courts.¹⁵⁶ But even if a state conceives of the scope of the trust relatively broadly, no courts appear to have converted the general obligation to preserve natural resources covered by the trust into a duty to prevent degradation of clean air or water quality in specific contexts, or to have recognized an enforceable individual right of trust beneficiaries to preclude the state from engaging in or authorizing degradation caused by pollution. Even some courts that have described the public trust doctrine broadly have acknowledged its limits, concluding that it requires a “delicate balancing” of conflicting environmental and other social and economic demands.¹⁵⁷

Because the public trust doctrine is not static, it has the potential to become the source of a government duty to prevent degradation of trust resources due to pollution or other environmental injury. One scholar has acknowledged that even in western states in which the public trust doctrine has been interpreted most expansively, the rights it protects “still remain focused on public uses of waters – not on the ecological and ecosystem services values of aquatic and other ecosystems.”¹⁵⁸ Nevertheless, she and others have argued that the doctrine should (and perhaps has even begun to) provide “both a rhetorically resonant articulation of the larger public interests in intact and functional ecosystems and a means of imposing broad duties on governments to act for

¹⁵² *Id.* at 1366 (quoting Charles Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C. DAVIS L. REV. 269, 284 (1980)) (“The heart of the public trust doctrine . . . is that it imposes limits and obligations on government.”).

¹⁵³ *Nat’l Audubon Soc’y v. Superior Court of Alpine County*, 33 Cal.3d 419, 441, 658 P.2d 709 (1983). *See also* *Just v. Marinette County*, 56 Wis.2d 7, 18, 201 N.W.2d 761 (1972) (stating that “[t]he active public trust duty of the state of Wisconsin in respect to navigable waters requires the state . . . to protect and preserve those waters for fishing, recreation, and scenic beauty”).

¹⁵⁴ *See, e.g., City of Berkeley v. Superior Court*, 26 Cal. 3d 515, 521, 606 P.2d 362 (1980) (concluding that the uses of the public trust include “the right to preserve the tidelands in their natural state as ecological units for scientific study”).

¹⁵⁵ *Just*, 56 Wis.2d at 16.

¹⁵⁶ *See, e.g., Idaho Forest Indus., Inc. v. Hayden Lake Watershed Improvement Dist.*, 112 Idaho 512, 516, 733 P.2d 733 (1987) (“There is no ‘public trust doctrine’ relating to land which is wholly independent or unconnected with such navigable waters”).

¹⁵⁷ *Ctr. for Biological Diversity, Inc. v. FPL Group*, 166 Cal. App. 4th 1349, 1370 (Cal. App. 2008).

¹⁵⁸ Robin Kundis Craig, *A Comparative Guide to Western States’ Public Trust Doctrines: Public Values, Private Rights, and the Evolution Toward an Ecological Public Trust*, 37 *ECOLOGY L.Q.* 53, 81 (2010).

the long-term preservation of ecosystems and other environmental values.”¹⁵⁹ One expert has argued that courts in jurisdictions that have not yet relied on the doctrine to protect the environment can and should develop it to protect resources based on standards and policy statements in federal and state environmental statutes and regulations.¹⁶⁰

Another potentially viable common law basis for protection against degradation is state water law. Under the doctrine of riparian rights, landowners whose property is adjacent to a watercourse are entitled to continued flow of the water in its natural state and a right to reasonable use.¹⁶¹ Some states have interpreted this doctrine to provide riparian owners a right to water in its unimpaired state.¹⁶² Further, as indicated above, although nuisance law is often purportedly based on utilitarian principles, some judicial decisions reflect rights-based protections against environmental degradation for private property owners and perhaps for the public at large.

V. CONCLUSION

Federal regulatory programs in the U.S. restrict deterioration of existing environmental quality and limit backsliding by permit holders. These programs are not based on any individual right to a given level of environmental quality. Instead, they are supported by efforts to provide a margin of safety against miscalculations in identifying safe pollution levels, protect high-value natural resources, protect the economies of high-polluting areas, limit interstate pollution, preserve opportunities for economic growth, and force polluters to achieve feasible levels of control. State constitutional and common law provide a firmer footing for rights-based nondegradation principles, but these laws are not universally accepted and tend to be limited in scope. Nondegradation in the U.S. is therefore more a matter of legislative and administrative policy than of enforceable individual rights. That posture is not likely to change any time soon, notwithstanding limited state recognition of a constitutional duty to prevent degradation and the potential for an expanded public trust doctrine to accommodate efforts to forestall degradation of environmental quality.

¹⁵⁹ *Id.* at 83. See also Alexandra B. Klass, *Modern Public Trust Principles: Recognizing Rights and Integrating Standards*, 82 NOTRE DAME L. REV. 699, 742 (2006) (discerning a trend “to integrate the common law public trust doctrine, state constitutional environmental protection provisions, and state statutes to protect natural resources and the environment as a matter of state law”).

¹⁶⁰ Klass, *supra* note 159, at 745.

¹⁶¹ ROGER A. CUNNINGHAM, WILLIAM B. STOEBOCK & DALE A. WHITMAN, *THE LAW OF PROPERTY* 424-25 (2d ed. 1993). See generally Robin Kundis Craig, *Defining Riparian Rights as “Property” through Takings Litigation: Is There a Property Right to Environmental Quality?*, __ ENVTL. L. __ (forthcoming), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1917532.

¹⁶² See, e.g., *L & S Water Power, Inc. v. Piedmont Triad Regional Water Auth.*, 712 S.E.2d 146 (N.C. App. 2011).