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"A Breathtaking Assertion of Power"? Not Quite. *Pronsolino v. Nastri* and the Still Limited Role of Federal Regulation of Nonpoint Source Pollution

by

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"A Breathtaking Assertion of Power":? Not Quite.

Pronsolino v. Nastri and the Still Limited Role of Federal Regulation of Nonpoint Source Pollution

Jocelyn B. Garovoy*

In Pronsolino v. Nastri, the Ninth Circuit Court of Appeals upheld a 'landmark' district court decision interpreting Section 303 of the Clean Water Act to apply to nonpoint source pollution. The Pronsolino decision affirms EPA's authority to enforce Total Maximum Daily Loads(TMDLs) in waters polluted exclusively by nonpoint sources. While this decision affirms EPA's ability to regulate nonpoint source pollution, the Clean Water Act itself still lacks effective enforcement provisions. There is little in the Act to compel either the agency or the states to implement TMDLs, and the current Bush Administration has put on hold EPA rules designed to strengthen TMDL implementation. Until EPA is authorized to enforce TMDLs, environmental advocates must employ other legal, political, and

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^{1.} Dave Kranz, Farm Bureau Seeks Rehearing in Landmark Clean-Water Case, AG ALERT, July 24, 2002, available at http://www.cfbf.com/agalert/2002/072402_b_aa.html (citing petition for rehearing filed by the American Farm Bureau Federation, California Farm Bureau Federation, and Mendocino County Farm Bureau on behalf of Mendocino county landowners Guido and Betty Pronsolino, Larry Mailliard, and Bill Barr in the 9th Circuit Court of Appeals after the court decided the Pronsolino v. Nastri case).

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economic .	strategies to address nonpoint source pollution—the major, and
still largely	unregulated, source of pollution tainting the nation's waters.
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INTRODUCTION

In 1960, Betty and Guido Pronsolino purchased 800 acres of heavily logged forestland in California's Garcia River watershed.² In 1998, after the forest had regrown, the Pronsolinos applied for a harvesting permit from the California Department of Forestry.³ To their dismay, the Department of Forestry and the Regional Water Quality Control Board

3. Id.

^{2.} Pronsolino v. Nastri, 291 F.3d 1123, 1129 (9th Cir. 2002).

issued a limited logging permit that allowed them to cut fewer trees, in more restricted locations than they had anticipated.⁴ Over the course of the nearly thirty years that had elapsed between the Pronsolinos' purchase of the land and their application for a harvesting permit, the Clean Water Act (CWA) had become federal law.⁵ The CWA includes provisions for regulating both point source pollution (waste emanating from an identifiable source such as a discharge pipe) and nonpoint source pollution (runoff from logging, farming, and municipal development).⁶ In response to the permit restrictions, the Pronsolinos brought a lawsuit against the U.S. Environmental Protection Agency (EPA) in 1999, challenging its authority under the CWA to regulate their logging. The litigation that followed resulted in an important Ninth Circuit decision in 2002, affirming EPA's authority to regulate nonpoint source pollution.

The holding in *Pronsolino*, while significant for its affirmation of EPA's existing authority, has limited impact, and still leaves much of the implementation and enforcement authority to the states. Section I of this Note presents a short legislative history of the Clean Water Act and identifies sections of the Act relevant to nonpoint source pollution. Section II provides an overview of the Pronsolino case and the Ninth Circuit's interpretation of the issues presented. Section III explains the limits of the holding in light of other recent circuit court decisions on nonpoint source pollution, and proposes that the absence of enforcement mechanisms, combined with political forces opposed to the regulation of nonpoint source pollution, renders EPA's authority to regulate nonpoint source pollution largely toothless. Section IV focuses on alternatives to the current regulatory scheme, including potential litigation strategies, options for policy reform, pollution permit trading schemes, and watershed-based management approaches. The Note concludes that in light of the political realities of regulating nonpoint source pollution, local-level watershed-based solutions hold the most promise for stemming the tide of nonpoint source pollution.

I. LEGAL BACKGROUND: THE CLEAN WATER ACT AND NONPOINT SOURCE POLLUTION

Congress amended the Federal Water Pollution Control Act (now known as the Clean Water Act) in 1972 "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." ⁷ Congress recognized that the inadequacies of two earlier acts regulating the nation's waters called for revitalization of federal water pollution law.

^{4.} *Id.* at 1129-30.

^{5.} Clean Water Act, 33 U.S.C. §§ 1251-1387 (2000).

^{6.} Id. §§ 1251(a), (b), 1313(d).

^{7.} Id. § 1251.

First, The Rivers and Harbors Act of 1899, which prohibited discharges into the navigable waters of the United States, provided a *qui tam* remedy under which citizens could prosecute violations and win half of the fines paid.⁸ Several hundred lawsuits were brought under the 1899 Act, prompting dischargers to demand some form of permit system to shield them from lawsuits.⁹ Second, the Federal Water Pollution Control Act of 1965,¹⁰ with its *voluntary* provisions for state implementation, had been deemed "inadequate in every vital aspect." ¹¹Even with the Act in place, pollution of the nation's waters continued to increase.¹² Congress enacted the Clean Water Act to respond to the inadequacies of the 1965 legislation and to the dischargers' call for a permit system.¹³

A. Regulation of Nonpoint Source Pollution: What Regulation?

More than thirty years after Congress passed the Clean Water Act, the nation is still far from achieving the Act's stated goal of restoring and maintaining the chemical, physical, and biological integrity of its waters. The primary obstacle is the Act's failure to adequately regulate nonpoint source pollution.

The term "nonpoint source pollution" refers to runoff from natural sources, as well as runoff from logging, agriculture, and storm-water passing over parking lots and subdivisions.¹⁴ Although the term itself is ill-defined, the problems caused by nonpoint source pollution are both well-documented and persistent.¹⁵ In order of volume, nonpoint source pollution emanates from agriculture, urban runoff, construction sites, mining areas, forestry operations, highways, and waste disposal sites.¹⁶ It results in excess nutrient and sediment loading in watersheds that ultimately reaches rivers, lakes, and coastal waters,¹⁷ and can introduce pathogenic bacteria and pesticides into waterways.¹⁸ According to an EPA report, nonpoint sources account for 65 -75% of pollution in the

11. PERCIVAL, supra note 8. at 882.

¹² Id.

13. Congress overrode a veto by President Nixon who opposed the substantial increase in federal funding for sewage treatment. *Id.* at 883.

14. OLIVER A. HOUCK, THE CLEAN WATER ACT TMDL PROGRAM: LAW, POLICY, AND IMPLEMENTATION 3-5 (1999).

16. Id.

17. Id.

18. These effects most often stem from agricultural operations. Cesare Dosi & Theodore Tomasi, *Preface* to NONPOINT SOURCE POLLUTION REGULATION: ISSUES AND ANALYSIS ix (Cesare Dosi & Theodore Tomasi eds., 1994).

^{8.} ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 882 (2nd ed. 1996).

^{9.} Id. at 882-83.

^{10.} Federal Water Pollution Control Act of 1965, Pub. L. No. 89-234 (1965).

^{15.} Id.

nation's most polluted waters.¹⁹ Nonpoint source pollution is the most significant form of pollution affecting streams and rivers in 33 states,²⁰ and it represents the dominant contributor to polluted lakes in 42 states.²¹ It makes up 43% of pollution in the nation's estuaries.²² The effects of nonpoint source pollution range from drastic reductions in the oxygen content of bays and estuaries (such that nothing but anaerobic bacteria can survive), to the reduced survival of endangered species, to an increased need for expensive dredging operations.²³

While the Clean Water Act focuses primarily on technology-based solutions to industrial discharges and sewage effluent known as point source pollution,²⁴ it provides no such direct mechanism to control the volume of nonpoint source pollution.²⁵ Rather, the Act addresses nonpoint source pollution indirectly, through a series of steps: states establish their own water quality standards, list their polluted water bodies, and then decide whether to enforce the water quality standards they established. Under Section 303 of the Act, states must set water quality standards for all waters within their boundaries.²⁶ Total Maximum Daily Loads (TMDLs), are calculations of the maximum level of pollution that a water body can withstand while still satisfying state water quality standards.²⁷ A TMDL is legally defined as the sum of wasteload allocations to point sources, load allocations to nonpoint and natural

21. Id.

22. Id.

23. *Id.*; See HOUCK, supra note 14 at 4. See also U.S. ENVIRONMENTAL PROTECTION AGENCY, POLLUTED RUNOFF (NONPOINT SOURCE POLLUTION, APPENDIX: CASE STUDIES, at http://www.epa.gov/owow/nps/urbanize/appendix.html (last updated July 25, 2002).)

24. The Act defines point source pollution as

any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

33 U.S.C. § 1362(14) (2000).

25. Pronsolino, 291 F.3d at 1126.

26. Water quality standards specify the designated uses of a given water body and take into account the water's "use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes" CWA § 303(c)(2), 33 U.S.C. § 1313(c)(2).

27. Esther Bartfeld, Point-Nonpoint Source Trading: Looking Beyond the Potential Cost Savings, 23 ENVTL. L. 43, 72 (1993).

^{19.} David Zaring, Note, Agriculture, Nonpoint Source Pollution, and Regulatory Control: The Clean Water Act's Bleak Present and Future, 20 HARV. ENVTL. L. REV. 515, 517 (citing EPA, ACTIVITIES AND PROGRAMS IMPLEMENTED UNDER SECTION 319 OF THE CLEAN WATER ACT AS AMENDED BY THE WATER QUALITY ACT OF 1987, FISCAL YEAR 1987, A REPORT TO CONGRESS 2 (1987)).

^{20.} Id. (citing EPA, NATIONAL WATER QUALITY INVENTORY: 1986 REPORT TO CONGRESS 24 (1986)).

background sources, and a margin of safety considering seasonal variation.²⁸ TMDLs can be expressed in terms of either mass per time. toxicity, or other appropriate measure.²⁹ If a state fails to set these standards, EPA then promulgates TMDLs for that state.³⁰ To incentivize states to establish TMDLs without EPA intervention, Section 319 of the CWA makes federal funding available to states for the development and implementation of plans to achieve water quality standards where federally mandated point source technological controls have not been sufficient to achieve clean waters.³¹ Under Section 303(d)(1) of the CWA, states must identify waterways that will not be able to meet water quality standards. Under Section 303(e), states must continue to engage in a planning process to achieve compliance with federal water quality standards for those listed waterways.³² Through this complex series of requirements and regulations, states are expected to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."33 By most accounts, the system has not been effective: nonpoint source pollution continues to create significant problems for which polluters remain legally unaccountable.

1. Regulation of Point Sources: A Model of Success

In sharp contrast to the equivocal regulation of nonpoint source pollution, many tout the regulation of point sources as a model of success for environmental law in the United States.³⁴ The Clean Water Act's strict technology-based regulation of "end-of-the-pipe" or point source discharges has produced remarkable results in the thirty years since the Act's passage. Industrial wastewater discharge rates into the nation's waters have dropped significantly,³⁵ municipal wastewater discharges have dropped by nearly 50%,³⁶ and the overall number of dischargers has

29. Id.

30. CWA § 303(d)(2), 33 U.S.C. § 1313(d)(2).

31. 33 U.S.C. § 1329(h) (providing for grants to states to combat nonpoint source pollution).

32. "Water quality limited segments" or WQLS are those waters that must be placed on 303(d)(1) lists, "where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet water quality standards, even after the application of the technology-based effluent limitations." 40 C.F.R. § 130.2(j) (2000).

33. CWA § 101(a), 33 U.S.C. § 1251(a).

34. See HOUCK, supra note 14.

35. Oliver A. Houck, *TMDLs IV: The Final Frontier*, 29 ENVTL L. REP. 10469 (citing ROBERT ADLER, ET AL. THE CLEAN WATER ACT 20 YEARS LATER 16 (1993)).

36. *Id.* (citing COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY 1994-95, 14 (1997)).

^{28. 40} C.F.R. § 130.2 (2003).

decreased.³⁷ The Act's point source permit system has been called "America's most successful pollution control program."³⁸

While regulatory paralysis hinders federal control of nonpoint source pollution, federal regulation of point source pollution is explicit. Section 301 of the Act requires nationally uniform, technology-based limits on point source discharges. These limits are administered through a national permit program described in Section 402 of the Act.³⁹ Congress mandated that EPA create uniform industry-specific standards and require dischargers to use the best available technology to reduce pollution levels by 1983.⁴⁰ Section 402 created the National Pollutant Discharge Elimination System (NPDES) to administer the issuance of permits.⁴¹ The states assume primary responsibility for administering the permit system, but EPA retains oversight and enforcement authority.⁴² Furthermore, Section 505(a) of the Act authorizes citizen enforcement suits for violations of the Act.⁴³

2. Point v. Nonpoint Source Pollution: Explaining Disparities in Regulatory Effectiveness

The diffuse nature and diverse sources of nonpoint source pollution, combined - with political opposition from agriculture, timber, and development interests, have made effective nonpoint source regulation nearly impossible.⁴⁴ First, the regulation of nonpoint source pollution poses technical challenges. Sediment from one logging area or pesticide residue from a particular farm can be indistinguishable from other local sources of nonpoint source pollution, complicating efforts to set specific pollution limits or mandate stream protection measures in a given watershed or region.⁴⁵ The political obstacles pose even greater problems, as the actual sources behind nonpoint source pollution, agriculture, timber, and development interests strongly oppose federal regulation of nonpoint source pollution.⁴⁶ These political forces, coupled

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^{37.} Id. (citing ADLER ET AL., supra note 13, at 137).

^{38.} Oliver Houck, Recent Developments Under the Clean Water Act NPDES Program (Feb. 5, 1991) cited in PERCIVAL, supra note 8, at 873.

^{39. 33} U.S.C. §§ 1311, 1342

^{40.} Houck, supra note 38, at 888.

⁴¹ Id. at 890; 33 U.S.C. § 1342.

^{42.} Id. EPA's enforcement options include compliance orders and civil and criminal penalties for violations of the Act. Id.

^{43. 33} U.S.C. § 1365 (2000).

^{44.} See Steven Hipfel, Enforcement of Nonpoint Source Water Pollution Control and Abatement Measures Applicable to Federal Facilities, Activities, and Land Management Practices Under Federal and State Law, 8 ENVTL. L. 75, 84-86 (2001).

^{45.} See, e.g., Zaring, supra note 19, at 539.

^{46.} See Hipfel, supra note 44.

with technological challenges related to determining the origin of nonpoint source pollution, have prevented effective regulation. While EPA has proposed several methods to states for making TMDL allocations among the various nonpoint source polluters, none of these methods make it politically palatable for a state "to place its head into the jaws of a public utility, a chemical plant, or [a] local farmer" to establish permit limits.⁴⁷

Even where Congress has overcome the political and technological obstacles to regulate nonpoint sources, regulation remains controversial. In particular, the statutory language of Section 303 has generated significant dispute. The confusion surrounds the very question presented in the Pronsolino case: whether Congress intended to regulate waters polluted exclusively by nonpoint sources via TMDLs, or whether TMDLs apply only to those waters that are polluted by point sources or a combination of point and nonpoint sources. Because Section 303 specifies "effluent limitations," a term used elsewhere in the Act to refer to point sources, nonpoint source polluters have insisted for years that Section 303 was not intended to apply to them.⁴⁸ Recall, however, that Section 303(d)(1) of the Act specifically requires states to (1) list their polluted waterways, (2) establish priority rankings among the waters listed, and (3) specify permissible TMDLs for pollutants entering the waters from both point and non-point sources.⁴⁹ According to the court's holding in Pronsolino, Section 303 does in fact apply to waterways polluted exclusively by nonpoint sources.⁵⁰

^{47.} Oliver Houck, The Regulation of Toxic Pollutants Under the Clean Water Act, 21 ENVTL. L. REP. 10528, 10546 (1991), cited in PERCIVAL, supra note 8, at 944.

^{48.} See Oliver A. Houck, The Clean Water Act TMDL Program V: Aftershock & Prelude, 32 ENVTL. L. REP. 10385, 10386 (2002); John Bloomquist, The Agricultural Perspective: TMDLs in the Context of a Clean and Healthful Environment, 22 PUB. LAND & RESOURCES L. REV. 19, 24-26 (2001).

^{49.} Specifically, Section 303(d)(1)(A) of the Act requires each state to "identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters." 33 U.S.C. § 1313(d)(1)(A) (2000). Section 303(d)(1)(C) provides that

[[]e]ach State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under Section 1314(a)(2) of this title as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards.

^{50.} Pronsolino, 291 F.3d at 1125-26.

II. THE CASE: PRONSOLINO V. NASTRI

In 1998, the California Department of Forestry and the Regional Water Quality Control Board issued the Pronsolinos a limited logging permit. The permit was limited in order to comply with California's newly established Garcia River TMDL.⁵¹ EPA had developed the Garcia River TMDL in response to a citizen suit filed to compel the enforcement of Clean Water Act sections intended to regulate nonpoint source pollution. The litigants, a fishing advocacy organization dedicated to sustainable fisheries, brought suit because of their concern that pollution from nonpoint sources was adversely affecting endangered salmon runs in Northern California.⁵² EPA identified the Garcia River's water quality as sub-standard, and under the authority granted by Section 303(d) of the Clean Water Act, called for a 60% reduction in sediment loading.⁵³ To reduce pollution and comply with the new Garcia River TMDL, the Pronsolinos' harvesting permit strictly limited their logging activities. Specifically, the permit required the Pronsolinos to mitigate 90% of controllable road-related sediment runoff, retain the five largest trees per one hundred feet of watercourses, and refrain from harvesting during the rainy season.⁵⁴ The Pronsolinos estimated that the large-tree restriction alone would cost them \$750,000 in lost revenue.55 The permit also required the Pronsolinos to inventory sediment sources from roads and skid trails, mitigate sediment volume by 2012, and avoid removing trees that might deliver sediments to from unstable areas nearby watercourses.56

^{51.} U.S. EPA Region IX, Garcia River Sediment Total Maximum Daily Load (March 16, 1998), available at http://www.epa.gov/Region9/water/tmdl/garcia/garcia.pdf. Total Maximum Daily Load is the maximum amount of a pollutant that can be discharged into a water segment by all sources (including nonpoint sources) without violating a water quality standard. PERCIVAL, supra note 8, at 943. The TMDL is established by the State or by the EPA for each known pollutant, and allocated among users of the waterway. *Id.* (citing Scott v. City of Hammond, 741 F.2d 992 (7th Cir. 1984)); Alaska Ctr. for the Env't v. Reilly, 762 F. Supp. 1422 (W.D. Wash. 1991); Alaska Ctr. for the Env't v. Browner, 20 F.3d 981 (9th Cir. 1994) (holding that EPA has a nondiscretionary duty to promulgate TMDLs in the face of state inaction). As one commentator has suggested, it is possible that TMDL simply stands for "too many damn lawyers." Brian Sugden, *The Timber Industry Perspective: TMDLs and Forestry, Trying to Make a Square Peg Round*, 22 PUB. LAND & RESOURCES L. REV. 47 (2001).

^{52.} Pronsolino, 291 F.3d at 1129. (citing Consent Decree, Pacific Coast Federation of Fishermen's Association v. Marcus, No. 95-4474 MHP (N.D. Cal. 1997)).

^{53.} North Coast Regional Water Quality Control Board, *Garcia River Watershed Water Quality Attainment Action Plan for Sediment* (June 28, 2001), *available at http://www.swrcb.ca.gov/rwqcb1/download/GarciaActionPlan.pdf.*

^{54.} *Pronsolino*, 291 F.3d at 1130. Mitigation of sediment runoff may be accomplished by planting trees near the river or cutting fewer trees close to the river's banks. *Id*.

^{55.} Id.

^{56.} Id.

Displeased with these restrictions on their logging activities, the Pronsolinos filed suit against EPA in April of 1999.⁵⁷ The Mendocino County Farm Bureau, the California Farm Bureau Federation, and the American Farm Bureau Federation joined as plaintiffs.⁵⁸ The plaintiffs challenged EPA's authority under Section 303 of the Clean Water Act to impose TMDLs on rivers polluted *exclusively* by nonpoint sources, and sought a determination that the Act did not authorize the Garcia River TMDL.⁵⁹

A. The Holding: EPA can Regulate Nonpoint Source Pollution using TMDLs, But Implementation Remains The States' Responsibility

Focusing on ambiguity in the statutory language, the Pronsolinos argued that Section 303 was not meant to apply to nonpoint source pollution.⁶⁰ They asserted that the statutory reference to "effluent limitations" in Section 303 characterizes point source regulation and not nonpoint source regulation.⁶¹ They further argued that because Sections 208 and 319 of the Act set forth explicit provisions addressing nonpoint sources. ⁶² The Ninth Circuit rejected this argument, concluding that "the structural inferences we are asked to draw from those specialized sections – that no *other* provisions of the Act set requirements for waters polluted by nonpoint sources – simply does not follow."⁶³ The court reasoned that Sections 208 and 319 of the Act do not contradict Section 303.⁶⁴ Rather, they encourage different, "complementary, state schemes for cleaning up nonpoint source pollution in the nation's waterways."⁶⁵ This analysis by

- 61. Id. at 2.
- 62. Id. at 1.
- 63. Pronsolino, 291 F.3d at 1138.

64. Id. Sections 208 and 319 of the Act provide for federal money for state implementation of management plans for areas with water quality problems and require states to identify and control nonpoint source pollution "to the extent feasible." See Zaring, supra note 19, at 522-24. The voluntary nature of this Section has prompted little action by the states since its enactment. Id. at 522-28. By 1987, it had become clear that "in many watersheds the goals of the Clean Water Act – fishable, swimmable water – will not be met unless we can significantly reduce farm and urban runoff and other nonpoint problems." Id. at 525 (quoting 132 CONG. REC. § 1015 (January 21, 1987) (statement of Sen. Durenberger)). Section 319, enacted in 1987, accordingly requires states to produce assessment reports identifying waters that do not meet water quality standards and to propose management programs including implementation schedules in order to receive federal funds to implement the programs. Id. at 526; Pronsolino, 291 F.3d at 1138.

^{57.} Pronsolino v. Marcus, 91 F. Supp. 2d 1337, 1340 (N.D. Cal. 2000).

^{58.} Id. at 1338.

^{59.} Id. Regulation of point sources under the Clean Water Act has become standard since the enactment of the Act in 1972. HOUCK, supra note 14.

^{60.} Reply Brief for Plaintiffs-Appellants, Pronsolino v. Nastri, 291 F.3d 1123 (9th Cir. 2002).

^{65.} Pronsolino, 291 F.3d at 1139.

the Ninth Circuit's in *Pronsolino* confirms that Section 303, in fact, applies to waterways polluted exclusively by nonpoint sources.

The Ninth Circuit looked to the United States Supreme Court's Chevron⁶⁶ and Skidmore⁶⁷ decisions to determine how much deference EPA's interpretation of Section 303 should receive.⁶⁸ Where Congress has delegated authority to an administrative agency to make rules carrying the force of law, the agency is due *Chevron* deference.⁶⁹ In *Pronsolino*, the Ninth Circuit noted that Congress delegated the authority to interpret the CWA and enact rules carrying the force of law to EPA.⁷⁰ Thus, the agency was due Chevron deference, and no further judicial inquiry into the reasonableness of the agency action was required.⁷¹ Perhaps in an effort to prevent reversal by the Supreme Court, the Ninth Circuit also applied the Skidmore test, which examines the persuasiveness of the agency action, noting that "[t]he Supreme Court in Mead recently clarified that agency interpretations that do not qualify for Chevron deference may nonetheless merit deference pursuant to Skidmore."72 Citing EPA's specialized experience and the value of uniformity between administrative and judicial interpretations of national law, the court explained that it found the agency's interpretation of Section 303 "informative." ⁷³ Owing to EPA's technical expertise, and the complex nature of the requirements of the Clean Water Act, the court ruled that it would also defer to EPA under a Skidmore analysis.74

The Pronsolinos argued that deferring to EPA's interpretation of Section 303 would "upset the balance of federal-state control established in the CWA by intruding into the state's traditional control over land use."⁷⁵ Rejecting this claim, the court explained that the EPA-established

70. Pronsolino, 291 F.3d at 1131.

- 72. Id. at 1131 (citing Mead, 533 U.S. at 221).
- 73. Id. at 1133.
- 74. Id. at 1134-35.
- 75. Id. at 1140.

^{66.} Chevron, U.S.A., Inc. v. Natural Res. Defense Council, Inc., 467 U.S. 837 (1984).

^{67.} Skidmore v. Swift & Co., 323 U.S. 134 (1944).

^{68.} Chevron established a two-step test for analyzing an agency's interpretation of a statute that it administers when issues of statutory interpretation arise. Chevron, 467 U.S. at 842. First, the reviewing court must determine "whether Congress has directly spoken to the precise question at issue." Id. If congressional intent is clear, the inquiry stops. Id. If the statute is silent or ambiguous about the issue, however, the reviewing court must decide whether the agency's interpretation is a reasonable construction of the statute. Id. at 843. If the interpretation is reasonable, the court will defer to it. Id. If it is not, the court will invalidate the agency interpretation. Id. Under Skidmore, the reviewing court defers to the agency's position according to its persuasiveness based on the agency's expertise, care, consistency, formality, and the logic of its position. Skidmore is considered a less deferential standard. See Pronsolino, 291 F.3d at 1131.

^{69.} United States v. Mead Corp., 533 U.S. 218, 226-27 (2001).

^{71.} Id. at 1133.

Garcia River TMDL identifies maximum pollutant loads, but neither allocates loads from specific parcels of land nor mandates specific measures for the State to use when implementing the TMDL.⁷⁶ Implementation and monitoring remain the state's responsibilities. The court observed that "California chose both *if* and *how* it would implement the Garcia River TMDL. States must implement TMDLs only to the extent that they seek to avoid losing federal grant money."⁷⁷ This language in the *Pronsolino* decision highlights a significant limitation on federal authority: Congress can threaten to withhold federal grant money from states, but it cannot require states to implement specific pollution mitigation measures to meet the requirements of the CWA.

B. Reaction to the Decision

The Pronsolino court's ruling that Section 303 applies to nonpoint source pollution supports EPA's interpretation of the section. In 1997, five years before Pronsolino, EPA attempted to clarify its interpretation of Section 303 to include nonpoint sources, stating that "consistent with long-standing EPA policy, regulations, and practice, states should include water bodies impaired by nonpoint sources alone on... Section 303(d)(1)(A) lists."⁷⁸ EPA has also recently proposed expanding the scope of TMDLs to include load allocation and implementation plans.⁷⁹ This expanded interpretation, which would allow EPA to regulate nonpoint sources more closely by establishing enforceable limits for nonpoint source polluters evoked a strong political response and has been put on hold indefinitely.⁸⁰ While regulations encouraging TMDL implementation plans have been delayed and demoted in the current Bush Administration,⁸¹ EPA's interpretation of Section 303, officially extending its reach to regulate nonpoint sources, has gained ground, in a subtler way, as a result of the Pronsolino decision.82

79. Load allocations are defined as a type of TMDL that is specific to nonpoint sources, as opposed to wasteload allocations that are designated for point sources in calculating TMDLs. *Pronsolino*, 291 F.3d at 1128.

80. See infra, note 129 and accompanying text.

81. Id.

82. Damon Franz, Clean Water: Farmers, Foresters Challenge Feds' Authority to Regulate Non-Point Sources, GREENWIRE, July 23, 2002; Cat Lazaroff, Court Supports EPA Authority to Regulate Pollution in Rivers, ENV'T NEWS SERVICE, April 7, 2000 (on file with author); Association of Metropolitan Sewerage Agencies News Release, AMSA Wins Pivotal Clean Water Act Case: States Can List Nonpoint Sources as Cause of Impaired Waters, June 3, 2002, at http://www.amsa-cleanwater.org/advocacy/releases/060302.cfm; U.S. EPA Region 9, Federal

^{76.} Id.

^{77.} Pronsolino, 291 F.3d at 1140.

^{78.} See EPA, National Clarifying Guidance for 1998 State and Territory Clean Water Act Section 303(d) Listing Decisions 6 (1997), available at http://www.epa.gov/OWOW/tmdl/lisgid.html.

The Farm Bureaus responded to the holding in Pronsolino by calling it "a breathtaking assertion of power"⁸³ in favor of EPA and federal regulation of nonpoint source pollution, but a closer look at the court's reasoning reveals that states still retain the authority to implement (or not) TMDLs. The Farm Bureaus estimate that as a result of the holding in Pronsolino, more than 15 million acres of California land will be affected by TMDL standards for nonpoint source polluted waterways.⁸⁴ Nationwide, the Bureaus estimate that 40,000 new TMDLs are necessary for point and nonpoint source pollution, affecting over 21,000 rivers, lakes, and estuaries.⁸⁵ The Bureaus maintain that Congress never intended for TMDL regulations to affect waterways impacted solely by nonpoint sources.⁸⁶ They continue to insist that the CWA should regulate only point sources and that states should be allowed to manage nonpoint sources through voluntary, incentive-based programs.⁸⁷ While Pronsolino is undoubtedly a significant victory for federal regulation of nonpoint source pollution, it does not, as the Farm Bureaus suggest, infringe on states' authority to implement federally prescribed TMDLs.⁸⁸ A problem that remains for the Nation's waters is that some states choose not to enforce these TMDLs.

III. LIMITS OF PRONSOLINO: WHY SECTION 303 IS STILL 'TOOTHLESS'

Even after *Pronsolino*, EPA still cannot enforce TMDLs for nonpoint source polluted waterways. This decision and others like it indicate that under the Clean Water Act, it remains the responsibility of each state to develop and enforce load allocations after EPA imposes a TMDL.⁸⁹ If the state fails to do so, it faces few sanctions beyond the loss of federal grant money, or the possibility of citizen suits. Russell Eggert, lead counsel for the Pronsolinos, commented that his clients "[w]ere not entirely unhappy with the outcome, since the Ninth Circuit made it pretty

83. Kranz, supra note 1.

Landmark Water Appeals Court Upholds Clean Decision. June 3. 2002. at http://yosemite.epa.gov/r9/r9press.nsf/news; National Association of Attorneys General, TMDL Requirements Apply to Waters Polluted by Nonpoint Sources: Guido A. Pronsolino et al. v. Nastri et al. No 00-16026 (9th Cir. May 31, 2002), NAT'L ENVTL. ENFORCEMENT J. (July 2002); EPA Can Regulate Nonpoint Sources of Pollution, 9th Cir. Says, HAZARDOUS WASTE LITIG. REP., June 21, 2002, at 4; Locke Liddell & Sapp LLP, EPA Can Require TMDLs for Waters Affected Only by Nonpoint Sources, TEX. ENVTL. COMPLIANCE UPDATE, July 2002; Hong N. Huynh, Ninth Circuit Provides Clear Answer on Controlling Nonpoint Source Pollution, June 2002, at http://www.millernash.com/showarticles.asp?Show=271.

^{84.} Id.

^{85.} Id.

^{86.} Id.

^{87.} *Id.*

^{88.} See infra, Section V; note 91 and accompanying text.

^{89.} See infra note 91.

clear that EPA cannot enforce or require implementation of a TMDL."⁹⁰ Mr. Eggert noted that "as a result, a TMDL is now largely just a piece of paper unless a state decides, of its own volition, to implement it."⁹¹

A. Circuit Court Decisions Reinforce the Limited Scope of Federal Regulatory Authority

Decisions from the Ninth and Eleventh Circuits just months after *Pronsolino* confirm the limited scope of federal regulatory authority to address nonpoint source pollution.

The Ninth Circuit reinforced its position in Pronsolino in a July 2002 decision, Baykeeper v. Whitman.⁹² There, environmental organizations sued EPA under the Clean Water Act, seeking a declaration that California had failed to implement an adequate water pollution control program, and failed to establish TMDLs, triggering EPA's nondiscretionary duty to establish TMDLs.93 The court rejected Baykeeper's use of this constructive submission theory,⁹⁴ finding that the doctrine could not apply because California had submitted some TMDLs, albeit on a delayed schedule inconsistent with water quality standards.⁹⁵ The court noted that California had designed a schedule for establishing TMDLs for waters on its 303(d) lists within the next twelve years, and that the state had dedicated significant funding to its TMDL program, allotting \$7 million annually.⁵⁶ The holding echoes the court's language in Pronsolino where it stated that because "California chose both if and how it would implement the...TMDL [program],...there is no pertinent statutory provision otherwise requiring implementation of Section 303 plans or providing for their enforcement."97

Federal regulatory authority over nonpoint source pollution has been limited in the Eleventh Circuit as well. In *Sierra Club v. Meiburg*,⁹⁸ plaintiffs sued EPA to establish and enforce TMDLs for Georgia state waters. Georgia had established only two TMDLs for its 340 listed

93. Id. at 879, 881.

95. San Francisco Baykeeper, 297 F.3d at 883.

^{90.} E-mail from Russell Eggert, lead counsel for the Pronsolinos, (October 10, 2002) (on file with the author).

^{91.} Id.

^{92.} San Francisco Baykeeper v. Whitman, 297 F.3d 877 (9th Cir. 2002).

^{94.} Under the "constructive submission" doctrine, a complete failure by a state to submit TMDLs will be construed as a submission of no TMDLs, triggering the EPA to act to establish TMDLs. See Scott v. City of Hammond, 741 F.2d. 992, 996 (7th Cir. 1984); San Francisco Baykeeper, 297 F. 3d at 881; see generally HOUCK, supra note 14, at 51-53.

^{96.} Id. at 880.

^{97.} Pronsolino, 291 F. 3d at 1140.

^{98.} Sierra Club v. Meiburg, 296 F.3d 1021 (11th Cir. 2002).

waterways between 1979 and 1994.⁹⁹ The parties had agreed to the terms of a 1997 consent decree that set out a schedule for TMDL establishment. The state subsequently established TMDLs, but failed to implement them.¹⁰⁰ Sierra Club moved in the district court to re-open the consent decree and compel EPA to implement the TMDLs.¹⁰¹ The district court held that EPA was obligated to either ensure the adequacy of Georgia's implementation plans, or alternatively, to create its own implementation scheme.¹⁰² EPA appealed the decision to the Eleventh Circuit which held that the district court had abused its discretion in re-opening the consent decree.¹⁰³ The terms of the decree, according to the Circuit Court, relegated EPA to a supervisory role in TMDL implementation, while the state alone retained authority for implementing TMDLs.¹⁰⁴

These cases, like *Pronsolino*, suggest that while EPA does have authority under the CWA to establish TMDLs for nonpoint source polluted waters, states have the discretion to choose whether and how quickly to implement the TMDLs. The question remains as to what avenues should be pursued to more effectively address the nonpoint source pollution tainting the nation's waterways.

IV. WHERE DO WE GO FROM HERE? LEGAL, POLITICAL, AND ECONOMIC _ POSSIBILITIES

While the *Pronsolino* decision determined that EPA has the authority to impose TMDLs on water bodies polluted solely by nonpoint sources, this authority does not translate into the effective implementation of regulatory controls on nonpoint source polluters. Unless or until EPA is given enforcement authority analogous to that characterizing the point source regulatory scheme, alternative approaches may hold more promise for reducing nonpoint source pollution. Alternative approaches include: additional litigation to hold states accountable, policy reform aimed at counteracting powerful nonpoint source political lobbies (agriculture, timber, municipal development), economic incentives in the form of tradable permits, and locally-based management schemes that incorporate several of these approaches.

^{99.} Id. at 1027; see Jason Dare, Courts Limit EPA's Obligation to Establish and Implement TMDLs, at Mississippi-Alabama Sea Grant Legal Program, http://www.olemiss.edu/orgs/SGLC/22.2tmdl.htm (last visited June 4, 2003).

^{100.} Meiburg, 296 F.3d at 1023.

^{101.} Id. at 1028.

^{102.} Id. at 1023.

^{103.} Id. at 1032-33.

^{104.} In the court's own language, "Georgia is still responsible for incorporating TMDLs, regardless of whoever establishes them, into its section 303(e) plan; Georgia is still responsible for incorporating TMDLs into its NPDES permits; and Georgia is still responsible for implementing non-point source pollution controls." *Id.* at 1034.

A. More Litigation?

Although the circuit court cases described above evidence limited federal authority to implement TMDLs, litigation may still be a useful tool for cleaning up the nation's waters. Judicial decisions could lead to increased regulation of nonpoint source pollution if the courts find that EPA or the states are not following their statutory mandates.

1. Relief in Federal Court

Environmental groups, citizens, states, or municipalities could sue EPA for approving state-developed TMDLs that inadequately address water quality issues. The approval of such TMDLs might be construed as "arbitrary and capricious" under Section 706(2)(a) of the Administrative Procedure Act (APA).¹⁰⁵ However, considering the highly technical nature of establishing TMDLs, the complexity of EPA's statutory mandate, and the APA's deferential standard of review, absent a showing of some egregious error in calculation, courts would likely defer to EPA's decisionmaking authority pursuant to *Chevron*.¹⁰⁶ This is exactly what the Ninth Circuit did in *Pronsolino*. If plaintiffs could show, perhaps through water quality monitoring, that an implemented TMDL was not sufficient to reduce sediment loading in the first place, courts might be more likely to take a harder look at the agency's approval of the TMDL and might find that EPA abused its discretion or acted arbitrarily and capriciously in approving an inadequate TMDL.¹⁰⁷

2. Relief in State Court

Environmental groups and citizens might also seek recourse through state courts by attempting to force compliance with existing state laws or state agency rules requiring protection of water quality. Once a state establishes a TMDL, or once EPA establishes a TMDL for the state (under the rule-making authority granted by Section 303 of the Act), it is up to the state to implement it. Depending on state constitutions and legislative provisions, citizen groups could apply pressure to particular entities to enforce TMDLs, and could threaten suit if the state does not enforce the TMDL. A lawsuit may result if the state fails to yield to that pressure. Claims could be brought against the state itself, state forestry

^{105. 5} U.S.C. § 706 (2000).

^{106.} Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 842-44 (1984).

^{107.} See Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971) (holding that reviewing courts should engage in "searching and careful inquiry" when examining whether a federal agency's decision is arbitrary and capricious under the Administrative Procedure Act).

departments, agricultural agencies, municipalities or zoning boards overseeing development. The success of such a litigation strategy would be heavily dependant on the existence of applicable state laws and/or clear agency guidance documents designed to protect water quality. In California, for example, in addition to the federal Clean Water Act, environmental protection statutes such as the Porter-Cologne Water Quality Control Act¹⁰⁸ provide potential mechanisms with which to challenge state inaction.

This strategy would be more successful in some states than in others, as some states have demonstrated a commitment to implementing TMDLs, while others have not.¹⁰⁹ For example, TMDL litigation emerged early in Oregon, and the state has proven to be a supporter of EPA's TMDL requirements.¹¹⁰ Virginia, however, has not adopted anything beyond a pilot TMDL program.¹¹¹ Unfortunately, the political status quo suggests that litigation in state court may be the least useful in states where it is the most needed. Local land-use politics, particular regional industries, and political inertia can account for some of the differences between states' approaches to nonpoint source pollution. Political opposition is often the most powerful impediment to meaningful regulation of nonpoint source polluters—a group that has been unregulated for decades and would prefer to remain that way.

B. Policy Reform: Addressing Political Inertia

Although the complexity of managing nonpoint source pollution may partly explain the lack of nonpoint source regulation since the passage of the Clean Water Act, the primary obstacle to reform is political will.¹¹² Regulators have bemoaned the technological difficulty of identifying the origins of nonpoint source pollution and have used this as an excuse for not regulating runoff.¹¹³ Although technological enforcement issues do present challenges, they are often overstated. Improved regulation would not require exact identification of the sources of sediment and pesticide runoff;¹¹⁴ practical solutions do exist. According to Professor Oliver Houck, abatement measures are "usually obvious. And low-tech. And cheap."¹¹⁵ For example, streamside setbacks can

- 113. Houck, supra note 34.
- 114. Id.
- 115. Id.

^{108.} CAL. WATER CODE §§ 13000-14958 (West 2002).

^{109.} See HOUCK, supra note 14, at 128 n.294 (citing States Lack Resources Needed to Implement TMDL Strategy, EPA Told, DAILY ENV'T REP. (BNA) May 12, 1997 at A-8).

^{110.} Id.

^{111.} Id. at 128-29 n. 295.

^{112.} See id. at 3-6.

reduce fertilizer runoff from cornfields.¹¹⁶ Options for other crops and animal husbandry include "winter cover, retention ponds, shelterbelts, and caps on fertilizers in amounts that the soil will retain and the crops will use."¹¹⁷ The implementation of such simple strategies, though, still requires collective political will.

1. The Political Dynamic

The diverse parties on both sides of the Pronsolino litigation demonstrated that views on the regulation of nonpoint source pollution depend largely on one's own interests. On one hand, the agriculture and timber industries perceive the regulation of nonpoint source pollution as a major threat to their livelihoods.¹¹⁸ On the other hand, failure to regulate nonpoint source pollution burdens the public, the states, environmental and fishing interests, and the already regulated point sources (such as municipal sewage treatment authorities that are forced to bear the whole burden of pollution reduction).¹¹⁹ The size and scope of the coalitions on both sides highlight the controversy and magnitude of this issue. However, even with so many voices on both sides, the playing field is not level. As Professor David Zaring explains, the issue of nonpoint source regulation "matches a large and diverse 'public' interest group of other water users who would benefit from decreased agricultural pollution against a concentrated 'private' group of farmers threatened with potentially expensive pollution regulation."¹²⁰ Thus, farmers and other nonpoint source polluters, like the Pronsolinos, "have a stronger incentive per person to fight for their concerns than the other water users, who may only receive a small prospective benefit from any lobbying efforts they undertake."121

The *Pronsolino* decision does not change the political dynamic described above. It does, however, indicate that after three decades of

121. Id.

^{116.} Id.

^{117.} Id.

^{118.} Plaintiffs who joined the Pronsolinos in their lawsuit against the EPA were the Mendocino County Farm Bureau, the California Farm Bureau Federation, and the American Farm Bureau Federation. American Forest & Paper Association and the California Forestry Association joined the Pronsolinos at the appeals stage. Amici Curiae in support of the Pronsolinos included property rights groups the Pacific Legal Foundation, Forest Landowners of California, and the Oregon Lands Coalition.

^{119.} Defendant agency EPA was joined at the appeals stage by the Pacific Coast Federation of Fishermen's Associations, San Francisco Baykeeper, the Association of Metropolitan Sewerage Agencies (an already heavily regulated point source association). The States of California, Oregon, Washington, Delaware, Maine, Maryland, and New Jersey submitted an amici curiae brief in support of EPA expressing the "critical" role for federal assistance in helping States regulate nonpoint source pollution.

^{120.} Zaring, supra note 19, at 542.

polluters escaping federal regulation, the tide is shifting. Nonpoint source pollution may now face not only TMDL- based regulation, but also a growing public awareness of its impacts that could, through political channels, effect additional regulation within a few years' time.¹²²

The political conflict between major nonpoint source polluters and the public reached a pinnacle in 2000, after EPA proposed draft comprehensive TMDL regulations requiring implementation plans and schedules.¹²³ Opposition ran deep; EPA received more than 34,000 public comments.¹²⁴ In congressional committee hearings, small-scale farmers and loggers expressed vehement concern that use of their land would require permits.¹²⁵ Committee members accused EPA of holding secret meetings with environmentalists.¹²⁶ EPA soon began to concede aspects of its proposed rule,¹²⁷ fighting with Congress about the regulations.¹²⁸ Ultimately, Congress refused to allocate funding for the proposed TMDL program, and EPA shelved the new rule until April of 2003.¹²⁹

On March 19, 2003, under the current Bush administration, EPA withdrew the July 2000 rule, citing a need for significant changes and more time to evaluate how to revise the current regulations.¹³⁰ In its December 2002 notice of proposed rulemaking regarding the pending withdrawal of the rule, EPA acknowledged the three main issues that had initially led to the development of the July 2000 rule: (1) lack of progress in the TMDL program despite regulations in place, (2) stakeholder concern with lack of clarity in the existing TMDL program, and (3)

^{122.} See supra note 82.

^{123.} In July 2000, EPA issued a new TMDL rule that would have broadened the scope of TMDLs and imposed new requirements on the states. The rule established specific time frames under which EPA would assure that lists of waters not meeting water quality standards and TMDLs would be completed as scheduled, and would assure that the states implemented point and nonpoint source controls. 66 Fed. Reg. 53044 (Oct. 18, 2001). See infra note 129 and accompanying text.

^{124.} Houck, supra note 48.

^{125.} Id.

^{126.} Id. (citing Water Quality Standards: Agency Accused of Secret Meetings, Shoddy Science in TMDL Proposed Rule, 31 ENV'T REP. (BNA) 1429 (July 7, 2000)).

^{127.} See Houck, supra note 48.

^{128.} Id.

^{129.} Based on the strong congressional response, EPA initially deferred the effective date of the rule to October 2001. Congress then directed EPA to conduct analyses of the costs of the TMDL program, and to contract with the National Academy of Sciences (NAS) for a review of the quality of the science used to develop and implement TMDLs before making any decisions on the TMDL program. In June 2001, the National Research Council of the NAS released its report, which recommended increased spending on water quality monitoring and a two-step listing process. In July 2001, EPA Administrator Christie Whitman indicated in a Federal Register notice that the agency was reconsidering the rule. The notice officially postponed the effective date of the final TMDL rule to April 30, 2003. 66 Fed. Reg. 53044 (Oct. 18, 2001), *available at* http://www.epa.gov/owow/tmdl/defer/.

^{130. 68} Fed. Reg. 13608 (Mar. 18, 2003).

"environmental and public interest organizations had started filing lawsuits alleging that EPA should be held accountable, under the CWA, for its failure to oversee and supplement inadequate State 303(d) lisiting and TMDL establishment efforts."¹³¹ EPA also acknowledged that the intense political controversy that ensued after the rule was introduced had led to the agency's decision initially to delay the effective date of the rule's implementation by 18 months, and ultimately to withdraw it entirely.¹³² The withdrawal of the July 2000 rule, taken together with the court's holding in *Pronsolino* suggests that EPA's authority to regulate nonpoint source pollution, while affirmed in *Pronsolino*, has once again been stalled by political will such that implementation of the CWA, especially with respect to nonpoint source pollution, continues to elude federal control.¹³³

The political battle over nonpoint source pollution is being played out in state politics as well. For example, in November of 2002 California farmers faced expiration of a waiver that had exempted agriculture from regulation under the Porter-Cologne Act for the prior 20 years.¹³⁴ The Central Valley Regional Water Quality Board extended the waiver, but public comments from the Central Valley and beyond created a stir at the state board hearing.¹³⁵ Citizens want pesticide levels and sediment runoff regulated in the waters that ultimately reach their downstream environments, drinking water supplies, and the San Francisco Bay.¹³⁶ Both the proposed EPA rules and California's reconsideration of nonpoint source regulations illustrate the tension between the historically

134. CAL. WATER CODE §§ 13000-14958 (West 2002).

135. Lauren Whitley of the Clean Farms Clean Water Campaign noted that

[t]he success that WAS apparent at the hearing was the pouring in of comments from across the state: the staff held up a hefty stack of e-mails and another stack of lettersalmost all of 'em from our point of view. And we had 30-40 people at the hearing in support of the Clean Farms, Clean Water Campaign, as well as over 25 people testify.

Email from Lauren Whitley, campaign organizer, Clean Farms, Clean Water campaign (Dec. 8, 2002) (on file with the author).

136. See Clean Farms, Clean Water, Program Goals, at http://www.cleanfarms-cleanwater.org/index.htm (last visited June 4, 2003).

^{131. 67} Fed. Reg. 79023 (Dec. 27, 2002).

^{132.} Id. at 79024-25.

^{133.} In the response to comments issued with the final rule, EPA noted that "a small minority of commenters... disagreed with EPA's proposal to withdraw the July 2000 rule ... One commenter opposed withdrawal of the July 2000 rule because it believed that the rule was 'necessary' to 'aid in the control of nonpoint source pollution' "68 Fed. Reg 13611 (Mar. 19, 2003). EPA's response was simply that "EPA disagrees with this comment. EPA notes that there are numerous existing Clean Water Act authorities and programs, supplemented by other Federal and State programs and initiatives, that address nonpoint source pollution." *Id.* Much like the numerous regulations it refers to, this response fails to address specific ways in which EPA or the states will implement nonpoint source pollution reduction plans.

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well-funded, aggressive, and politically powerful agriculture and forestry lobbies, and the growing citizen awareness of and interest in clean water.

2. The Information Factor

Pronsolino adds a potent tool to this mix: information. The *Pronsolino* decision will result in a better-informed public. Once EPA or state agencies begin to develop TMDLs for sub-standard waterways, the public will be on notice that a problem exists. Citizens will realize that standards are being developed precisely because the rivers and streams in their neighborhoods do not meet water quality standards. While the Pronsolinos' attorney can comfortably remark today that TMDLs are merely regulations on paper,¹³⁷ it is doubtful that a knowing public will endure dirty water over the long run. As people learn that their water is polluted by pesticides and sediment runoff from agriculture and logging - activities subsidized by their tax dollars whose pollution is exempt from government regulation - they will speak up.¹³⁸ Eventually, this public involvement will have some impact.

A parallel can be drawn between the possible effects of establishing TMDLs and the procedural requirements of the National Environmental Policy Act-(NEPA).¹³⁹ NEPA generally requires that any entity proposing a federally authorized activity must submit an environmental impact statement (EIS) of varying detail (depending on the size and scope of the

^{137.} See supra note 91 and accompanying text.

^{138.} For example, the Clean Farms, Clean Water campaign illustrates the broad range of individuals and organizations interested in regulating nonpoint source pollution. The campaign includes the following members: Albany Coalition for Environmental Health, Boalt Environmental Law Society, Breast Cancer Action Butte Environmental Council, California Sportfishing Protection Alliance, Californians for Pesticide Reform, CALPIRG, Center for Environmental Health, California Trout, The Center for Ethics and Toxics, Center on Race Poverty & the Environment, Clean Water Action, Coast Action Group, El Comite Para El Bienestar de Earlimart, Community Clean Water Institute, Defenders of Wildlife, DeltaKeeper, Earthjustice Environmental Center of San Luis Obispo, Environmental Law Foundation, Friends of Butte Creek, Friends of the Tuolumne, Foothill Conservancy, Golden Gate Audubon Society, Heal the Bay, Jumping Frog Research Institute, Marin Audubon Society, Merced Green Party, Natural Resources Defense Council, Northern California River Watch, The Ocean Conservancy, Pacific Coast Federation of Fishermen's Associations, Pesticide Action Network, Physicians for Social Responsibility, Planning and Conservation League, Protect Our Water, Russian Riverkeeper, Sacrament River Preservation Trust, Safe Air for Everyone, San Diego BayKeeper, San Francisco BayKeeper, San Joaquin Audubon Society, San Joaquin Peace and Justice Network, San Joaquin Raptor Rescue Center, Santa Barbara Channelkeeper, Santa Monica BayKeeper, Save Our Streams, Save the American River Association, Sierra Club-California, Smith River Project, South Fork Trinity River Land Conservancy, South Yuba River Citizens League Surfers' Environmental Alliance, Town Hall Coalition, United Anglers, United Farm Workers.

^{139.} National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370 (2000).

proposed project).¹⁴⁰ By requiring the preparation of an EIS that, among other things, includes identification of preferred (environmentally less harmful) alternatives, authorizing agencies amass a wealth of information about the proposed activity. While critics complain that NEPA may find, but not mitigate, environmental impacts from federally authorized activities,¹⁴¹ its procedural requirements create valuable political organizing tools, occasions for public education, and opportunities for public participation in government decisionmaking. These processes' effectiveness in generating change ought not be underestimated.¹⁴² Similarly, developing TMDLs for nonpoint source-polluted water bodies creates a valuable opportunity for environmental organizations to organize public participation in the regulatory process.

C. Economic Incentives: Pay them or make them pay?

Besides litigation and political strategies, efforts to adopt marketbased solutions to nonpoint source pollution may be successful. This section explains some possible economic incentives.

1. Section 319's Failure to Reduce Nonpoint Source Pollution

The Clean Water Act provides no mechanism for controlling nonpoint source pollution beyond the economic "threat and promise" of federal pollution reduction grants to states under Section 319 of the Act.¹⁴³ Unfortunately, this provision has largely failed as an economic incentive to reduce nonpoint source pollution.¹⁴⁴ Much like its predecessor, Section 208, Section 319 fails to provide sufficient incentives to the states because of its voluntary nature.¹⁴⁵ Likewise, farmers and loggers have little economic incentive to participate in voluntary pollution reduction.¹⁴⁶ Costs of nonpoint source pollution are thus externalized and borne by downstream water users, health care systems, fishermen, and taxpayers at large.

146. Id.

^{140.} Id.

^{141.} See Bradley C. Karkkainen, Toward a Smarter NEPA: Monitoring and Managing Government's Environmental Performance, 102 COLUM. L. REV. 903, 905 (2002).

^{142.} For a thoughtful essay on the efficacy of public comment under the current administration, see Seth Zuckerman, Paper or Passion: Time for Enviros to Craft Tactics that Suit the 21st Century, TIDEPOOL DISPATCH, December 6, 2002, at http://www.tidepool.org/dispatches/paper.cfm.

^{143.} Pronsolino, 291 F.3d at 1126 (quoting Oregon Natural Desert Assoc. v. Dombeck, 172 F.3d 1092, 1096 (9th Cir. 1998)).

^{144.} See Zaring, supra note 19, at 526-28.

^{145.} Id.

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2. Market- Based Alternatives to the Current Scheme

Scholars and practitioners have proposed several alternatives to the present scheme of doling out federal monies to the states that reduce pollution under Section 319 of the Act. Some have suggested adopting the 'polluter pays' principle often favored by economists.¹⁴⁷ Under such a system, each unit of pollution discharged would have a charge or tax attached to it, making the cost of pollution part of the cost of production for logging, farming, manufacturing, or development.¹⁴⁸ Polluters can thus decide how much they intend to pollute, and be taxed accordingly.¹⁴⁹ The potential benefits of such a scheme include tax breaks for nonpoint source polluters who develop innovative techniques to limit discharges, which could in turn speed up the development of more advanced technology. Economists suggest that a pollution tax is a better way to address nonpoint source pollution than other market-based schemes such as those explained below, because it would require decreased administrative costs, encourage experimentation with pollution reduction strategies, and maximize the strengths of both polluters and governments.¹⁵⁰ One potential problem with such a scheme is the risk of making farming so expensive that farmers cannot meet their costs and are forced out-of business or into unmanageable debt.¹⁵¹ Also, this solution requires addressing the ever-present challenge of discerning where nonpoint source pollution originates, which creates doubt as to how to fairly levy taxes. Of course, the political challenge of raising taxes, particularly taxes levied on farmers and loggers, presents its own problems.¹⁵² Additionally, it is unclear how such taxes would be implemented. Measuring erosion to tax it, for example, could prove costly and inefficient.153

To address agricultural pollution, in lieu of the current scheme or the tax system described above, the federal government could condition the issuance of federal crop insurance on the use of environmentally sustainable farming practices.¹⁵⁴ Decreased premiums could be offered to

153. Zaring, supra note 19 at 535.

^{147.} See, e.g., A. Myrick Freeman III, Water Pollution Policy, in PUBLIC POLICIES FOR ENVIRONMENTAL PROTECTION 97, 132 (Paul R. Portney ed., 1990).

^{148.} *Id*.

^{149.} Zaring, supra note 19 at 533.

^{150.} Id.

^{151.} Id. at 534.

^{152.} See supra section IV(B).

^{154.} See Mandi M. Hale, Comment, Pronsolino v. Marcus, the New TMDL Regulation, and Nonpoint Source Pollution: Will the Clean Water Act's Murky TMDL Provision Ever Clear the Waters?, 31 ENVTL L. 981, 1009 (2001).

those who utilize environmentally sound practices.¹⁵⁵ While it is unclear how this proposal would extend to logging or other nonpoint pollution sources, it offers a far more direct and tangible incentive than the CWA's Section 319 scheme of threatening to withhold grant money.

A third option is to amend Section 319 of the CWA to make the provision function more like Section 179(b)(1) of the Clean Air Act, which withholds state highway funds if the state fails to submit a State Implementation Plan (SIP) or submits a SIP that EPA disapproves.¹⁵⁶ Section 179, added to the Clean Air Act in the 1990 Amendments, requires EPA to impose sanctions on states that fail to bring their implementation plans into compliance with air quality standards within 18 months.¹⁵⁷ Under this section, EPA has, in fact withheld federal highway and sewage treatment funds from states that failed to meet air quality standards or did not implement vehicle inspection and maintenance programs required by the Clean Air Act.¹⁵⁸ Arguably, the withholding of funds in other areas for failure to implement TMDLs would incentivize states to clean up their waters.

Pollution trading markets are another increasingly popular economic proposal.¹⁵⁹ For example, point-nonpoint source trading under the CWA would involve point source dischargers paying to abate nonpoint source runoff. In exchange, dischargers would not be required to engage in additional, often more expensive, high technology effluent treatments that would otherwise be necessary to achieve water-quality standards.¹⁶⁰ While appealing to some economists, such a program faces significant obstacles. For one, the Clean Water Act does not explicitly- authorize market-based incentives for pollution control.¹⁶¹ In January of 2003, EPA

158. Dwyer, supra note 156, cited in PERCIVAL, supra note 8, at 812.

161. Id. at 71. The Clean Air Act does though. Id.

^{155.} See Federal Crop Insurance Act, 7 U.S.C. § 1508 (2000) for information about the federal crop insurance policy.

^{156. 42} U.S.C. § 7509(b)(1) (2000). See John P. Dwyer, The Practice of Federalism Under the Clean Air Act, 54 MD. L. REV. 1183, 1208-1211 (1995); see also Virginia v. Browner, 80 F.3d 869 (4th Cir. 1996).

^{157. 42} U.S.C. § 7509.

^{159.} See, e.g., Paul R. Portney, The Evolution of Federal Regulation, in PUBLIC POLICIES FOR ENVIRONMENTAL PROTECTION, supra note 147, at 7, 18; Richard D. Horan and James S. Shortle, Environmental Instruments for Agriculture, in ENVIRONMENTAL POLICIES FOR AGRICULTURAL POLLUTION CONTROL 19, 25 (J.S. Shortle and D. Abler eds., 2001).

^{160.} Bartfeld, supra note 27. See also Arun Malik et al., Agricultural Nonpoint Source Pollution and Economic Incentive Policies: Issues in the Reauthorization of the Clean Water Act (Resources and Technology Division, Economic Research Service, U.S. Department of Agriculture Staff Report No. AGES 9229) November 1992 at 9. The authors of this report suggest that any improvements in NPS management using individual economic proposals should be expected to be modest. They advocate for combining economic incentives with traditional command-and-control regulatory policies, with the choice of instruments dictated by the characteristics of the particular pollution problem.

issued a new water quality trading policy, through which the agency intends to advance this approach under existing provisions of the Clean Water Act.¹⁶²

3. Regional Watershed-Based Management

One final avenue for improvement involves regional, watershedbased approaches to nonpoint source pollution regulation. This approach has already seen some practical success. For example, Environmental Defense, a major nonprofit environmental organization, proposed a system in California's San Joaquin Valley to make farmers accountable for their discharges. Using a watershed-based approach, farmers formed a regional entity, developed a formal discharge allocation system that included sanctions for noncompliance, and designed an inter-district trading system subject to regional discharge allocations. The trading system provides farmers flexibility to adjust initial allocations and react to changing farming conditions.¹⁶³ By the third year of the program, discharges had dropped to 75% of the allowable load.¹⁶⁴

Legal scholars have advocated for just such a model, calling it a "regional drainage district."¹⁶⁵ Under this proposal, a new, local-level administrative agency would be responsible for: (1) ensuring regional compliance with ambient water quality standards, (2) allocating a regional allowable pollution load among its member districts, and (3) administering a system of tradable discharge permits.¹⁶⁶ This type of regional, watershed-based approach creates accountability for pollution control among nonpoint source polluters, and avoids the regulation of a specific method of mitigation or pollution control employed by each polluter. Insofar as this localized approach imparts accountability, it would be a vast improvement over the current scheme, which suffers from the diffuse nature of nonpoint source pollution and the related difficulty regulators face when determining the source of erosion or enforcing a federally authorized TMDL. The regional drainage district system also avoids the many administrative and technological burdens and political opposition posed by other schemes. Given the obstacles

^{162.} U.S. Environmental Protection Agency, 2003 Water Quality Trading Policy, January 13, 2003, available at http://www.epa.gov/owow/watershed/trading/tradingpolicy.html.

^{163.} See Environmental Defense Fund, Nonpoint Source Pollution Control: Breaking the Regulatory Stalemate (on file with author).

^{164.} Id.

^{165.} Chelsea H. Congdon et al., Economic Incentives and Nonpoint Source Pollution: A Case Study of California's Grasslands Region, 2 HASTINGS W. - NW. J. ENVTL. L. & POL'Y 185, 229 (1995).

^{166.} Id.at 229, 235.

presented by other solutions, the regionally-based approach may offer the most promise for addressing nonpoint source pollution.

CONCLUSION

While the *Pronsolino* decision itself represents only limited progress toward stricter regulation of nonpoint source pollution, it leaves the door open for federal regulation to work in tandem with other approaches to reduce nonpoint source pollution. The Clean Water Act itself lacks provisions that would allow EPA to enforce its TMDLs, and proposed rules designed to strengthen implementation of TMDLs have been shelved indefinitely by the current Bush Administration. Recognizing these obstacles, environmental advocates will need to employ other legal, political, and economic strategies to reduce nonpoint source pollution. The most likely of these strategies to effect significant change in the regulation of nonpoint source pollution is a regionally-based approach, given its cooperative nature and the accountability it imposes on polluters.