The Myths and Truths that Ended the 2000 TMDL Program

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Thirty years in the making, the total maximum daily load (TMDL) program of section 303(d) of the Clean Water Act has never seemed farther from effective implementation. As state governments increasingly have flexed their regulatory muscles with respect to the environment, ironically they have shied away—to put it mildly—from their environmental responsibilities under the TMDL program. Their reticence and outright opposition to their obligation to improve water quality are that much more striking given their adamant insistence that this obligation be reserved to and exercised by them in 1972.

After reviewing the checkered history of the program since 1972, state criticism of the program will be examined for its validity. Below the shallow surface of these criticisms, some unpleasant truths emerge for state opposition to the very purpose of the TMDL program, a purpose necessary to improving the water quality of impaired waters within the United States. In light of these truths, and the Bush administration's withdrawal of the final regulatory program, the dim prospects for the program will be projected. Finally, one inevitable truth emerges—the only insurmountable problem with the TMDL program is the lack of political will, at the state and federal levels, to implement it with mandatory controls on nonpoint source pollution.

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This article is based in part on an earlier article, The Myths and Truths that Threaten the TMDL Program, 32 Envtl. L. Rep. (Envtl. L. Inst.) 11133 (Sept. 2002), and updated to demonstrate how the dire predictions in that article for the 2000 TMDL program were realized.
A Troubled Past

Established in the 1972 Clean Water Act, the TMDL program set forth in section 303(d) provides a process for identifying waters that fail to satisfy state water quality standards, calculating the TMDLs of a pollutant that a water body can assimilate while maintaining applicable water quality standards, and incorporating TMDLs into the state quality planning process. However, the potential in the TMDL program has not been fully utilized. Following the 1972 amendments, the Environmental Protection Agency (EPA) was kept busy establishing point source standards and forcing states to set state water quality standards that adequately protected existing water qualities and uses.¹

In the struggle to achieve these goals, the EPA sidelined the TMDL program, delaying the identification of pollutants appropriately included in the TMDL program, trying to instead achieve the goals of the TMDL program through its basin planning program.² Although a court order finally forced the EPA to identify the TMDL pollutants,³ the EPA continued to allow states to ignore their obligation to submit their TMDLs.⁴ Fortunately for the TMDL program, a series of citizen suits beginning in the 1980s began to address this inaction, establishing the doctrine of “constructive submission,” whereby the continued non-submission of TMDLs by a state eventually becomes the submission of no TMDLs, which requires the EPA to step in and promulgate acceptable TMDLs on the state’s behalf.⁵ Initially, it nevertheless seemed as though any state submission, no matter how minimal, would satisfy this requirement.⁶ However, further litigation made

². Id. at 50.
⁴. Houck, supra note 1, at 51.
it clear that EPA approval of unreasonably minimal state TMDL submissions would not be acceptable; utterly inadequate TMDL submissions still triggered the necessity for the EPA to either work with the state to reach a more acceptable solution or to step in with its own TMDL list.\(^7\)

In the light of this litigation, the EPA began taking a more aggressive approach towards the TMDL program. In November 1996, the EPA provided further guidance to the states by updating its 1991 guidelines through a draft *TMDL Program Implementation Strategy*, (Strategy) which recognized the importance of TMDL allocations in the watershed approach, extended the frequency of reporting obligations, combined report categories, and established many EPA resources for assistance in TMDL development.\(^8\) However, the *Strategy* did not resolve many problematic issues, including the scope of eligible waters within the TMDL program, the degree of scientific certainty necessary, and the role of nonpoint sources in the TMDL program.\(^9\) In 1996, the EPA convened a committee under the Federal Advisory Committee Act (FACA) to obtain a diversity of viewpoints in resolving these problems.\(^10\) Despite reaching an agreement over a number of difficult issues, the Committee failed to reach a consensus on whether the TMDL process should be used to address nonpoint source pollution.\(^11\) At that point in time, the EPA then proceeded to integrate these recommendations into its revision of the existing TMDL regulations.\(^12\)

While the EPA was undergoing the notice-and-comment procedure in the TMDL regulations revision process, Congress also began involving itself in the TMDL issue. The House Transportation Committee's Subcommittee on Water Resources and the Environment held hearings on the program and the proposed changes.\(^13\) As a result of these hearings, Congress instructed the General Accounting Office (GAO) to address certain concerns...
raised by the hearings, primarily whether sufficient data was available to scientifically determine which bodies of water were impaired, what TMDLs would be appropriate, and what the economic impact of the new regulations would be.\textsuperscript{14} The GAO expressed substantial concerns on both issues, emphasizing uncertainties both in the available data and the EPA's economic analysis of the proposed regulations.\textsuperscript{15} Despite this negative input from Congress, the EPA promulgated its revised TMDL rule in July 2000.\textsuperscript{16} The final rule included several changes that substantially affect the TMDL process. For example, nonpoint sources of pollution were explicitly included within the TMDL framework.\textsuperscript{17} States had to schedule the establishment of TMDLs within ten years as of July 10, 2000, or the due date on the first list on which the waterbody appeared, although this schedule might be extended for five years if the original deadline could not be met despite expeditious action.\textsuperscript{18} Moreover, the new regulation required that all impaired water bodies, even those for which TMDLs were not yet required, be placed on a four-part list and prioritized.\textsuperscript{19} States were further required to provide an implementation plan and a "reasonable assurance" that TMDL wasteloads and load allocations would be met.\textsuperscript{20}

Some of the changes included in the new rule were controversial, especially the provisions addressing nonpoint sources and the revisions to the TMDL schedule, and both legal and political challenges resulted.\textsuperscript{21} The American Farm Bureau Federation, concerned about the implications of the inclusion of nonpoint sources

\textsuperscript{14} \textit{Id.}


\textsuperscript{16} Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation, 65 Fed. Reg. 43,586 (July 13, 2000) (to be codified at 40 C.F.R. pts. 9, 122, 123, 124, & 130).

\textsuperscript{17} \textit{Id.} at 43,588.

\textsuperscript{18} \textit{Id.} at 43,590-91.

\textsuperscript{19} \textit{Id.} at 43,590.

\textsuperscript{20} \textit{Id.} at 43,591.

\textsuperscript{21} Rogers & Hazlett, \textit{supra} note 12, at 5.
The TMDL program, immediately filed a petition to challenge the new regulation. Other special interest groups followed suit. Interested parties have also managed to make themselves felt legislatively, persuading Congress not only to prohibit the EPA from using any money from fiscal years 2000 or 2001 to fund the changes, but also to insist that the EPA hire the National Research Council of the National Academy of Sciences (NRC) to analyze the TMDL program and the new regulation. Congress required NRC to determine: (1) what information is necessary to determine the sources of pollution, the degree to which each source impairs water quality, and how pollutant reductions should be allocated among sources; (2) if that information can be reliably obtained by the states, and, if the information is not already available; (3) what methodology should be used to gain the information. The NRC committee determined that there is enough scientific information available to enable the TMDL program, finding that any scientific uncertainty could easily be compensated for in the process of fulfilling the TMDL program's goals, although it emphasized that scientific uncertainty should not be allowed to form the basis for unreasonable expectations. The committee also made a number of recommendations that it felt would improve the TMDL program and expedite the achievement of its goals. It stated, somewhat wryly, that success in the TMDL program should be strictly predicated upon whether a waterbody could support its designated use, to ensure that states do not lose sight of the ultimate goal. The committee also recommended that the TMDL program include not only physical and chemical pollutants, but also all other impacting conditions that either positively or negatively affect water quality. It made several more specific recommendations regarding the TMDL program, includ-

27. Id.
28. Id. at 23-25.
29. Id. at 36-37.
ing the designation of appropriate uses before the development of the TMDL list, the use of biological as well as physical and chemical criteria in determining water quality achieved, and more periodic assessment of TMDL plans.\textsuperscript{30}

In response to these reactions, the EPA proposed to delay the effective date of the revised, final regulation for eighteen months, from October 1, 2001 to April 30, 2003.\textsuperscript{31} The EPA also proposed to extend the deadline for the 2002 submission of states’ lists of impaired waters from April 1, 2002 to October 1, 2002,\textsuperscript{32} with the extended deadline to allow for reconsideration of certain aspects of the revisions, in light of the reactions to the revised rule and the NRC report.\textsuperscript{33} Reactions to the proposed delay were decidedly mixed; farm groups and industry generally supported it, while environmental groups opposed it.\textsuperscript{34} Farm groups in particular objected to the rule’s regulation of nonpoint source pollution as beyond EPA’s authority, and the requirement of implementation plans as federal presumption of local land-use policy.\textsuperscript{35} These groups also supported the delay for states to submit their lists of impaired waters.\textsuperscript{36}

On October 18, 2002, EPA issued a final rule delaying the effective date of the July 2000 rule until April 30, 2003. On December 27, 2002, EPA went one step further and proposed to withdraw the July 2000 rule itself, which had yet to go into effect. On March 19, 2003, EPA signed a final rule withdrawing the July 2000 rule. Prior to the withdrawal within the EPA Office of Wastewater Management, agency staff had focused on development of

\textsuperscript{30} Id.
\textsuperscript{31} Delay of Effective Date of Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulations; and Revision of the Date for State Submission of the 2002 List of Impaired Waters, 66 Fed. Reg. 41,817 (Aug. 9, 2001).
\textsuperscript{32} Id.
\textsuperscript{33} Id.
\textsuperscript{34} Susan Bruninga, Effluent Guidelines: Draft Strategy for Reviewing, Revising Existing Guidelines expected in November, 32 Envtl. Rep. (BNA) 1829 (Sept. 21, 2001). The Federal Water Quality Coalition filed one of about a dozen petitions for review of the July 2000 rule. For examples, see Am. Farm Bureau Fed’n v. Whitman, No. 00-1320 (D.C. Cir. July 18, 2000), and consolidated cases.
\textsuperscript{35} Bruninga, supra note 34, at 1829.
\textsuperscript{36} Id. EPA subsequently circulated a draft report on the total estimated costs of the TMDL program, which reported that the costs to the industry to implement the TMDL program could range from under $1 billion to $4.3 billion annually. EPA, The National Costs of the Total Maximum Daily Load Program (Draft Report) (2001).
a pollutant-trading program to be incorporated into the TMDL program. The EPA assistant administrator for water indicated that watershed trading is more difficult than air pollutant trading because it is more site-specific and pollutant specific. Nevertheless, the EPA issued a final water quality trading program on January 13, 2003. EPA is touting its watershed policy as a partial solution to the complex problems presented by improving water quality, as “[t]rading capitalizes on economics of scale and the control cost differentials among and between sources.” EPA hopes the trading policy will encourage compliance with TMDLs by lowering the cost of compliance for industries.

On the litigation front, the Supreme Court may choose to decide a challenge to EPA’s authority to establish TMDLs for water bodies impaired by nonpoint source pollution. Landowners have challenged EPA’s decision to establish TMDLs for waters affected solely by sediment runoff from logging operations. In Pronsolino v. Marcus, plaintiff, having applied for a timber-harvesting permit, received the permit from the California Department of Forestry with many serious restrictions attached, designed to reduce soil erosion into the Garcia River. The EPA had designated the


Various federal agencies, including the Environmental Protection Agency, Department of the Interior, Department of Agriculture, Department of Commerce, etc., have agreed upon a final comprehensive science-based approach to watershed delineation and assessment on federal lands. See Notice of Final policy—Unified Federal Policy for a Watershed Approach to Federal Land and Resource Management, 65 Fed. Reg. 62,566 (Oct. 18, 2000), available at http://cleanwater.gov/ufp/objectives. Factors affecting the wetlands will be considered when determining the best management practices and priorities for both land and water uses. The agencies’ watershed goals will involve minimizing adverse water quality impacts from management programs, minimizing the impairment of current and future uses, and restoring watersheds that do not reach water quality standards.


41. Pronsolino, 91 F. Supp. 2d at 1337.

42. Id. at 1338.
Garcia to be a water body that was in violation of its water quality standards due to nonpoint source pollution, and thus required the state to establish total maximum daily loads for the Garcia River. The state missed its deadline to submit its own TMDLs, whereupon the EPA imposed its own TMDLs on the state. The TMDLs established a total maximum amount of sediment loading that equated to a 60% reduction in sediment pollution from all combined sources, including nonpoint sources such as timber harvesting. The plaintiff argued that its permit restrictions were directly caused by the EPA's TMDL standard, as the California Department of Forestry would not issue any permit that could violate it for fear of losing funding. The plaintiff then brought suit under the Administrative Procedure Act, challenging the EPA's interpretation that the Clean Water Act allows it to establish TMDLs on rivers polluted solely by nonpoint source pollution.

The Court evaluated the statutory language of the Clean Water Act, and noted that section 303, which requires the states to create EPA-approved water quality standards or to have the EPA impose standards upon them, did not draw any distinctions among navigable waters or their pollutants. The court instead found that the mandatory planning process of section 303, in order to insure the adequate implementation of water quality standards for all navigable waters, required the EPA to address nonpoint as well as point sources in approving or determining TMDLs.

Upon appeal, the Ninth Circuit affirmed the decision of the lower court, holding that the determination of the TMDL for the river by the EPA did not violate the state-federal balance of control as established by the CWA. The Court reasoned that the TMDL program requires individual state determination by requiring states to create, implement and monitor effluents in their waters and rivers, as well as perform adequate planning, including schedules of compliance, for new or revised water quality standards.

43. Id. at 1339-40.
44. Id. at 1339.
45. Id. at 1340.
46. Id. at 1338.
47. Pronsolino, 91 F. Supp. 2d at 1338.
48. Id. at 1344-45.
49. Id. at 1347.
50. Pronsolino v. Nastri, 291 F.3d 1123 (9th Cir. 2002), cert. filed, 71 USLW 3531 (Feb. 6, 2003).
In December 2000, Montana submitted a total maximum daily load plan designed to relieve impairments to water quality caused by reduced flow in water bodies by adjusting water withdrawal. Although EPA officials commended the plan, the EPA refused to set a precedent for approving solely flow-based TMDLs, stating that the Clean Water Act only required TMDLs for situations resulting from pollutants. The EPA went on to state that flow alterations are not included in the Clean Water Act's definition of a pollutant. Montana officials stated that the state would probably attempt to address water flow concerns on a voluntary basis with water users, while focusing its resources on the actually required TMDLs.

In American Wildlands v. Browner, appellant challenged the Environmental Protection Agency's approval of some of Montana's water quality standards under the Clean Water Act. Under the Clean Water Act, the states are required to develop water quality standards for waters within their boundaries. In promulgating these standards, the states must give each body of water a "designated use," determine and set forth the degree to which various pollutants may be present in the water body without harming the designated use, and provide an "antidegradation review policy" to allow the states to evaluate any activities that might further degrade water quality. The antidegradation review policy must be consistent with the three-tier federal antidegradation policy. Furthermore, the states must identify any body of water that does not meet its standard and set forth a "total maximum daily load" establishing the maximum amount of various pollutants that can enter the water body from all combined sources. However, EPA regulations permit states to allow water quality requirements to be exceeded in certain areas where pollutant discharge initially meets a water body, so-called "mixing areas," so long as certain criteria are still met. After developing its

52. See id.
53. 260 F.3d 1192 (10th Cir. 2001).
54. Id. at 1193.
55. Id. at 1194 (citing 33 U.S.C. § 1313 (2000)).
56. Id. at 1194 (citing 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 130.3, 130.10(d)(4), 131.6, 131.10, 131.11 (2003)).
57. Id.
58. Id. at 1194 (citing 33 U.S.C. § 1313(d)).
59. Am. Wildlands, 260 F.3d at 1195 (citing ENVIRONMENTAL PROTECTION AGENCY, WATER QUALITY STANDARDS HANDBOOK §§ 5.1.1, at 5-5 (2d ed.1994)).
standards, each state must submit those standards to the EPA for approval.\textsuperscript{60} If the EPA disapproves of the standards, it must notify the state of any necessary changes, and if those standards are not made, the EPA is required to impose appropriate standards on the state.\textsuperscript{61}

Appellants challenged the EPA’s approval of Montana’s antidegradation and mixing zone policies.\textsuperscript{62} Montana’s standards had exempted existing nonpoint sources from Tier II antidegradation review, and had further exempted subsequent nonpoint sources from such sources when reasonable conservation practices were used and beneficial uses were protected.\textsuperscript{63} Montana also exempted mixing zones from its antidegradation review policy, so long as the degradation to the water body at the periphery of the mixing zone was not significant, although Montana did develop a number of other strict requirements regarding mixing areas.\textsuperscript{64} The district court found that the EPA’s approval of these standards was proper, and affirmed the lower court’s decision.\textsuperscript{65}

The court first determined that Congress had delegated its authority to the EPA to apply and interpret the Clean Water Act, both in general and in this specific instance, and its interpretation was therefore entitled to \textit{Chevron} deference and would not be overturned unless the agency’s decision was arbitrary and capricious.\textsuperscript{66} The court then determined that as the Clean Water Act does not give the EPA the authority to regulate nonpoint source pollution, instead merely requiring states to address the issue through their standards and so forth, the EPA was reasonable in interpreting that it could not disapprove an antidegradation policy on the sole basis of how that policy addressed the issue of nonpoint source pollution.\textsuperscript{67} The court then turned to the EPA’s argument that antidegradation review requirements apply to a waterbody as a whole, rather than to a segment such as a mixing zone.\textsuperscript{68} The court found that this interpretation was reasonable, especially given the practical reality beneath mixing zones, and found that

\begin{footnotesize}
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  \item 60. \textit{Id.}
  \item 61. \textit{Id.} at 1194 (citing 33 U.S.C. §§ 1313(c)(3)-(4)(A) (2000)).
  \item 62. \textit{Id.} at 1196.
  \item 63. \textit{Id.} at 1195 (citing \textit{Mont. Code Ann.} § 75-5-317(2)(a)(b) (2002)).
  \item 64. \textit{Id.} (citing \textit{Mont. Admin. R.} §§ 17.30.715(1)(c), 17.30.505(1)(b); \textit{Mont. Code Ann.} § 75-5-301(4); \textit{Mont. Admin. R.} §§ 17.30.505(1)(c), 17.30.506(1)).
  \item 66. \textit{Id.} at 1197.
  \item 67. \textit{Id.} at 1198.
  \item 68. \textit{Id.}
\end{itemize}
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the EPA was not arbitrary and capricious in approving Montana’s exemption of mixing zones from antidegradation review so long as review of the water around such zones indicates that the overall water quality is not being damaged.69

The litigation and controversy over the TMDL program has to be viewed against the backdrop of the problem of nonpoint source pollution, particularly from large-scale agriculture, and reticence at the federal level to do anything more than fund voluntary controls. The EPA has requested comments on its proposed draft for technical guidance for managing agriculture nonpoint source pollution.70 The guidance provides background information on the problem as well as information on up-to-date reduction methods.71 The comment period for the notice of a draft, which offered technical guidance for managing nonpoint sources of water pollution from agriculture, published on October 17, 2000, required that comments sent by mail be postmarked no later than January 16, 2001.72

In January 2001, the EPA announced a proposed rule that would change the permitting requirements for concentrated animal feeding operations (CAFOs).73 The EPA asked for comment on two options for defining CAFOs under NPDES permitting. The first option would establish a two-tiered system, designating all facilities with greater than 500 animal units as CAFOs and granting discretion to the permitting authority to determine whether smaller facilities are CAFOs.74 The other option would establish a three-tiered system, designating all facilities with more than 1000 animal units as CAFOs, designating all facilities with 300-1000 animal units that meet certain other conditions as CAFOs, and granting discretion to the permitting authority to determine that any facility is a CAFO, no matter what the size.75 Under the proposed rule, the number of facilities classified as CAFOs and subject to permitting would increase to as

69. Id.
74. Id. at 2,962.
75. Id.
many as 39,000 from the current level of 2500. The proposed rule would also expand permitting to include dry-manure poultry operations and stand-alone immature swine and heifer operations.\textsuperscript{76} EPA officials stated that the new regulations were not intended to cover operations that used concentrated feeding practices during the winter and stressed the need for public comment and input to cover situations they had not thought of.\textsuperscript{77} Environmentalists were critical of the proposal, in part because the proposal did not address the possibility of phasing out lagoons to store animal waste.\textsuperscript{78} As with the TMDL proposal, the CAFO proposed rule generated a firestorm of sharply divided comments. Agricultural groups contended the proposed requirements for nonpoint pollution were not authorized by the Clean Water Act, would be excessively costly, and challenged the co-permitting requirements designed to extend responsibility beyond contract growers to the corporations that own the livestock.\textsuperscript{79} State officials contended the rules would undermine functionally equivalent state programs. Environmental groups, however, supported the proposal as long overdue regulation of CAFO's.\textsuperscript{80}

On December 16, 2002, EPA announced a final rule for CAFO regulation.\textsuperscript{81} The final rule “will ensure that CAFO’s take appropriate actions to manage manure effectively . . . .” Noteworthy changes for the new regulation include: (1) all CAFO’s are required to apply for an NPDES permit; (2) large poultry operations are included; (3) all CAFO’s covered by an NPDES permit must develop and implement a nutrient management plan; (4) effluent

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\item See Tripp Waltz, Concentrated Winter Feeding not Covered by EPA Proposal on Feedlot Runoff Control, 32 Env't Rep. (BNA) 605 (Mar. 30, 2001).
\item Whetzel, supra note 78, at 495.
\end{enumerate}
\end{footnotesize}
limitation guidelines regulations will apply only to large CAFO's (continuing 1000 or more animals). 82

Prior to issuing the proposed CAFO rules, the EPA approved a final project agreement to allow egg producers to develop an environmental management system (EMS) and allow states to issue general CWA permits for these operations. 83 The EPA viewed the project as a way to bring more of the operations into the regulatory regime more quickly, pending a change in the CAFO regime that would include “dry litter” operations. 84 Environmentalists were critical of the plan, saying that it would “reward some of the most egregious violators of the Clean Water Act.” 85

Another blow to the much-maligned TMDL program occurred when the General Accounting Office issued a report highly critical of the identification process for impaired waters utilized by the states. 86 The report, entitled “Water Quality: Inconsistent State Approaches Complicate Nation’s Efforts to Identify Its Most Polluted Waters,” was prepared for the House Transportation Subcommittee on Water Resources and Environment. 87 The first major flaw was the reliance on one method of identification—by either biological, chemical, or physical monitoring—rather than upon all three as recommended by the U.S. Geological Survey. Complicating designation are widely differing state definitions of designated uses in the state water quality standards against which impairment is measured. For example, Virginia designated all waters for swimming even though some are not suitable for swimming for reasons unrelated to water quality, such as inaccessibility and shallowness. 88 When such inherently unswimmable waters are then affected by bacteria from wildlife use, they are listed as impaired for a designated use for which they are inherently unsuitable. Listing also varies greatly based upon whether states utilize data less than five years old (monitoring data) or

82. See id.
84. See id. at 2,326.
85. See id. at 2,325. On local regulation of CAFO's, see generally Thomas R. Head, III, Local Regulation of Animal Feeding Operations: Concerns, Limits, and Options For Southeastern States, 6 ENVTL. LAW. 503 (2000).
88. VA. CODE. ANN. § 62.1-44.5 (Michie 2002).
older than five years (evaluative data), or their use of fish advisories in determining impairment. In November 2001, EPA had released the 2002 Integrated Water Quality Monitoring and Assessment Report Guidance\textsuperscript{89} to encourage more uniformity in assessment, but it would appear the impact of the Report is yet to be demonstrated. EPA tersely deemed the findings of the GAO's report to be "reasonable."\textsuperscript{90}

The Myths and the Truths

What can be said with certainty about all of this? Actually, quite a lot. Despite thirty years of technological controls, many water bodies and segments fail to meet basic, reasonable goals for their water quality. The largest single source of contamination by discharge is nonpoint source pollution. Nonpoint source pollution continues to be the largest source of contamination, despite section 201 waste treatment planning, sections 106 and 303(e) water management planning, area-wide management plans under section 208, section 209 basin planning, the nonpoint source pollution planning program under 319, and general watershed planning.\textsuperscript{91} A significant amount of state, federal and local money has gone into these programs. There has been a lot of planning. There are still no federally imposed mandatory controls on nonpoint source pollution. Agricultural pollution, point source as well as nonpoint source, has been largely unregulated.\textsuperscript{92}

And one more thing, no regulatory agency or governmental entity wants to do what is clearly necessary to correct the problem. There is nothing unique about the difficulties of implementing the TMDL program other than the political stakes involved. Every environmental program of the past thirty years has had to grapple with scientific uncertainty, allocation of enforcement authority, inconsistencies in monitoring, and variances in state and federal approaches. The irony of states' resistance to the TMDL program today is that its essential elements are exactly what they fought to preserve in 1972 when the Clean Water Act was passed as we know it today.


\textsuperscript{90} Ferrulo, supra note 86, at 358.

\textsuperscript{91} For background information see EPA's guidance documents available at http://www.epa.gov/owow/nps/pubs.html (last updated Feb. 3, 2003).

\textsuperscript{92} See e.g., 33 U.S.C. § 1362(14) (2000).
The Clean Water Act was passed to correct the failings of the water-quality based approach of the earlier act—primarily problems in enforcement due to the difficulty of attributing responsibility for degraded water quality to a single source in the context of hit-and-miss enforcement litigation. Instead, the 1972 version imposed nationally uniform, technology-based standards on dischargers in individual permits whose terms could be more easily monitored and enforced, by governmental and private plaintiffs.

The 1972 Act, however, did not displace the preexisting system of state water quality standards. State and local governments lobbied ardently for its preservation, asserting that they were the best stewards for determining and ensuring that localized water quality conditions were what they should be. In essence, imposition of the point source, technology-based controls of the 1972 Act, which for the next three decades often seemed to be the ultimate goal of the new act, were intended to be phase one to get the ball rolling. The legislative intent was to impose nationwide standards, for all their unavoidable localized inefficiency, as the first layer of regulation, with more stringent regulation to be imposed through state water quality standards where necessary to achieve the fishable and swimmable goals of the Act. This point bears repeating. Preservation of water quality standards served one critical purpose—to impose stricter controls than those mandated in the other provisions of the act to ensure that the demanding goals of the act for water quality were met when end-of-the-pipe controls were not enough.

State and local governments and regulators were well aware of this purpose and what it would entail; it was for that very reason they fought to reserve the responsibility to themselves rather than to another stage of federal regulation. If progressively demanding technology-based controls on point sources failed to achieve water quality goals, inevitably meaningful controls on nonpoint source pollution would have to be implemented. However phrased, as "best management practices" for example, nonpoint source controls implicate standards and controls for land use activities—a regulatory authority state and local governments were reluctant to cede to the federal government. Rather than do so, they convinced Congress they were not only the appropriate,

but also the best, public authorities to implement the second and most critical stage of water quality achievement.\(^{94}\)

What then, if anything, has changed since 1972 to make the states so hesitant if not outright obstructionist toward the achievement of their own water quality standards? Is the TMDL program to implement the standards to blame? The states’ problems with and objections to section 303(d) were not tied to any particular Administration’s regulatory implementation of the program. EPA itself refrained from identifying the pollutants for which TMDLs had to be set, putting the entire program in limbo, until forced to identify the pollutants by citizen suits. The language of section 303(d), relatively clear by the standards of environmental statutory drafting, remained unchanged from 1972. When the time came (and passed) for TMDLS to be determined and implemented, were there difficulties that had not been contemplated or foreseen in 1972 that would explain this change in attitude?

In his excellent history and analysis of the TMDL program, Professor Oliver Houck debunks the myth that nonpoint source pollution is somehow more difficult to regulate. He convincingly demonstrates that nonpoint source pollution is not more varied, more site-specific, or more difficult technologically to control.\(^{95}\) Nevertheless, the TMDLs that have been provided to EPA tend to avoid controlling nonpoint source pollution, do not calculate their share of the allocation load, or both. States failed to submit inventories of impaired waters, rank them, promulgate TMDLs, and incorporate them into controls.\(^{96}\) It took twenty-five years and a number of citizen suits to compel the states even to begin their part of the process by listing impaired waters within their jurisdiction. The conclusion is inescapable that the states were proponents of water quality standards implementation until they actually had to implement them.

The rather scant legislative history in 1972 of the state’s support of water quality standards is sufficient to demonstrate that the states feared the prospect of “federal land use” and fought to

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\(^{96}\) See generally Houck, supra note 1.
retain control over land use by maintaining control over supervision of nonpoint source pollution. The fallacy that nonpoint source pollution is more difficult to control is invoked to perpetuate the axiom that land use cannot or should not be determined at the federal level. Land use is determined at the federal level, in a number of ways in a number of federal programs.\textsuperscript{97} Acknowledgment of this development by its opponents, however, would remove one of their most potent weapons in the political rhetoric of state versus federal responsibilities. "No federal land use" is more compelling argumentatively than "not much more federal land use."

Unfortunately these reluctant state stewards have found a new ally in their resistance—the Bush administration. The withdrawal of the Clinton administration's regulatory program and the Bush administration's confident and erroneous assertion that it would take only 180 days to revise and re-issure it, did not bode well for the substance of the program. We have had thirty years of proof that voluntary programs for control of nonpoint source pollution do not work. There is no legal or practical reason why a nationwide program of mandatory controls on nonpoint source pollution could not and should not be implemented. Imposing some degree of mandatory controls, by assessing nonpoint sources' share of the load allocation and requiring some minimal level of control on those sources only for impaired waters, is a reasonable, moderate step in water quality improvement—not a radical, unfounded leap.

It is a fairly safe assumption that two critical aspects of the regulatory program, inclusion of nonpoint sources and deadlines for implementation, will be weakened or essentially obliterated in revision of the regulations. EPA was on solid legal ground when it included nonpoint source pollution in the program's ambit and particularly so if Chevron retains its vigor; and ten additional years to implement a program on the books for thirty years seems fairly reasonable, especially if it is accepted that the difficulty of controlling nonpoint source pollution is a myth. Noticeably absent from the political rhetoric is the argument that control of nonpoint source pollution is unnecessary to improve impaired water quality. The pivotal nature of nonpoint source regulation to water quality is a truth that is conveniently overlooked. That it cannot

\textsuperscript{97.} See generally Linda A. Malone, Environmental Regulation of Land Use (2002).
be adequately controlled in voluntary programs without any deadlines for implementation has been proven over a period of thirty years to be a myth.

Working Forward from the Truth—the Challenge for Local Governments

Many of the states’ criticisms and objections to the TMDL program are problems created by the underlying program for state designation of uses and criteria for water quality standards. As the 2002 GAO report concluded, listing of impaired waters is impeded by the wide variances in state definitions of uses and the data utilized to evaluate impairment.98 This problem is not an issue of scientific uncertainty but rather a lack of consensus, which could be at least partially remedied through utilization of the guidance EPA recently provided.

By 1997, all but three states had submitted some kind of listing to EPA. The states’ more vehement objections to listing and claims of over-inclusiveness coincided with the prospect that EPA might actually require implementation of TMDLs with respect to these waters, and for nonpoint source pollution, by a specified deadline. Section 303(d) is regretfully silent on precisely how and when implementation of TMDLs should occur,99 but it is certainly not the first time that EPA has filled in a resounding statutory silence within the confines of Chevron.

However effective state resistance to meaningful implementation and enforcement of the TMDL program might be in the short term (which may be in fact ten years or more at the current pace), their resistance seems very short sighted. Allowing states to maintain the initiative in achieving water quality standards is appearing more and more to be a faulty proposition. Having touted themselves as not only the best but the only governmental authorities to determine water use and ultimately achieve it, states’ inability or unwillingness to carry through on actual implementation has broader, negative implications for the states’ cooperative authority to regulate the environment and purportedly exclusive authority to regulate land use. Legal challenges to EPA’s authority to regulate nonpoint sources under the TMDL program begs the question of why state and local governments have not redressed impaired water quality. There has never been

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98. See generally General Accounting Office, supra note 87.
any question that states have the legal authority to regulate the environment unless preempted by federal regulation. Local governments have increasingly engaged in environmental regulation through land use measures. With state authority specifically preserved in the 1972 Act\textsuperscript{100} and local authority receiving increased recognition, challenges to EPA’s regulatory authority over nonpoint sources ultimately places the responsibility for impaired water quality squarely on state and local governments. It is a responsibility they once welcomed, and now more than ever cannot deny.

Additionally, delays in implementation of section 303(d) have highlighted the failings of “water zoning.” It may be that the underlying problem is not the TMDL program or even how the uses and criteria are set, but the water quality approach itself. Water quality standards were overshadowed by technological standards and benignly neglected. Now in the spotlight, the opportunity should be seized to assess what is not working in the approach itself. With citizen suits looming, and waters still impaired, a system determined to be ineffective could be replaced rather than repaired by Congress. Whatever would take its place—another layer of technological controls, expanded definitions of point sources, market-based allowances, incentives—states will have relinquished control over water quality to federal authorities, regardless of whether EPA chooses to regulate nonpoint source pollution with mandatory controls. The likelihood of expanded federal authority at the expense of state authority increases in relation to a public perception that the states cannot be trusted with environmental responsibilities because they are more directly and less transparently susceptible to political pressure from powerful lobbies such as agriculture, mining, logging, and construction.

The More Things Change. . .

In the intensity of their criticisms of the TMDL program, industry and the states fail to recognize that they stand to lose more than they gain in eviscerating the program. If nonpoint source pollution is responsible for water quality impairment, some level of government must be responsible for effectively controlling nonpoint source pollution. The myths they seek to perpetuate of the difficulty of controlling these sources and the unacceptability of federal land use in order to maintain their control of regulation

\textsuperscript{100} See 33 U.S.C. § 1370 (2000).
do not get either group “off the hook” of improving water quality—quite the contrary. Industry may find itself to be a house divided between point source dischargers tired of bearing the brunt of regulation and nonpoint source dischargers seeking to evade regulation altogether. Demands for more federal funding, a familiar refrain, are far less compelling after thirty years of the “carrot” approach and no budget surplus.

The most recent testament to the agricultural lobby’s influence at the federal level is the 2002 Farm Bill. Despite a Republican administration, which is a proclaimed opponent to big government and liberal federal spending, and an attempt in the prior farm bill to begin eliminating massive federal subsidies, the newest farm bill is a six-year, $73.5 billion funding frenzy. In addition to farming and livestock subsidies, the bill quadrupled the prior budget for conservation programs. The “conservation” characterization of some of these conservation programs is at best questionable. Conservation measures may include the construction of waste lagoons by large livestock producers; a transparent opportunity to finance whatever CAFO requirements may have to be met.

There are signs, however, that agriculture’s political grip at the state level may be slipping as other constituencies exercise their political muscle. In California two environmental groups have filed suit to compel the Central Valley Regional Water Quality Control Board to repeal a twenty-year-old exemption for farmers from pollution discharge permit requirements which allows nonpoint source runoff from agricultural drainage return flows and storm water discharges to go unmonitored. Increasingly, agricultural regulators are finding themselves compelled to respond with new measures of control. For example, health concerns prompted the Oklahoma Agriculture Board to approve emerging rules defining where poultry houses may be located and where refuse may be applied to the land. Poultry operators are

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102. Id.
also required to register with the board prior to large-scale expansions. The rules were requested by the Republican state governor. Citizen suits are becoming even more inventive in compelling action. Recently a Maryland district court held that EPA had violated the Endangered Species Act (ESA) by failing to consult other federal agencies before taking action on water quality standard revisions and impaired water body beds. There is even one small ray of light from the otherwise bleak perspective of EPA's willingness to compel the states to exercise more effective controls on nonpoint pollution. Robert Wayland, director of the EPA Office of Wetlands Oceans, and Watersheds, warned the Association of State and Interstate Water Pollution Control Administrators that OMB is moving toward "performance-based budgeting." Although this is not a new approach at the OMB, it would be a revolutionary notion for nonpoint source programs. He said that section 319 had been given a "yellow light" (out of a possible green, yellow, or red) by budget officials and that he wanted to "issue a word of caution for all of us to make sure the effectiveness of the program is maintained and enhanced." A recent draft report by EPA has indicated that the Clean Water Act's state revolving loan fund is increasingly going to control nonpoint source pollution (as opposed to wastewater treatment plants in the past), as well as best management practices for storm water control and runoff from construction and agriculture; wetland, habitat and riparian corridor protection and restoration efforts; brownfields remediation; and source water protection. With nonpoint source pollution, everyone but the polluter pays.

Despite this word of caution concerning OMB to the states, EPA seems determined to persist in the same approach that has been so ineffective in the past, but with a new name. EPA wants to "revitalize" the "continuing planning process" (CPP) of section 303(e). The CPP does little more than consolidate the Clean Water Act water quality requirements found in other sections into one plan. The TMDL program would be integrated into this plan-

107. Id. at § 35:17-5-3.
108. Mahoney, supra note 105, at 502-03.
111. States, EPA Need to Ensure Effectiveness of Nonpoint Source Program, Official Says, 33 Env't Rep (BNA). 590 (Mar. 15, 2002).
112. Id.
ning process, with its own new name—the watershed rule. The CPP would be reviewed every five years to calculate the performance of states in implementing its contents. The agency is considering a structure for the “watershed” program that would not require allocations be made to individual sources.\textsuperscript{114} The only good news with respect to nonpoint pollution is that pollutant allocations would include nonpoint sources. This basic issue itself has been at the least reconsidered by the agency. States would not have to have implementation plans—but only provide “reasonable assurance” their plans would bring waters into attainment at some unspecified time. States responded to this announcement saying that they have done “a lot of planning and measuring” already.\textsuperscript{115}

Withdrawal of the 2000 regulation, absent a new TMDL rule, leaves in place the 1992 regulation. The 2000 regulation included more requirements than the 1992 regulation—specifically including schedules for development of TMDLs and more provisions addressing nonpoint source pollution. After its withdrawal, the battle shifted to EPA’s draft version of the “Watershed Rule.” This draft rule, widely supported by agriculture, industry, states, and municipalities, as well as apparently the USDA, would replace the 1992 regulation if adopted.\textsuperscript{116} The Watershed Rule would set specific load limits for point sources, but make only a “gross allocation” of pollutants to nonpoint source dischargers. States would divide the allocation among nonpoint discharges as part of the implementation process, and most likely not subject to EPA’s approval or disapproval, or enforcement by EPA. Organizations supporting the draft rule met with OMB on March 12, 2003, to figure out why the draft rule had not been proposed. One OMB official at the meeting was reported as saying OMB officials just “needed to get to work” after learning of the constituencies’ support for the draft rule. EPA officials did not attend the meeting and indicated the draft was being held up in EPA by negotiations over how nonpoint sources should be addressed.\textsuperscript{117} On March 14, many of these same organizations met with the chairman of the White House Council on Environmental Quality, and came out of

\textsuperscript{115} Id.
that meeting stating that the interagency review of the rule would be done by mid-May. Both CEQ and EPA denied such a schedule existed. As one unidentified “agency official” reportedly said, however, the “informal discussions are often more important than the formal review that is more public.”

On May 15, 2002, EPA issued for comment its proposed trading policy for impaired and unimpaired waters using water quality standards as a baseline. The policy is devised as a tool in implementation of the forthcoming TMDL rule. Under the policy if a source reduces its pollutant loading below the amount allocated in its permit, it would have a credit that could be traded to another source on that waterbody. One example given is that a farmer could create credits by changing cropping practices, which a wastewater treatment plant could then acquire to meet water quality limits. The policy, as with any trading policy, raises questions about the clarity of permit requirements and the extent to which trading within a waterbody ignores the more localized impact of pollutant discharges. Ironically, the policy is focused on trading for nutrients (generally phosphorous and nitrogen) and sediments. In other words, the policy is focused on giving point source dischargers the dubious pleasure of paying nonpoint source polluters to comply with water quality standards. Point source dischargers may certainly prefer trading to the rigidity of further restrictions on their own discharges, but how long will it be before point source dischargers, particularly publicly owned treatment works (POTWs), insist that large, profitable, nonpoint source industry dischargers pay for their own pollution?

Dan Tarlock has thoughtfully demonstrated the downward devolution of environmental protection in general and more specifically in watershed protection. At the federal level the problem in implementing controls on nonpoint source pollution goes beyond the usual, relatively benign neglect of political gridlock to

118. Bruninga, supra note 116, at 705.
120. Id.
122. See Houck, supra note 10, at 10,399-400.
123. 67 Fed. Reg. at 34,709.
a virtual stranglehold on implementation by agriculture, mining and logging political interests.125

Unfortunately, the Supreme Court is sending mixed messages to local governments with respect to environmental protection. While the Lopez v. United States126 and United States v. Morrison127 commerce clause approach reaffirms that land use restrictions are the province of local governments, Taking Clause jurisprudence,128 at the very least, discourages all but the most financially advantaged local governments from engaging in innovation or nontraditional controls. Local governments by their very nature have limited jurisdiction—how does a locality protect its water supply when the water supply is in another locality or is threatened by water appropriation in or outside its jurisdiction?

The TMDL “buck” has been passed back and forth for years between the state and federal level, but now the buck stops here—at the local level. Whatever the precise formulation of the Bush administration’s TMDL program, committed control of nonpoint source pollution for the foreseeable future will have to come from the local level despite the ever present threat of Takings Clause litigation. Preemption problems also loom if state laws protecting agriculture are broadly interpreted.129 Localities do have the incentive that they and their constituencies suffer directly from impairment of water quality. Hopefully they will be less susceptible to the political influence of large-scale dischargers, or more receptive to citizens’ complaints about water quality. They may find support for their efforts in the renewed initiative for watershed planning, federal court decisions and litigation demanding more controls on nonpoint source pollution, and perhaps from a newly emerging political coalition of municipalities, industrial point source dischargers, and taxpayers tired of paying for the pollution of nonpoint source dischargers. Inter-local coalitions also hold some promise of coordinated political energy and power in watershed planning, particularly in ensuring that the money Congress

125. Id.
keeps throwing at the problem reaches the local level. Responsibility for water quality entails accountability for past failures and future improvement. If the states and nonpoint source dischargers want to maintain control over land use practices which contribute most significantly to nonpoint source pollution, at some point they owe the public some answers as to why they have failed so far in that responsibility, where the money has gone, and how that will change. Until then, local governments will be the stewards of our water quality. If they do not or cannot step up to this task, there is one more certain truth—the water quality of our impaired waters will not improve.