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Limits of *American Farm Bureau Federation v. EPA* and the Clean Water Act's TMDL Provision in the Mississippi River Basin

K.A. McConnell*

Under the Clean Water Act, a troubling regulatory gap exists wherein the federal government is unable to directly regulate diffuse sources of water pollution in interstate waters. This gap has left many of the nation's most important watersheds flooded with nutrient pollution from agricultural runoff, contrary to the purpose of the statute. Working cooperatively with state and local jurisdictions, the Environmental Protection Agency was able to bridge this regulatory gap and develop a first-of-its-kind, federal pollution reduction scheme to protect the Chesapeake Bay from the nutrient pollution plaguing its treasured waters.

This Note discusses the American Farm Bureau Federation v. EPA decision upholding that plan, and examines the careful line the federal government must toe in order to respect the boundaries of federalism, while also carrying out its statutory mandate to restore and maintain the integrity of the nation's waters. Using the Mississippi River Basin as a case study, this Note highlights the limits of the EPA's federal pollution reduction strategy and the limited value of American Farm Bureau as precedent to protect other large interstate bodies of water. This Note concludes that a similar federal plan in the Mississippi River Basin is unlikely, given that the regulatory gap persists, as it always has, wherever states are unwilling to cooperate.

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INTRODUCTION

In a unanimous decision in *American Farm Bureau Federation v. EPA*, the Third Circuit affirmed the legality of the Environmental Protection Agency's (EPA) strategy for addressing water pollution in the Chesapeake Bay.¹ The court held that the Clean Water Act's (CWA) provision requiring that the states or the EPA set pollution limits in impaired bodies of water was ambiguous, and that the EPA had discretion to implement a scheme to address diffuse sources of water pollution in one of the nation's most economically important interstate bodies of water.² With the EPA stepping beyond its usual boundaries to create a first-of-its-kind, multistate pollution diet, many states and agricultural interests worry *American Farm Bureau* sets the stage for an increased federal role in cleaning up another impaired body of water—the Mississippi River Basin. The Mississippi River Basin is the nation's largest watershed, and, much like the Chesapeake Bay, it suffers from significant water pollution from agricultural runoff.

However, *American Farm Bureau* is neither the precedent-setting case environmentalists hope for nor the one states and agriculturalists fear. Key differences between the two watersheds highlight a regulatory gap in the CWA's protection of large interstate bodies of water and expose the

1. *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281, 286–87 (3d Cir. 2015), *cert. denied*, 136 S. Ct. 1246 (2016).

2. *Id.* at 309–10.

Chesapeake Bay pollution diet for what it is—an impressive feat of calculated, cooperative federalism with limited applicability.

Part I of this Note provides a brief overview of water quality regulation in the United States, focusing specifically on the lack of federal regulation of diffuse sources of pollution in the interstate water context. Part II describes the innovative techniques the EPA and states used to bridge this regulatory gap in order to create a meaningful pollution reduction plan in the Chesapeake Bay. Part III describes *American Farm Bureau*, the case upholding the EPA's multistate pollution-reduction scheme, and highlights some of the vulnerabilities in the Third Circuit's legal reasoning. This Part also describes Jamison Colburn's Chesapeake Bay model of intergovernmental administration, which characterizes the interplay between the EPA and Chesapeake Bay states as the ideal balance between collaboration and coercion under the CWA's cooperative federalism framework. Lastly, Part IV highlights the limited applicability of both the Chesapeake Bay model and the *American Farm Bureau* decision to other contexts by analyzing the practicality of employing the Chesapeake Bay model in the Mississippi River Basin.

I. BACKGROUND

A. *Regulating Interstate Bodies of Water*

“Large-scale pollution of air and waterways is no respecter of political boundaries, and its effects extend far beyond those who cause it.”³ In a 1965 special message to Congress, President Lyndon B. Johnson urged lawmakers to enact legislation to strengthen the federal government's enforcement authority to better control interstate water pollution at its source.⁴ President Johnson's message highlighted one of the major justifications for federal involvement in water quality protection—the existence of interstate externalities.⁵ The problem of interstate externalities arises when states obtain the labor and fiscal benefits of pollution-generating economic activities but do not suffer the full costs of the activities when their pollution spills into shared, interstate bodies of water.⁶ Economic theory suggests that such conditions lead to an undesirable amount of pollution crossing state lines, unfairly leaving downstream states to bear the costs of upstream states' polluting activities.⁷ Additionally, in the absence of federal regulation, states may implement lax environmental standards in an

3. President Lyndon B. Johnson, Special Message to the Congress on Conservation and Restoration of Natural Beauty (Feb. 8, 1965).

4. See *id.* In the same address, however, President Johnson acknowledged the vital role state and local governments must play if the nation is to have any hope of achieving its water quality goals. See *id.*

5. See *id.*

6. See generally Richard L. Revesz, *Federalism and Interstate Environmental Externalities*, 144 U. PA. L. REV. 2341 (1996) (discussing the role of interstate externalities in the Clean Air Act context).

7. See *id.* at 2343.

effort to attract more business activity, as geographically mobile companies would naturally flock to the state with the lowest environmental compliance costs. This would result in a “race to the bottom” among states and leave the nation’s waters susceptible to unacceptable levels of pollution.⁸

B. *The Clean Water Act*

To increase the federal government’s role in regulating water pollution, Congress enacted the CWA in 1972, and it remains the main regulatory structure for protecting water quality in the United States.⁹ Like most environmental statutes, the CWA is grounded in the Commerce Clause of the Constitution, which grants Congress the broad power to regulate activities that affect interstate commerce.¹⁰ The stated purpose of the statute is to “restore and maintain the . . . integrity of the Nation’s waters.”¹¹ In order to achieve its goal, the CWA employs a cooperative federalism framework wherein the responsibility of safeguarding the health of the nation’s waterways is shared between the states and the federal government.¹² Given the nation’s size and geographic diversity, the federal government’s limited implementation and enforcement resources, and the close interrelation between water pollution controls and local land-use decisions, the federal government relies heavily upon state and local authorities to carry out the mandates of the CWA. The federal government then maintains the responsibility of minimizing interstate externalities—ensuring the cost of restoring and maintaining the integrity of the nation’s waters does not fall unfairly on downstream states.¹³

Various provisions of the CWA and extensive EPA regulations define the respective roles of the states and the federal government in regulating water quality in the United States. States are responsible for implementing water quality standards, which are narrative or numeric criteria that set the maximum contamination a water body can receive while still protecting its designated

8. Neal D. Woods, *Interstate Competition and Environmental Regulation: A Test of the Race-to-the-Bottom Thesis*, 87 SOC. SCI. Q. 174, 174 (2006) (discussing the economic theory of race to the bottom and its likely applicability in the context of environmental regulation of interstate pollution).

9. 33 U.S.C. §§ 1251–1387 (2012).

10. U.S. CONST. art. I, § 8, cl. 3; JAY E. AUSTIN & D. BRUCE MYERS, JR., *AM. CONSTITUTIONAL SOC’Y, ANCHORING THE CLEAN WATER ACT: CONGRESS’S CONSTITUTIONAL SOURCES OF POWER TO PROTECT THE NATION’S WATERS* 2 (2007).

11. § 1251(a).

12. See § 1251(b) (“It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use . . . of land and water resources, and to consult with the Administrator in the exercise of his authority under this chapter.”); see also § 1251(g) (“Federal agencies shall co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.”).

13. See *Rapanos v. United States*, 547 U.S. 715, 777 (2006) (Kennedy, J., concurring in judgment) (“[T]he [Clean Water] Act protects downstream States from out-of-state pollution that they cannot themselves regulate.”).

use.¹⁴ The EPA and the states then share responsibility to ensure that pollutants discharged into bodies of water do not violate established water quality standards. The EPA holds the primary authority to regulate any discernable, confined, and discrete conveyance that may discharge a pollutant, known as a point source.¹⁵ The EPA establishes “effluent limitations” for these sources and requires point source polluters to obtain National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants into a body of water.¹⁶

States, on the other hand, retain the primary authority to regulate more diffuse sources of water pollution, known as nonpoint sources.¹⁷ Recognizing that effluent limitations may not sufficiently protect all bodies of water, Congress enacted section 1313(d), which requires states to submit to the EPA a list of all segments of a body of water in which effluent limitations alone are not enough to meet applicable water quality standards.¹⁸ Once identified, the states must establish the “total maximum daily load” (TMDL) of a pollutant in that segment of water, which must meet “a level necessary to implement the applicable water quality standards.”¹⁹ According to the EPA’s regulations, TMDL is defined as the sum of wasteload allocations and load allocations,²⁰ where wasteload allocations refer to pollutant loads from point sources, and load allocations refer to pollutant loads from nonpoint and natural background sources.²¹ Once a state submits its TMDL for review, the EPA can then either approve or disapprove of the state’s identification and load levels.²² If the EPA deems the TMDL inadequate, the EPA must promulgate its own TMDL for the state.²³

14. § 1313(a); 40 C.F.R. § 131.11 (2016). In the event a state fails to submit adequate water quality standards to the EPA for approval, the CWA mandates the EPA to promulgate its own. 33 U.S.C. § 1313(b).

15. See 33 U.S.C. §§ 1311(b)(1)(A), 1317(a). Point sources include “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.” § 1362(14). The statute specifically notes the term does not include “agricultural stormwater discharges and return flows from irrigated agriculture.” *Id.*

16. See §§ 1311(b)(1)(A), 1342.

17. See, e.g., § 1329(b) (detailing state nonpoint source management programs); see also § 1313 (discussing state implementation plans but not defining nonpoint source). The term “nonpoint source” is defined as any source of water pollution that does not meet the legal definition of “point source.” *What is Nonpoint Source?*, EPA, <https://www.epa.gov/polluted-runoff-nonpoint-source-pollution/what-nonpoint-source> (last visited May 18, 2017). Examples of nonpoint source pollution include excess fertilizer and insecticides from agricultural lands and residential areas, urban runoff, sediment from crop and forest lands, and bacteria and nutrients from livestock production. *Id.*

18. § 1313(d).

19. § 1313(d)(1)(C).

20. 40 C.F.R. § 130.2(i) (2016).

21. § 130.2(g)–(h). Natural background sources and nonpoint sources should be distinguished in the TMDL wherever possible. § 130.2(g).

22. 33 U.S.C. § 1313(d)(2).

23. *Id.*

Once a TMDL is approved, the state must incorporate the load requirements into its “continuing planning process.”²⁴ The “continuing planning process” document described in section 1313(e) is meant to serve as a detailed roadmap for how and when a jurisdiction plans to meet its pollutant allocations.²⁵ The continuing planning process is what “gives some operational force” to the TMDL information-gathering provision.²⁶ If a state fails to adequately incorporate its TMDLs into its continuing planning process, the federal government’s only recourse is to withhold implementation funding.²⁷

C. *The History of the TMDL Provision*

While the EPA’s NPDES permit program achieved significant reductions in pollution from point sources, efforts to mitigate nonpoint source pollution through the state-initiated TMDL process were much less successful.²⁸ Both the states and the EPA failed to establish TMDLs, which ultimately led to a flurry of citizen suits in the 1980s and 1990s targeting both the EPA and the states for their failure to implement the CWA’s TMDL framework.²⁹ From these cases emerged the consensus that a state’s failure to submit a TMDL

24. § 1313(e)(2); *see also* § 1313(d)(2) (noting a state must implement an EPA-created TMDL into its continuing planning process if the EPA disapproves of a state’s TMDL).

25. § 1313(d)(2), (e)(2); *Am. Farm Bureau Fed’n v. EPA*, 792 F.3d 281, 303 (3d Cir. 2015). Unlike section 1313(d), there is no provision granting the EPA authority to promulgate its own continuing planning process in the event that the EPA’s disapproves of a state’s plan. *Compare* § 1313(d)(2), *with* § 1313(e)(2).

26. *Pronsolino v. Nastri*, 291 F.3d 1123, 1128 (9th Cir. 2002); *see* § 1313(e)(3)(A)–(H) (describing the elements required for approval of a continuing planning process, including incorporation of TMDLs, scheduling of compliance, and adequate authority for intergovernmental cooperation).

27. Federal funding for implementation of state continuing planning process schemes actually stems from another provision in the CWA, section 1329, which governs nonpoint source management programs. § 1329; *see Pronsolino*, 291 F.3d at 1128–29. Section 1329 nonpoint source management programs are intended to work in conjunction with the section 1313(d) TMDL program to achieve water quality standards and manage nonpoint source pollution. Under section 1329, states are to identify categories and subcategories of nonpoint sources, or even particular nonpoint sources where appropriate, that contribute to a water segment not meeting its water quality standards. § 1329(b). States are to describe the process for identifying best management practices to control the various categories of nonpoint source pollution and to reduce said pollution to the “maximum extent practicable.” § 1329(a)(1)(C). If the EPA approves a state’s report, the EPA gives the state a grant to implement its management program. § 1329(h).

28. *See* EPA, PROTECTING THE NATION’S WATERS THROUGH EFFECTIVE NPDES PERMITS: A STRATEGIC PLAN 1, 7–8 (2001), <https://www3.epa.gov/npdes/pubs/strategicplan.pdf>. Nonpoint source pollution remains the leading cause of water quality problems in the United States. *What is Nonpoint Source?*, *supra* note 17. In a Government Accountability Office survey, state officials knowledgeable about TMDLs reported that 83 percent of TMDLs have achieved their targets for point source pollution through permits, but only 20 percent achieved their targets for nonpoint source pollution. U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-14-80, CLEAN WATER ACT: CHANGES NEEDED IF KEY EPA PROGRAM IS TO HELP FULFILL THE NATION’S WATER QUALITY GOALS 35 (2013) [hereinafter GAO REPORT].

29. *See, e.g., Kingman Park Civic Ass’n v. EPA*, 84 F. Supp. 2d 1, 5 (D.D.C. 2000) (establishing the “constructive submission” theory); *Sierra Club v. Hankinson*, 939 F. Supp. 865, 867 (N.D. Ga. 1996) (holding that the EPA’s failure to approve Georgia’s TMDL or promulgate its own violated the CWA); *Idaho Sportsmen’s Coal. v. Browner*, 951 F. Supp. 962, 966–67 (W.D. Wash. 1996) (holding that the EPA’s proposed schedule for Idaho violated the CWA by being too slow and substantively inadequate).

should be viewed as a “constructive submission” that no TMDL is needed, triggering the EPA’s duty to either accept that conclusion or promulgate its own TMDL.³⁰

Feeling significant pressure from the courts to implement the TMDL framework in the face of states’ unwillingness to draft TMDLs, the EPA began to develop comprehensive new regulations for the TMDL program.³¹ The new rule sought to require what had long been recommended in the EPA’s 1991 TMDL guidance document.³² The revisions would transform the often-ignored “informational tool” into a workable, meaningful water quality standard attainment plan.³³ In 2000, the EPA announced its final revised TMDL rule, which required a TMDL document to include detailed plans to implement the TMDL with load allocations tied to actual nonpoint sources, “reasonable assurances” the load reductions predicted could actually be achieved, and timelines to achieve them.³⁴

In response, the American Farm Bureau Federation, along with a number of special interests groups, immediately filed a suit challenging the 2000 TMDL rule.³⁵ With agricultural runoff considered a leading source of nonpoint source pollution in the United States,³⁶ the Farm Bureau worried about the rule’s call for mandatory control on nonpoint source pollution and the impact of such regulation on the agricultural industry.³⁷ The Farm Bureau’s lobbying efforts persuaded Congress to pass an appropriations bill completely defunding the implementation of the rule for the 2000–2001 fiscal year.³⁸ In March 2003, the EPA under the Bush Administration quietly withdrew the 2000 TMDL rule

30. See *Kingman*, 84 F. Supp. 2d at 5.

31. Oliver A. Houck, *The Clean Water Act Returns (Again): Part I, TMDLs and the Chesapeake Bay*, 41 *Envtl. L. Rep. (Envtl. Law Inst.)* 10,208, 10,210 (2011).

32. Jamison E. Colburn, *Coercing Collaboration: The Chesapeake Bay Experience*, 40 *WM. & MARY ENVTL. L. & POL’Y REV.* 677, 695 (2016); EPA, *GUIDANCE FOR WATER QUALITY-BASED DECISIONS: THE TMDL PROCESS* 15 (1991).

33. See *Pronsolino v. Nastri*, 291 F.3d 1123, 1129 (9th Cir. 2002) (“TMDLs are primarily informational tools that allow the states to proceed from the identification of waters requiring additional planning to the required plans.”); see also *Proposed Revisions to the Water Quality Planning and Management Regulation*, 64 *Fed. Reg.* 46,012 (Aug. 23, 1999) (“The goal of establishing TMDLs is to assure that water quality standards are attained and maintained.”).

34. See *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, 43,591–92 (July 13, 2000) [hereinafter 2000 TMDL Rule]. According to the rule, a “reasonable assurance provides the basis by which a State . . . can demonstrate that the load allocations in the TMDL are likely to occur.” *Id.* at 43,595.

35. Linda A. Malone, *The Myths and Truths that Ended the 2000 TMDL Program*, 20 *PACE ENVTL. L. REV.* 63, 66–67 (2002).

36. *Nonpoint Source: Agriculture*, EPA, <https://www.epa.gov/nps/nonpoint-source-agriculture> (last visited May 19, 2017).

37. Malone, *supra* note 35.

38. *Id.* at 67; see also *Military Construction Appropriations Act*, Pub. L. No. 106-246, 114 Stat. 511 (2000) (defunding the implementation of the 2000 TMDL rule).

altogether, leaving the extant TMDL regulations in its place.³⁹ However, EPA regional leadership in some areas continued to demand that states' TMDL documents include many of the requirements from the 2000 TMDL rule, whereas other regions required only that states include the minimum TMDL requirements.⁴⁰ As a result, some state TMDLs specify how and by whom load reductions will be met, while others are silent on implementation.⁴¹ Ultimately, however, a 2013 Government Accountability Office review of the matter clarified that, under EPA's existing regulations, the "how" and "by whom" of TMDL implementation is not required in a TMDL document.⁴²

D. The Regulatory Gap

Many regarded the TMDL provision as a positive "first step" toward controlling nonpoint source pollution.⁴³ With little evidence of its effectiveness,⁴⁴ however, significant skepticism exists as to whether the TMDL program is at all useful in trying to address America's nonpoint source pollution problem.⁴⁵ At their heart, TMDLs are merely "informational tools," with limited ability to spur state action.⁴⁶ Even if the features of the 2000 TMDL rule had survived, TMDLs would remain a flawed planning mechanism

39. See Withdrawal of Revisions to the Water Quality Planning and Management Regulation, 68 Fed. Reg. 13,608, 13,609 (Mar. 19, 2003); see also 40 C.F.R. § 130.2 (2016).

40. Colburn, *supra* note 32, at 696.

41. GAO REPORT, *supra* note 28, at 39–44.

42. *Id.* at 36. A GAO report serves as an informational tool for Congress to assess the effectiveness of government programs. The Senate Committee on Environment and Public Works asked the GAO to examine the TMDL program, looking specifically at (1) the EPA's and states' responsibilities in developing and implementing TMDLs, (2) the status of long-established TMDLs, (3) the extent to which long-established TMDLs contain key features that enable attainment of water quality standards, and (4) the extent to which those TMDLs exhibit factors that facilitate effective implementation. *Id.* at 5.

43. *Pronsolino v. Marcus*, 91 F. Supp. 2d 1337, 1355 (N.D. Cal. 2000), *aff'd sub nom.* *Pronsolino v. Natri*, 291 F.3d 1123 (9th Cir. 2002); see also GAO REPORT, *supra* note 28, at 62 (explaining that Congress indicated the CWA's voluntary incentive-based nonpoint source management provisions were a "starting point" and were "subject to change if the reliance on voluntary participation did not significantly improve water quality").

44. See GAO REPORT, *supra* note 28, at 27 ("[R]esults from [the Government Accountability Office's] survey of state TMDL coordinators show that states have little information on TMDL implementation, and, where information exists, few water bodies to which long-established TMDLs apply have attained water quality standards.").

45. See *id.* at 62–63 ("The [CWA's] approach for abating nonpoint source pollution . . . has not shown much progress toward achieving the goals of the act and likely will not do so in the foreseeable future."). To ensure TMDLs are actually effective in reducing nonpoint source pollution, the Government Accountability Office recommends that Congress consider revising the CWA's voluntary approach to restoring impaired waters. Specifically, it recommends Congress consider ways to address the federal government's limited authority in this arena, as it "currently impede[s] attainment of water quality standards." *Id.* at 65. Despite their weaknesses, Professor Oliver H. Houck believes TMDLs are "worth the effort" and that they "hold the best prospect of those now available for coming to grips with the last major, unregulated sources of water pollution in this country." Oliver A. Houck, *TMDLs IV: The Final Frontier*, 29 *Env'tl. L. Rep.* (Env'tl. Law Inst.) 10,469, 10,485–86 (1999).

46. *Pronsolino*, 291 F.3d at 1129.

to address nonpoint source pollution. The TMDL statute does little to ensure states produce coordinated plans capable of improving and protecting water quality throughout the entirety of shared, interstate bodies of water. The EPA's 1991 TMDL Guidance envisioned a "watershed planning" program, but such an approach is not reflected in either the statute or the EPA's regulations.⁴⁷ Under the TMDL provision and its current regulations, no role exists for the federal government to coordinate states' TMDLs to ensure upstream states' nonpoint source pollution does not burden downstream states' efforts to meet their water quality standards. The system is fragmented, with each state submitting its own TMDLs in isolation from the plans of surrounding states sharing the same body of water.⁴⁸

Without direct authority to regulate nonpoint source pollution, the EPA's only recourse to protect downstream states is to ensure upstream NPDES permits are strict enough to meet downstream water quality standards.⁴⁹ For example, if an upstream state's pollution is causing a violation of a downstream state's water quality standards, EPA has the authority to deny point source polluters permits to discharge until downstream water quality standards are met.

Therefore, the TMDL program—designed to address nonpoint source pollution—is inherently flawed, as it leaves the federal government no way to hold a state's nonpoint source polluters accountable for their respective contribution to an interstate water's water quality violations.⁵⁰ The program relies on the states to hold their nonpoint source polluters accountable, which they have little political incentive to do.⁵¹ Potential consequences for inadequate state action include (1) the EPA promulgating its own TMDLs for the state, (2) withholding nonpoint source management plan funding if states do not attempt to implement the EPA's TMDLs, and (3) federally-initiated

47. Houck, *supra* note 45, at 10,473–74 (indicating that the "watershed planning" . . . magic bullet that would translate abatement measures from paper to practice . . . never materialized.") (citations omitted); Oliver A. Houck, *TMDLs, Are We There Yet?: The Long Road Toward Water Quality-Based Regulation Under the Clean Water Act*, 27 *Env'tl. L. Rep. (Env'tl Law Inst.)* 10,391, 10,397 (1997) (indicating EPA's continued reference to "watershed approaches," but highlighting that many of the key aspects of TMDL implementation remained unresolved).

48. See 33 U.S.C. § 1313(d) (2012).

49. See *Arkansas v. Oklahoma*, 503 U.S. 91, 100 (1992) (stating that the EPA Administrator retains the authority to block the issuance of an NPDES permit if it concludes that the discharges will lead to a violation of a downstream state's water quality standards); see also 40 C.F.R. § 122.4(d) (2016) ("No permit may be issued . . . [w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States.").

50. See NAT'L RESEARCH COUNCIL OF THE NAT'L ACADS., *MISSISSIPPI RIVER WATER QUALITY AND THE CLEAN WATER ACT: PROGRESS, CHALLENGES, AND OPPORTUNITIES* 6 (2008) ("The TMDL framework is more easily implemented in smaller watersheds within individual states. Larger rivers and rivers with watersheds that encompass multiple states pose significant implementation challenges for the TMDL framework. . . .").

51. Colburn, *supra* note 32, at 705 ("Without credible commitments from each of its peers that strict limits on agriculture and municipalities would finally be imposed, no partner ha[s] enough incentive to burden its own powerful stakeholders.").

restrictions on guiltless point source polluters.⁵² None of these “penalties” punish nonpoint source polluters. Thus, a problematic regulatory gap exists in the CWA where the federal government is unable to regulate nonpoint source pollution in upstream states, even when it leads to water quality violations in downstream states.⁵³ This gap shifts the burden of reducing pollution from nonpoint source to point source polluters, leaving nonpoint source polluters, like the agricultural industry, largely unaccountable even though they contribute a significant portion of today’s water pollution.⁵⁴ Furthermore, such a gap leaves activities that negatively affect interstate commerce essentially unregulated and impedes the EPA’s ability to carry out the CWA’s mandate to restore and maintain the integrity of the nation’s waters.⁵⁵

II. CHESAPEAKE BAY TMDL

In 2000, the EPA set out to bridge the CWA’s regulatory gap in order to protect water quality in one of the nation’s most treasured interstate bodies of water, the Chesapeake Bay. The EPA’s 2010 Chesapeake TMDL is a first-of-its-kind, comprehensive pollution diet, including load limits allocated among specific point sources and nonpoint source sectors, deadlines, and “reasonable assurance” requirements.⁵⁶ The TMDL is reminiscent of the TMDLs envisioned by the creators of the 2000 TMDL rule but on a watershed-wide scale.⁵⁷ The Chesapeake Bay TMDL represents EPA’s attempt to craft a pollution reduction framework that holds nonpoint source polluters accountable within an interstate watershed.

The targeted struggle to “Save the Bay” dates back to the early 1980s.⁵⁸ The Chesapeake Bay is North America’s largest estuary, spanning 64,000 square miles and 6 states—Delaware, Maryland, New York, Pennsylvania,

52. 33 U.S.C. § 1313(d)(2), (e)(2); *see Arkansas*, 503 U.S. at 113–14 (holding that the EPA has the discretion to place restrictions on guiltless point source polluters, but courts cannot compel it to do so).

53. Such an effect is likely to be considered a burden on interstate commerce, meaning Congress has the constitutional authority to grant the EPA the power to remedy it. *See* John P. Dwyer, *The Commerce Clause and the Limits of Congressional Authority to Regulate the Environment*, 25 *Env'tl. L. Rep. News & Analysis* (Env'tl. Law. Inst.) 10,421, 10,429 (1995).

54. *See Nonpoint Source: Agriculture*, *supra* note 36.

55. GAO REPORT, *supra* note 28, at 65 (noting that the federal government’s “limited authority” currently “impede[s] attainment of water quality standards”).

56. *See* EPA, CHESAPEAKE BAY TOTAL MAXIMUM DAILY LOAD FOR NITROGEN, PHOSPHORUS AND SEDIMENT 7-1–7-2, 8-9–8-32, 10-1 (2010) [hereinafter CHESAPEAKE TMDL]. The “reasonable assurance” requirements refer to information in states’ TMDL documents that demonstrate the TMDL’s nonpoint source load allocations can and will be achieved. *Id.* at 7-1. In assessing whether a state has provided a reasonable assurance that its load allocations will be met, the EPA looks at whether practices capable of reducing the specified pollutant load exist; whether they are technically feasible at the level required to meet allocations; and whether they have a high likelihood of implementation. *Id.*

57. *See id.* at ES-1–ES-2.

58. *Our Mission*, CHESAPEAKE BAY FOUNDATION, <http://www.cbf.org/about-cbf/our-mission/> (last visited May 19, 2017); *see Developing the Chesapeake Bay TMDL*, EPA, <https://www.epa.gov/chesapeake-bay-tmdl/developing-chesapeake-bay-tmdl/> (last visited May 19, 2017).

Virginia, and West Virginia—in addition to the District of Columbia.⁵⁹ It is a historic channel of interstate commerce that supports over \$1 trillion in economic activity each year, “including fishing, shipping, farming, and tourism.”⁶⁰ As a result of decades of this activity, the watershed is plagued by water pollution resulting in “dead zones” that significantly diminish the health of the Bay’s aquatic ecosystem.⁶¹ One of the largest contributors to the Bay’s water pollution problem is the nitrogen, phosphorous, and sediment pollution from agricultural runoff.⁶² Efforts to address nutrient and sediment pollution in the Chesapeake Bay have been a decades-long struggle between the EPA, the Bay jurisdictions, and a number of agricultural interests groups.⁶³

Following the release of a study documenting significant nutrient pollution in the Chesapeake Bay, the governors of Maryland, Pennsylvania, and Virginia, as well as the mayor of the District of Columbia,⁶⁴ signed the Chesapeake Bay Agreement of 1983, pledging to work together to clean up the Bay.⁶⁵ In 1987, the states agreed to cut nitrogen and phosphorous loadings by 40 percent by 2000, and Congress supported the agreement by establishing the Chesapeake Bay Program.⁶⁶ The legislation directed the EPA to provide informational assistance and grant money to reach the states’ goal.⁶⁷ With the principal Bay jurisdictions and the EPA working cooperatively, the states were able to reduce nitrogen and phosphorous levels but did not meet their 2000 goal.⁶⁸ This prompted the principal Bay jurisdictions to sign the Chesapeake 2000 Agreement, which set the lofty goal of “remov[ing] the Bay and its tributaries from the list of impaired waters” by 2010.⁶⁹ The Agreement included a goal to

59. *The Chesapeake Bay Watershed*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/discover/baywatershed> (last visited May 19, 2017).

60. *Am. Farm Bureau Fed’n v. EPA*, 792 F.3d 281, 288, 305 (3d Cir. 2015).

61. *Id.* at 288.

62. *Agriculture*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/issues/issue/agriculture#inline> (last visited May 19, 2017). Nearly one-quarter of the land surrounding the Chesapeake Bay is devoted to agricultural production. *Id.*

63. *Am. Farm Bureau Fed’n*, 792 F.3d at 287.

64. Maryland, Pennsylvania, Virginia, and the District of Columbia will hereinafter be referred to as the principal Bay jurisdictions.

65. Houck, *supra* note 31, at 10,214.

66. *Id.*

67. *Id.*

68. *Id.*

69. *Id.* (citing Chesapeake 2000 Agreement between Commonwealth of Va., State of Md., Commonwealth of Pa., D.C., Chesapeake Bay Comm’n & the EPA 5 (June 28, 2000)). In 2000, Delaware and New York signed a memorandum of understanding pledging to work cooperatively with the original signatories of the Chesapeake Bay Agreement to meet its phosphorous and sediment reduction targets, and West Virginia signed on in 2002. See Memorandum of Understanding among the State of Del., D.C., the State of Md., the State of N.Y., the Commonwealth of Pa., the Commonwealth of Va., the State of W. Va. & the EPA Regarding Cooperative Efforts for the Protection of the Chesapeake Bay and Its Rivers (Oct. 2000), http://www.chesapeakebay.net/content/publications/cbp_12085.pdf.

work with local community interests to “develop and implement locally supported watershed management plans.”⁷⁰

At the same time, environmental groups were suing the EPA for failing to enforce the TMDL provision in both Virginia and the District of Columbia.⁷¹ The suits forced the EPA to work with Virginia and the District of Columbia to establish TMDLs for their waters over the next ten years.⁷² While all seven of the Bay jurisdictions were involved in the Chesapeake Bay Agreement’s TMDL program by 2002, each one was addressing its slice of the problem in isolation.⁷³

Congress amended the original Chesapeake Bay Program legislation in November 2000, declaring the Bay “a national treasure and a resource of worldwide significance.”⁷⁴ The amendment directed the EPA “in coordination” with the states to “ensure that management plans are developed and implementation is begun” to meet the Chesapeake Bay Agreement’s nutrient and phosphorous goals.⁷⁵ In 2007, the seven Bay jurisdictions requested the EPA establish the multistate Chesapeake Bay TMDL to address nitrogen, phosphorous, and sediment pollution.⁷⁶ Then, in May 2009, President Barack Obama issued Executive Order 13508, stressing that the Bay is home to “nationally significant assets” in the form of public lands, military installations,

70. Chesapeake 2000 Agreement between Commonwealth of Va., State of Md., Commonwealth of Pa., D.C., Chesapeake Bay Comm’n & the EPA 4 (June 28, 2000), http://www.chesapeakebay.net/channel_files/19193/chesapeake_2000.pdf.

71. In the twenty-five years since the TMDL provision had been enacted, neither Virginia nor the District of Columbia has submitted a single TMDL document to the EPA. *See, e.g.*, *Kingman Park Civic Ass’n v. EPA*, 84 F. Supp. 2d 1, 2 (D.D.C. 1999) (holding that a failure to submit TMDLs could be construed as a “constructive submission” under the CWA, triggering the EPA’s duty to create its own TMDL); *Am. Canoe Ass’n v. EPA*, 30 F. Supp. 2d 908, 921–22 (E.D. Va. 1998) (holding that EPA’s approval of Virginia’s no impaired waters constructive submission was unlawful).

72. *See Kingman*, 84 F. Supp. 2d at 2 (holding that a failure to submit TMDLs could be construed as a “constructive submission” under the CWA, triggering the EPA’s duty to create its own TMDL); *Am. Canoe Ass’n*, 30 F. Supp. 2d at 921–22 (holding that EPA’s approval of Virginia’s no impaired waters constructive submission was unlawful).

73. *See Houck*, *supra* note 31, at 10,215.

74. *See* 33 U.S.C. § 1267 (2012); NAT’L PARK SERV., CHESAPEAKE BAY SPECIAL RESOURCE STUDY AND FINAL ENVIRONMENTAL IMPACT STUDY 11 (2004). “The Chesapeake Bay was the first estuary in the United States targeted for intensive government-sponsored restoration efforts.” *Id.* at 10.

75. § 1267(g)(1) (emphasis added). The companion House bill, imposing the same duty to “ensure” on EPA, also said that EPA was to do this solely through grants and with no new regulatory authority. *See* H.R. REP. NO. 106-550, at 3 (2000). However, the Estuaries and Clean Waters Act of 2000 resolved the matter, favoring the Senate’s version sans caveat. *See* Estuaries and Clean Water Act of 2000, Pub. L. No. 106-457, 114 Stat. 1957 (2000). Yet, some senators still stressed the “voluntary” nature of the new provision. *See* 146 CONG. REC. 5451 (2000) (statement of Rep. Cardin); 146 CONG. REC. 5453–54 (statement of Rep. Kind). While one could argue that “management” plans are not the same as “implementation” plans, it seems clear from the purpose and language of the legislation (“plans are developed and implementation is begun”) that implementation was its main value-added, and that EPA was to “ensure” it. Estuaries and Clean Water Act of 2000 § 203.

76. *Developing the Chesapeake Bay TMDL*, *supra* note 58.

parks, forests, wildlife refuges, museums, and monuments.⁷⁷ After decades of insufficient progress on the cleanup of the Chesapeake Bay, the executive branch determined rapid action was necessary and ordered the EPA to “make full use of its authorities” to restore the Bay.⁷⁸

In order to achieve its mandate, the EPA first had to develop water quality criteria to address the nutrient- and sediment-related impairments plaguing the estuary.⁷⁹ Working in concert with the Bay jurisdictions and utilizing the agencies’ scientific expertise, the EPA developed nutrient and sediment “cap load allocations” for different tributary basins within the Chesapeake Bay watershed.⁸⁰ These allocations would serve as the basis for each state’s implementation plan.⁸¹ In 2004, Maryland, Virginia, Delaware, and the District of Columbia adopted the EPA’s criteria into their water quality standards regulations.⁸²

In 2009, the EPA directed the Bay jurisdictions to develop a series of Watershed Implementation Plans (WIPs).⁸³ Unlike the implementation plans promulgated as part of the “continuing planning process” described in section 1313(e) of the CWA, these plans were required before the EPA’s final TMDL was established. By forcing the states to figure out beforehand how they might best meet their cap load allocations, the EPA was able to rely on its plans to create a more tailored TMDL that states would be willing to and could realistically implement. The WIP drafting process allowed the EPA to benefit from states’ local knowledge about how to best allocate pollution reductions among various point and nonpoint sources based on the polluting activities’ relative significance to the local economy. In these WIPs, the EPA demanded that each jurisdiction distribute the nutrient and sediment target loads to specific point sources and nonpoint source sectors, as well as set program

77. Exec. Order No. 13508, Chesapeake Bay Protection and Restoration, 74 Fed. Reg. 23,099 (May 12, 2009).

78. *Id.* at 23,101.

79. See ROBERT KORONCAI ET. AL., EPA, SETTING AND ALLOCATING THE CHESAPEAKE BAY BASIN NUTRIENT AND SEDIMENT LOADS: THE COLLABORATIVE PROCESS, TECHNICAL TOOLS AND INNOVATIVE APPROACHES 1 (2003).

80. *Id.* at 2.

81. *Id.*

82. *Developing the Chesapeake Bay TMDL*, *supra* note 58.

83. See Letter from William C. Early, Acting Reg’l Adm’r, to Preston L. Bryant, Jr., Sec’y of Nat. Res. of Va. (Nov. 4, 2009) [hereinafter Expectations Letter]. The letter clarified that the original signatories to the Chesapeake 2000 Agreement, i.e., Maryland, Virginia, Pennsylvania, and the District of Columbia, were to abide by the “regulations, permits or otherwise enforceable agreements that apply to all major sources of these pollutants, including nonpoint sources.” *Id.* at 2. The other Bay jurisdictions, i.e., Delaware, New York, and West Virginia, were “not necessarily expect[ed]” to base all control actions identified in their WIPs on such regulations, permits, or enforceable agreements, but were “strongly encourage[d] . . . to do so.” *Id.* This difference arises because of the Bay jurisdictions’ status as signatories (or not) of the Chesapeake 2000 Agreement and the fact that section 1267(g)(1) gives EPA the power to “ensure that management plans are developed and implementation [has] begun by signatories to the Chesapeake Bay Agreement.” *Id.* (emphasis added) (quoting 33 U.S.C. § 1267(g)(1) (2012)).

milestones for achievement of those targets.⁸⁴ After Phase I WIPs were submitted, the EPA found that most jurisdictions' plans would not meet their respective goals.⁸⁵ Seeking revisions to the original WIPs, EPA reiterated its expectations for the implementation plans and enumerated eight proxy actions the EPA could exercise under its existing authority in the event the Bay jurisdictions' plans failed to adequately address nonpoint source pollution.⁸⁶ Most options included tightening standards on the jurisdictions' point source polluters.⁸⁷ The jurisdictions submitted their revised final Phase I WIPs to be used as assumptions in the EPA's final TMDL.⁸⁸

In December 2010, the EPA finalized the Chesapeake Bay TMDL for nitrogen, phosphorous, and sediment in the Chesapeake Bay and its tidal tributaries, making it the largest and most complex TMDL in the nation.⁸⁹ The detailed plan includes both point and nonpoint source limitations on nitrogen, phosphorous, and sediment for ninety-two segments, allocating those limits to specific point sources and nonpoint source sectors.⁹⁰ The TMDL includes short- and long-term target dates, a tracking system, and federal backstop measures to ensure progress.⁹¹ The EPA also required the seven Bay jurisdictions to provide a "reasonable assurance" that the nonpoint source load requirements could be met.⁹²

III. AMERICAN FARM BUREAU FEDERATION V. EPA

In January 2011, the American Farm Bureau Federation, joined by a variety of agricultural trade associations, challenged the Chesapeake Bay TMDL in the United States District Court for the Middle District of Pennsylvania, arguing that TMDL refers only to a numeric limit on the total

84. *Id.* at 3.

85. Colburn, *supra* note 32, at 714.

86. See Letter from Shawn M. Garvin, Reg'l Adm'r, to Preston L. Bryant, Jr., Sec'y of Nat. Res. of Va. (Dec. 29, 2009) [hereinafter Consequences Letter]. The options included (1) expanding NPDES permit coverage to then unregulated sources, such as concentrated animal feeding operations, smaller animal feeding operations, and small municipal separate storm sewer systems; (2) denying NPDES permits and increasing EPA oversight of the NPDES program; (3) requiring net improvement offsets for point sources; (4) establishing finer scale waste load and load allocations in the final Bay TMDL; (5) requiring additional reductions of loadings from point sources in the final Bay TMDL; (6) increasing and targeting federal enforcement and compliance assurance in the watershed; (7) conditioning or redirecting EPA grants; and (8) initiating federal promulgation of local nutrient water quality standards where state water quality standards do not contain criteria sufficient to protect designated uses locally or downstream. *Id.* at 3–4.

87. *Id.*

88. Colburn, *supra* note 32, at 714.

89. See Clean Water Act Section 303(d): Notice for the Establishment of the Total Maximum Daily Load (TMDL) for the Chesapeake Bay, 76 Fed. Reg. 549 (Jan. 5, 2011); CHESAPEAKE TMDL, *supra* note 56.

90. *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281, 292 (3d Cir. 2015).

91. See *id.*; see also CHESAPEAKE TMDL, *supra* note 56, at ES-8 (requiring states to track their progress through the Bay TMDL Tracking and Accountability System).

92. CHESAPEAKE TMDL, *supra* note 56, at ES-3.

amount of a pollutant that can be discharged in a particular water segment.⁹³ They argued that by including source allocations, target dates, and the requirement of reasonable assurances from the Chesapeake Bay states, the EPA overstepped its statutory authority and interfered with state and local land-use decisions.⁹⁴ The district court acknowledged that whether a TMDL could include more than a quantity of a pollutant was a matter of first impression.⁹⁵ Ultimately, on September 13, 2013, the district court dismissed the challenge on a motion for summary judgment, deferring to the agency's interpretation of TMDL.⁹⁶ The American Farm Bureau Federation appealed and twenty-one states signed on to an amicus brief in support of reversal, arguing that the TMDL was inconsistent with the CWA's cooperative federalism framework and improperly infringed upon states' authority over local land-use regulation.⁹⁷ The states voiced their concern that the EPA's overreach could extend to other watersheds—in particular, the Mississippi River Basin.⁹⁸

On appeal, the Third Circuit agreed with the district court and found that the interpretation of the TMDL provision was governed by the doctrine of administrative deference set out in *Chevron, U.S.A., Inc. v. Natural Resources Defense Council*.⁹⁹ Under the *Chevron* test, courts engage in a two-step analytical framework. First, the court asks “whether Congress has directly spoken to the precise question at issue.”¹⁰⁰ If Congress's intent is clear, the inquiry stops there and both the court and the agency must respect the unambiguously expressed intent of Congress.¹⁰¹ If Congress's intent is ambiguous, the court proceeds to “Step Two,” which then gives the agency's interpretation of the statute deference unless it is “arbitrary, capricious, or manifestly contrary to the statute.”¹⁰²

In “Step One” of *Chevron*, the Third Circuit first analyzed “whether the statute unambiguously forbids the [EPA's] interpretation” of the CWA's

93. *Am. Farm Bureau Fed'n v. EPA*, 984 F. Supp. 2d 289, 316 (M.D. Pa. 2013), *aff'd*, 792 F.3d 281 (3d Cir. 2015).

94. *Id.*

95. *Id.*

96. *Id.* at 344.

97. See Brief of the States of Kansas et al. as Amici Curiae in Support of Reversal, at 1–2, *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281 (3d Cir. 2015), 2014 WL 505475 [hereinafter States' Amicus Brief]. West Virginia's Republican Attorney General Patrick Morrissey was the only attorney general from a Bay jurisdiction to join the challenge. His predecessor, Democrat Darrell McGraw, was in office at the time West Virginia signed the TMDL agreement. Josh Hicks, *US Appeals Court Upholds Chesapeake Bay Clean-up Plan*, WASH. POST (July 6, 2015), https://www.washingtonpost.com/local/md-politics/us-appeals-court-upholds-chesapeake-bay-clean-up-plan/2015/07/06/d5dfb3ea-2423-11e5-b72c-2b7d516e1e0e_story.html.

98. States' Amicus Brief, *supra* note 97, at 1.

99. *Am. Farm Bureau Fed'n v. E.P.A.*, 792 F.3d 281, 294 (3d Cir. 2015); *Chevron, U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 843 (1984).

100. *Am. Farm Bureau Fed'n*, 792 F.3d at 294 (quoting *Chevron*, 467 U.S. at 842–43).

101. *Chevron*, 467 U.S. at 842–43.

102. *Am. Farm Bureau Fed'n*, 792 F.3d at 294 (quoting *Chevron*, 467 U.S. at 844).

TMDL provision.¹⁰³ The Farm Bureau argued that the statute “unambiguously forecloses the EPA’s interpretation” that a TMDL includes specific allocations, deadlines, and reasonable assurance requirements.¹⁰⁴ Under the Farm Bureau’s reading, “total” is just a number.¹⁰⁵ However, the Third Circuit found that the term TMDL is ambiguous.¹⁰⁶ The Third Circuit reasoned that “total” is susceptible to multiple interpretations, and the EPA would run afoul of the Administrative Procedure Act if it published only a single number with no supporting information.¹⁰⁷ The Third Circuit determined that imposing deadlines and requiring reasonable assurances from states that the TMDLs will actually be implemented is consistent with the purpose of the CWA.¹⁰⁸

Turning to “Step Two” of *Chevron*, the Third Circuit reasoned that the Farm Bureau’s reading of the CWA TMDL provision would shift the burden of meeting water quality standards to point source polluters, which would not result in a cleaner waterway and would therefore be contrary to the purpose of the TMDL provision.¹⁰⁹ The court held that the EPA’s inclusion of allocations for different kinds of sources, deadlines, and reasonable assurance requirements is reasonable and reflects a legitimate policy choice by the EPA to administer an ambiguous statute.¹¹⁰

A. *The (Cooperative) Federalism Canon*

When interpreting a statute under *Chevron*, the court must follow the principle that “Congress does not readily interfere” with states’ “substantial sovereign powers under our constitutional scheme.”¹¹¹ This is known as the “federalism canon” of statutory construction.¹¹² In its *Chevron* “Step One” analysis, the Third Circuit considered whether its interpretation of TMDL interferes with states’ traditional power to regulate local land-use decisions.¹¹³ The Third Circuit reasoned that because the Bay TMDL does not prescribe any particular *means* of pollution reduction to any individual point or nonpoint source, the EPA could not be interpreted as directly interfering with state land-use decisions.¹¹⁴ The Third Circuit ultimately concluded that because the Farm Bureau did not argue that the EPA coerced the states into accepting the TMDL, and because the TMDL only “obliquely” affects land-use regulations, it “does

103. *Id.* (quoting *Barnhart v. Wilson*, 535 U.S. 212, 218 (2002)).

104. *Id.* at 295.

105. *Id.* at 297.

106. *Id.* at 298.

107. *Id.*

108. *Id.* at 299 (“[The goal of the CWA] informs our understanding that ‘total maximum daily load’ is broad enough to include allocations, target dates, and reasonable assurance.”).

109. *Id.* at 307–09.

110. *Id.*

111. *Gregory v. Ashcroft*, 501 U.S. 452, 461 (1991).

112. *Am. Farm Bureau Fed’n*, 792 F.3d at 301.

113. *See id.* at 302.

114. *Id.* at 303–04.

not prescribe land use rules that excessively intrude on traditional state authority.”¹¹⁵

However, at the district court level, the Farm Bureau argued that the WIP drafting process was coercive.¹¹⁶ Specifically, the Farm Bureau argued that the WIP revision process and the EPA’s insertion of backstop measures exerted pressure over the states that amounted to coercion.¹¹⁷ Acknowledging that there is a fine line between coercion and collaboration, the district court found the EPA’s framework more indicative of the latter.¹¹⁸ In its reasoning, the court stressed that none of the Bay jurisdictions filed a suit challenging the TMDL, and most of the load allocations present in the Chesapeake Bay TMDL were provided by the states in their WIPs—not by the EPA.¹¹⁹

The courts’ comments regarding the coercion-collaboration dichotomy beg the question: In instances where states are not cooperative with the EPA, would the EPA’s approach in the Chesapeake Bay be considered coercive enough “to pass the point at which pressure turns into compulsion” and violate the CWA’s cooperative federalism framework?¹²⁰

B. Coercing Collaboration

Jamison Colburn’s article, “Coercing Collaboration: The Chesapeake Bay Experience,” describes the interplay between the EPA and the Bay jurisdictions as an emerging model of intergovernmental administration to address large-

115. *Id.* at 304. However, the Third Circuit seemingly muddled the law when it comes to distinguishing between what is required in a TMDL versus what is required in the continuing planning process—two separate documents with two separate statutory consequences for states if they fail to promulgate them. Compare 33 U.S.C. § 1313(d) (2012), with § 1313(e). The Chesapeake Bay TMDL was the product of a series of agreements and interim state WIPs, which ultimately fused section 1313(d) TMDLs with their subsequent “continuing planning process[es]” under section 1313(e) to create a unique, comprehensive pollution reduction mechanism not explicitly prescribed by the law. See *Am. Farm Bureau Fed’n*, 792 F.3d at 291–92.

116. *Am. Farm Bureau Fed’n v. EPA*, 984 F. Supp. 2d 289, 322 (M.D. Pa. 2013), *aff’d*, 792 F.3d 281 (3d Cir. 2015). The Farm Bureau presented two slides from EPA’s Chesapeake Bay presentations depicting comic strips that the Bureau suggests are representative of the EPA’s coercive attitude toward the WIP drafting process. *Id.* One comic depicts a classroom with a caged tiger in the rear of the classroom. *Id.* at 323. The headnote reads “It’s a new day for restoring local streams, rivers and the Chesapeake Bay” and the caption reads “Well, Timmy, it looks like you’ve just earned yourself 10 minutes in the cage with Mr. Whiskers.” *Id.* at 322–23. The second comic depicts two men, one with a ball and chain around his ankles. The caption reads “You dropped the ball, You must have known there would be consequences.” *Id.* at 323.

117. *Id.* at 324. The Farm Bureau also raised concerns about “other threats,” which seem to be consistent with the proxy actions the EPA laid out in its December 29, 2009 letter to Virginia’s Secretary of Natural Resources. *Id.* at 323; Consequences Letter, *supra* note 86. However, because the Farm Bureau failed to explain these “other threats,” the District Court did not address them in its opinion.

118. *Am. Farm Bureau Fed’n*, 984 F. Supp. 2d at 324.

119. *Id.*

120. See *South Dakota v. Dole*, 483 U.S. 203, 204, 211 (1987) (highlighting the limitations the Constitution places on Congress when it uses its authority to influence the individual states in areas of authority normally reserved to the states).

scale environmental problems.¹²¹ Colburn characterizes the Chesapeake Bay model as something between the poles of coercion and collaboration: “a means of spurring sub-national jurisdictions into using their own local knowledge . . . backed by sufficient assurances that everyone would do their part, or else effective proxy actions would ensue.”¹²² The model relies on the pooling of state and local jurisdiction over nonpoint sources, federal jurisdiction over point sources, federal grant and subsidy funding, and the President’s authority to focus the executive branch on an issue in order to create obligations from local, state, and federal actors that are mutually reinforcing.¹²³ Colburn argues that the Chesapeake model of intergovernmental administration should be replicated in other interstate bodies of water, including the Mississippi River Basin.¹²⁴ In order for such an interstate plan to work, Colburn suggests that each state’s obligations must be backed by the EPA’s existing authority to enforce the CWA in proportion to any actor’s failure.¹²⁵

C. *Limits of American Farm Bureau*

Colburn is not the only one to suggest the Chesapeake Bay model could transfer to other bodies of water.¹²⁶ In fact, President Obama’s Executive Order 13508 called for just that—urging the federal government to use the Chesapeake Bay TMDL as a model to “protect other bodies of water” moving forward.¹²⁷ This very idea spurred an amicus brief from twenty-one states supporting the Farm Bureau’s challenge to the Chesapeake Bay TMDL.¹²⁸ Unsurprisingly, most of the states opposing the Chesapeake Bay TMDL fall within the jurisdiction of a major watershed plagued by similar nutrient and sediment pollution.¹²⁹ In recent litigation, environmental groups have called on the federal government to take a more active role in setting numeric nutrient criteria and watershed-wide TMDLs for these watersheds.¹³⁰ Many states

121. Colburn, *supra* note 32, at 677.

122. *Id.* at 735.

123. *Id.* at 731.

124. *Id.* at 677, 742.

125. *Id.* at 710; *see also* Consequences Letter, *supra* note 86, at 3–4 (detailing the options the EPA has under its existing authority to encourage states to cooperate).

126. *See, e.g.*, NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., *supra* note 50, at 12 (“[T]hrough a process similar to that applied to the Chesapeake Bay, the EPA should develop a federal TMDL, or its functional equivalent, for the Mississippi River and the northern Gulf of Mexico.”).

127. Exec. Order No. 13508, *supra* note 77, at 23, 101.

128. *See* States’ Amicus Brief, *supra* note 97, at 1–2.

129. *Compare* States’ Amicus Brief, *supra* note 97, at 1 (listing Kansas, Indiana, Missouri, Alabama, Alaska, Arkansas, Florida, Georgia, Kentucky, Louisiana, Michigan, Montana, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, Texas, Utah, West Virginia, and Wyoming as signatories), *with* Jody M. Endres & Matthew A. Walker, *A Tale of Three Watersheds: U.S. EPA’s Contrasting Approaches to Agricultural Nutrient Pollution*, 2 WIRE WATER 47, 47–54 (2015) (noting that most of the signatories fall within the Mississippi River Basin watershed or the watersheds near Florida).

130. *See, e.g.*, *Gulf Restoration Network v. McCarthy*, 783 F.3d 227, 229–30 (5th Cir. 2015) (finding EPA had the discretion to not make a decision about whether federal numeric nutrient criteria

opposing the Chesapeake Bay TMDL, and the agricultural interests that support their economies, fear that the court's decision in *American Farm Bureau* paves the way for an increased federal presence in regulating nonpoint source pollution along the massive, interstate Mississippi River Basin.¹³¹

However, the Third Circuit's decision in *American Farm Bureau* does little to lay the foundation necessary to tackle nonpoint source pollution along the Mississippi River. The validity of the Third Circuit's judgment to uphold the EPA's Chesapeake Bay TMDL hinges delicately on the unique mixture of targeted legislation, an executive order, and the voluntary agreement of the Chesapeake Bay jurisdictions to cooperate and hand over TMDL-setting authority to the EPA in the first instance. Interestingly, the Third Circuit opinion either omits, or only briefly mentions these elements, rather than stressing their significance to the legal validity of the Chesapeake Bay TMDL.¹³² Instead of limiting its opinion to these unique factors, which imbued the EPA with the requisite authority to set an unusually prescriptive, multistate TMDL, the Third Circuit attempted to justify its decision through dubious statutory interpretation and vulnerable legal reasoning.¹³³

While Jamison Colburn highlights the benefits of the Chesapeake Bay model in bridging the regulatory gap in the CWA's TMDL provision, he also recognizes its weaknesses.¹³⁴ Colburn argues that the Chesapeake Bay TMDL and its reasonable assurance requirement "exerted real power over the Bay jurisdictions."¹³⁵ If a state's WIP failed to accurately account for that state's actual nutrient and sediment contributions, the goals of the Chesapeake Bay TMDL would not be met, and the other Bay jurisdictions would be more likely to shirk their responsibilities. Therefore, the EPA's proposed proxy actions were intended to exert real pressure and hold the states accountable to each other in order to solve a collective action problem and avoid defection. Colburn

are necessary); Fla. Wildlife Fed'n, Inc. v. Jackson, 853 F. Supp. 2d 1138, 1176 (N.D. Fla. 2012) (upholding EPA's promulgation of nutrient criteria for Florida's lakes and flowing waters after Florida failed to do so in accordance with a consent decree).

131. See, e.g., Adam M. Teel, *The Billion Dollar Decision: How the Third Circuit Expanded the Power of the EPA in Implementing TMDLs by Affirming Additional Mandates*, 55 WASHBURN L.J. 563, 588 (2016) (stating that after *American Farm Bureau*, TMDLs may require mandatory nonpoint source regulation); Richard E. Schwartz, *The Potentially Sweeping Effects of EPA's Chesapeake Plan*, LAW360 (Feb. 12, 2016, 12:09 PM), <http://www.law360.com/articles/758194/the-potentially-sweeping-effects-of-epa-s-chesapeake-plan> (stating that, if upheld, the EPA will have the authority to allocate loads to specific nonpoint sources "in every state in the union," and reasoning that the issue hinges on the meaning of the CWA).

132. See *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281, 308 (3d Cir. 2015) (finding that section 1267(g) "does not add to the EPA's regulatory authority, [but] it strongly suggests that cleaning up the Bay is a priority for Congress and that it did not have a problem with the EPA's role in developing goals for the watershed"). The Third Circuit does not mention Executive Order 13508, and only briefly mentions the Bay jurisdictions' decision to allow the EPA to create the TMDL in its summary of background information. See *id.* at 290.

133. See *id.* at 297-99.

134. Colburn, *supra* note 32, at 743 ("Much about the Chesapeake experience is unique.").

135. *Id.* at 732.

acknowledges that had a court deemed the Bay TMDL sufficiently coercive and binding, the TMDL could have been invalidated as agency overreach.¹³⁶

Colburn further surmises that a court could have found the EPA's demand for reasonable assurances "plainly inconsistent" with the language in the current TMDL regulations.¹³⁷ While the withdrawn 2000 TMDL Rule required a state to provide a reasonable assurance in its TMDL document in order to receive EPA approval, the current 40 C.F.R. section 130.2(i) no longer includes that language.¹³⁸ It simply defines a TMDL as "the sum" of load and waste load allocations.¹³⁹ A court could have found that requiring a demonstration of how load allocations will be met is more appropriate for the section 1313(e) "continuing planning process" document, where, unlike the initial section 1313(d) TMDL document, the EPA does not have the authority to promulgate its own implementation plan if a state fails to do so.¹⁴⁰ A court could have interpreted the EPA's requirement of reasonable assurances in the Chesapeake Bay TMDL as an attempt to revive the withdrawn 2000 TMDL Rule's reasonable assurance requirement and found such a requirement "inconsistent" with existing regulations.

Alternatively, a court could have concluded that the EPA's use of their 1991 TMDL Guidance in crafting the Chesapeake TMDL's reasonable assurance requirement was an improperly adopted "legislative" rule.¹⁴¹

136. *Id.* at 735; *see, e.g.*, *Iowa League of Cities v. EPA*, 711 F.3d 844, 861, 864 (8th Cir. 2013) (finding EPA letter to Senator transmitting EPA's interpretation of its rules was "promulgation" of new binding "effluent limitation" because it led others to believe that "failure to conform will bring adverse consequences"); *Barrick Goldstrike Mines, Inc. v. Browner*, 215 F.3d 45, 47 (D.C. Cir. 2000) (finding agency denial of petitioner's claimed exemption was final and binding agency action because petitioner "must change its conduct or risk costly sanctions"). The district court concluded that neither the EPA's "backstop measures" nor its waste load allocations were "binding on the states," and thus, the EPA's actions could not be deemed coercive. Colburn, *supra* note 32, at 709 n.206 (quoting *Am. Farm. Bureau Fed'n v. EPA*, 984 F. Supp. 2d 289, 325 (M.D. Pa. 2013)). Interestingly, the Third Circuit omitted a discussion about whether the EPA's backstop measures and specific nonpoint source sector load allocations were binding on the states.

137. Colburn, *supra* note 32, at 735 (citing *Decker v. Nw. Env'tl. Def. Ctr.*, 133 S. Ct. 1326, 1337 (2013)); *see also* 40 C.F.R. § 130.2(i) (2016).

138. *See* 2000 TMDL Rule, *supra* note 34, at 43,600 (explaining that when the EPA must promulgate a TMDL on behalf of a state, it must include a reasonable assurance its allocations will be met). *Compare id.* at 43,596 ("[T]he TMDL elements in the final rule . . . provide EPA with an element missing from the current regulations, i.e., assurance that the TMDL will in fact be implemented."), *with* 40 C.F.R. § 130.2(i).

139. 40 C.F.R. § 130.2(i).

140. *Compare* 33 U.S.C. § 1313(d) (2012), *with* § 1313(e). Under the 2000 TMDL Rule, the EPA was required to include a reasonable assurance when it promulgated TMDLs on behalf of states, signaling that the reasonable assurance requirement was a condition of approval for the section 1313(d) TMDL document. *See* 2000 TMDL Rule, *supra* note 34, at 43,600.

141. Colburn, *supra* note 32, at 709, 735 (finding EPA permitting guidance was a "binding" legislative rule because, as a practical matter, parties faced possible sanctions for acting contrary thereto). The APA requires notice and comment for "legislative" rules that carry the force and effect of law, but does not require such processes for interpretive rules that simply spell out a duty clearly encompassed within the regulation. *See Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1020-21 (citing *Chrysler Corp. v. Brown*, 441 U.S. 281, 302-03 & n.31 (1979)).

Wanting the reasonable assurance requirement of the 1991 TMDL Guidance to carry the force and effect of law, the requirement did go through notice and comment during the creation of the 2000 TMDL Rule. Given that the 2000 TMDL Rule was ultimately withdrawn, a court could have found that the EPA's inclusion of the requirement in the Chesapeake Bay TMDL was an improperly adopted legislative rule if it determined that the requirements carried the force and effect of law.¹⁴² Such vulnerabilities suggest that *American Farm Bureau* may not be helpful precedent if the EPA tried to replicate the Chesapeake Bay model elsewhere.

If a future court were to face vehement opposition from a state actor directly affected by an equally prescriptive, interstate TMDL, that court would be unlikely to adopt the Third Circuit's expansive interpretation of "total" or ignore claims rooted in rhetoric of agency overreach. If a state filed suit against a federal, watershed-wide TMDL, the Chesapeake Bay model would likely look more unconstitutionally coercive than collaborative.¹⁴³ Given the limits of the CWA's cooperative federalism framework, the politics surrounding such a TMDL are likely to heavily influence the court's decision; nothing in the *American Farm Bureau* decision prevents future courts from striking down federal TMDLs in uncooperative watersheds. Using the Mississippi River Basin as an example, Part IV highlights the shortcomings of the Chesapeake Bay model and the TMDL provision more broadly in addressing nonpoint source pollution in interstate bodies of water.

IV. MISSISSIPPI RIVER BASIN

The Mississippi River Basin is the nation's largest watershed, spanning 1.2 million square miles and 31 states.¹⁴⁴ Agriculture has been a fixture of the Mississippi River Basin's history, and has remained the dominant land use in the region for two hundred years.¹⁴⁵ The Mississippi River serves as the main shipping highway for the Basin's agricultural exports, delivering them to one of the world's largest port districts located at the mouth of the Mississippi River in

142. Colburn, *supra* note 32, at 735. EPA guidance can be deemed an improperly adopted legislative rule "[i]f an agency acts as if a document issued at headquarters is controlling in the field, if it treats the document in the same manner as it treats a legislative rule, if it bases enforcement actions on the policies or interpretations formulated in the document, [or] if it leads private parties or State permitting authorities to believe that it will declare permits invalid unless they comply with the terms of the document." *Appalachian Power*, 208 F.3d at 1021. The EPA's threats to further restrict point source polluters for states' failure to provide reasonable assurances for nonpoint source pollution reductions in their WIPs could reasonably lead state NPDES permitting authorities to believe their point source permits will be denied unless they comply. See Consequences Letter, *supra* note 86, at 3–4.

143. See *Am. Farm Bureau Fed'n v. EPA*, 984 F. Supp. 2d 289, 324 (M.D. Pa. 2013), *aff'd*, 792 F.3d 281 (3d Cir. 2015).

144. *Mississippi River Facts*, NAT'L PARK SERV., <https://www.nps.gov/miss/riverfacts.htm> (last visited May 19, 2017).

145. *Id.* The Mississippi River Basin produces 92 percent of America's agricultural exports. *Id.*

Louisiana.¹⁴⁶ Over the years, the Basin's agricultural economy has significantly altered the river's hydrologic cycle.¹⁴⁷

In many ways, the Mississippi River Basin seems to be following the same path the Chesapeake Bay traveled leading up to the establishment of its watershed-wide TMDL. Like the Chesapeake Bay, the Mississippi River Basin is flooded with nitrogen, phosphorous, and sediment pollution from agricultural nonpoint sources.¹⁴⁸ The pollution drains into the Gulf of Mexico, where it is causing a massive dead zone similar to the dead zones that raised concern in the Chesapeake Bay.¹⁴⁹ Like the Bay jurisdictions, most states along the Mississippi River lack numeric water quality criteria for nutrient pollutants.¹⁵⁰ As a result of states' inaction in addressing nutrient pollution, environmental groups have recently challenged the EPA's hands-off approach to managing water quality in the Mississippi River.¹⁵¹ Such lawsuits are reminiscent of those filed by environmentalists in the late 1990s calling for the EPA to address water quality issues in Virginia and the District of Columbia.¹⁵² Additionally, like the formation of the Chesapeake Bay Executive Council in the 1980s, the Mississippi River Basin established its own regional body aimed at reducing nutrient loading in the watershed—the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (“Gulf Hypoxia Task Force”).¹⁵³ While the Chesapeake Bay and the Mississippi River Basin share a similar path in many respects, the fundamental differences between the two watersheds vitally influence the federal government's approach to regulating them.

146. See *id.* The Mississippi River barge system ships approximately 500 million tons of goods each year. *Id.*

147. *Id.*

148. See MISS. RIVER/GULF OF MEX. WATERSHED NUTRIENT TASK FORCE, GULF HYPOXIA ACTION PLAN 2008, at 15 (2008), https://www.epa.gov/sites/production/files/2015-03/documents/2008_8_28_msbasin_ghap2008_update082608.pdf. Urbanization, timber harvesting, manufacturing, and various hydrologic modifications along the river also contribute to water quality issues. NAT'L RESEARCH COUNCIL OF THE NAT'L ACADS., *supra* note 50, at 1.

149. See 2015 *Gulf of Mexico Dead Zone 'Above Average,'* NOAA (Aug. 4, 2015), <http://www.noaa.gov/stories/2015/080415-gulf-of-mexico-dead-zone-above-average.html>.

150. Standards that have been established are largely narrative. See Oliver A. Houck, *Cooperative Federalism, Nutrients, and the Clean Water Act: Three Cases Revisited*, 44 *Envl. L. Rep.* (Envtl. Law Inst.) 10,426, 10,432 (2014).

151. See, e.g., *Gulf Restoration Network v. Jackson*, No. CV 12-677, 2016 WL 7241473, at *1 (E.D. La. Dec. 15, 2016) (finding EPA had the discretion to not make a decision about whether federal numeric nutrient criteria are necessary).

152. See, e.g., *Kingman Park Civic Ass'n v. EPA*, 84 F. Supp. 2d 1, 2 (D.D.C. 1999) (holding that a failure to submit TMDLs could be construed as a “constructive submission” under the CWA); *Am. Canoe Ass'n v. EPA*, 30 F. Supp. 2d 908, 921–22 (E.D. Va. 1998) (holding that EPA's approval of Virginia's no impaired waters constructive submission was unlawful).

153. The Gulf Hypoxia Task Force was established in 1997. *History of the Hypoxia Task Force*, EPA, <https://www.epa.gov/ms-htf/history-hypoxia-task-force> (last visited May 19, 2017); see also HOWARD R. ERNST, *CHESAPEAKE BAY BLUES: SCIENCE, POLITICS, AND THE STRUGGLE TO SAVE THE BAY* 16, fig. 1.1 (2003) (depicting the eighteen committees and subcommittees that make up the Chesapeake Bay Program organizational structure).

Three seemingly insurmountable roadblocks exist when attempting to transfer the Chesapeake Bay model to the Mississippi River Basin. First, the EPA has made clear its reluctance in taking on water quality issues in the Mississippi River Basin, given the daunting management challenges it presents. Second, even if the EPA wanted to take on the challenge of creating a watershed-wide TMDL for the Mississippi River Basin, the EPA would likely face political backlash from the conservative, agricultural states lining the river. Such opposition would only add to the EPA's administrative burden by limiting the agency's access to local knowledge regarding the sources of pollution and their relative economic significance. Lastly, even if the EPA were able to promulgate a prescriptive, watershed-wide TMDL for the Mississippi River Basin in the face of vehement opposition, a court would be unlikely to uphold the validity of such a TMDL based on the Third Circuit's opinion in *American Farm Bureau* if any affected state challenged its implementation.

A. EPA's Reluctance

The EPA has explained it has no interest in crafting a watershed-wide TMDL that the Mississippi River Basin states have not asked for and are not prepared to develop.¹⁵⁴ Without active interest and cooperation from the states, a watershed-wide TMDL is virtually impossible. The Mississippi River Basin is the nation's largest watershed, extending over thirty-one states.¹⁵⁵ Coordinating such a massive TMDL, even without state and industry pushback, would be a huge administrative burden for the EPA.¹⁵⁶ While the bulk of the Chesapeake Bay watershed is housed within a single EPA region,¹⁵⁷ the Mississippi River Basin spans six different EPA regions, further complicating the agency's ability to coordinate such a colossal undertaking.¹⁵⁸

Recent litigation concerning water quality in the Mississippi River highlights both the EPA's unwillingness to play a major role in improving water quality in the Basin and the court's hesitancy to force such a burden upon

154. Darryl Fears, *From Alaska to Florida, Attorneys General Join Fight to End Chesapeake Bay Cleanup*, WASH. POST (Feb. 5, 2014), https://www.washingtonpost.com/national/health-science/from-alaska-to-florida-attorneys-general-join-fight-to-end-chesapeake-bay-cleanup/2014/02/05/d88a426c-8e7f-11e3-b46a-5a3d0d2130da_story.html?tid=a_inl&utm_term=.a18e10a00d5f.

155. *Mississippi River Facts*, *supra* note 144.

156. See Houck, *supra* note 150, at 10,433 (describing the prospect of agency's promulgation of federal nutrient water quality standards for the Mississippi River Basin as "a daunting management challenge").

157. EPA Region 3 serves Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia. *EPA Region 3 (Mid-Atlantic)*, EPA, <https://www.epa.gov/aboutepa/epa-region-3-mid-atlantic> (last visited May 19, 2017). The only Bay jurisdiction not present in EPA Region 3 is New York, so some cross-region coordination did take place. See EPA, CHESAPEAKE BAY COMPLIANCE AND ENFORCEMENT STRATEGY 1 (2010), <https://www.epa.gov/restoration-chesapeake-bay/chesapeake-bay-compliance-and-enforcement-strategy-may-2010>.

158. See *EPA Regions Contacts Map*, EPA, https://www3.epa.gov/scram001/guidance_cont_regions.htm (last visited May 19, 2017); *The Mississippi/Atchafalaya River Basin (MARB)*, EPA, <https://www.epa.gov/ms-htf/mississippiatchafalaya-river-basin-marb> (last visited May 19, 2017).

the agency.¹⁵⁹ In *Gulf Restoration Network v. Jackson*, environmental advocacy groups challenged the EPA's denial of their petition requesting the promulgation of federal numeric water quality standards for nitrogen and phosphorous.¹⁶⁰ In response, the agency voiced its preference to pursue a more "effective and sustainable" approach to water quality in the Mississippi River by "work[ing] cooperatively" with state agencies.¹⁶¹ The EPA noted the request to promulgate federal numeric nutrient criteria for thirty-one states at once is "unprecedented and complex," "highly resource and time intensive," and ultimately impractical.¹⁶² Before requiring the EPA to make a necessity determination in response to the plaintiffs' petition, the district court stressed that the CWA is a "states-in-the-first-instance regulatory scheme."¹⁶³

On appeal, the Fifth Circuit remanded the case to the district court to determine whether the EPA appropriately declined to make a necessity determination.¹⁶⁴ The EPA's necessity determination is subject to the Administrative Procedure Act's "highly deferential" arbitrary and capricious standard of review, and, therefore, "the agency's burden is slight."¹⁶⁵ So long as the EPA provides "some reasonable explanation as to why it cannot or will not exercise its discretion," and so long as this explanation is grounded in the statute, the EPA has considerable discretion in choosing how to best carry out the CWA's mandate.¹⁶⁶

While the *Gulf Restoration Network* litigation deals with setting water quality standards for nutrient pollution, rather than TMDLs, the EPA's concerns about administrative burden remain valid. Given that setting nutrient criteria is a necessary precursor to setting a watershed-wide TMDL for nutrient pollution, the management challenge only becomes more daunting as the EPA's responsibilities grow. The variability of ecosystem responses to nutrient pollution makes nutrient criteria much more difficult to develop than other types of water quality standards.¹⁶⁷ Setting nutrient criteria for 31 states that

159. See, e.g., *Gulf Restoration Network v. Jackson*, No. 12-677, 2016 WL 7241473, at *1 (E.D. La. Dec. 15, 2016), *enforcing sub nom.* *Gulf Restoration Network v. McCarthy*, 783 F.3d 227, 229–30 (5th Cir. 2015) (finding EPA had the discretion to not make a decision about whether federal numeric nutrient criteria are necessary).

160. *Gulf Restoration Network v. Jackson*, No. 12-677, 2013 WL 5328547, at *3 (E.D. La. Sept. 20, 2013), *vacated and remanded sub nom.* *Gulf Restoration Network v. McCarthy*, 783 F.3d 227 (5th Cir. 2015).

161. *Id.* at *2.

162. *Id.*

163. *Id.* at *7. Section 1313(c)(4)(B) requires the EPA to make a necessity determination as a prerequisite to the promulgation of federal water quality control standards. 33 U.S.C. § 1313(c)(4)(B) (2012). In *Gulf Restoration Network*, the plaintiffs challenged the EPA's refusal to make an either affirmative or negative necessity determination in response to the plaintiff's rulemaking petition. 2013 WL 5328547, at *4.

164. *Gulf Restoration Network*, 783 F.3d at 244.

165. *Id.*

166. *Id.* at 238.

167. See Alexander J. Smith & Christopher P. Tran, *A Weight-of-Evidence Approach to Define Nutrient Criteria Protective of Aquatic Life in Large Rivers*, 29 J. N. AM. BENTHOLOGICAL SOC'Y 875,

effectively tracks the effects of nutrient pollution as it travels the 2300-mile stretch of the Mississippi River and its various tributaries would be a resource-intensive, highly technical scientific undertaking for the EPA.¹⁶⁸ Completing the rulemaking process adds another significant burden to the EPA's plate, given the complexity of the technical issues and the large number of stakeholder comments to which the EPA must respond.¹⁶⁹ Once established, the EPA would then have to figure out the sediment, phosphorous, and nitrogen pollution contributions of each point source and nonpoint source sector in all thirty-one states, set load allocations that attempt to account for the pollution sources' relative importance to the local economy, and coordinate the allocations in a manner that ensures upstream states' nonpoint source pollution is not unfairly impacting downstream states' water quality goals.

Furthermore, both the EPA's and the courts' responses in the *Gulf Restoration Network* litigation demonstrate a resistance to increased federal control over water quality in the Mississippi River Basin, which stands as a significant departure from the results of the Virginia and the District of Columbia TMDL litigation in the late 1990s. For example, the EPA agreed to an eleven-year time frame to promulgate TMDLs across Virginia after the state failed to submit a single TMDL document for the EPA's review.¹⁷⁰ The court formalized the commitment with a consent decree in order to save the TMDL provision's mandate from being rendered a "dead letter by state subterfuge and recalcitrance."¹⁷¹ The court in *Kingman Park Civic Association v. EPA* also imposed a nondiscretionary duty on the EPA to promulgate its own TMDLs following the District of Columbia's eighteen-year failure to submit TMDLs.¹⁷² The CWA provisions governing water quality standards and TMDLs both require the EPA to act in the event of a state's failure to submit adequate standards.¹⁷³ However, the district court in Louisiana seems inclined to allow the Basin states more time to cooperate with the EPA to set their own nutrient quality standards before it allows the EPA to take over.¹⁷⁴

Moreover, although environmentalists have begun focusing on nutrient pollution in the Mississippi River Basin watershed,¹⁷⁵ the Mississippi River has never garnered the same national sentiment as the Chesapeake Bay, and,

875–76 (2010). Most water quality standards are based on a toxicity threshold identified through laboratory testing. *Id.*

168. See Letter from Michael H. Shapiro, Deputy Assistant Adm'r, EPA, to Kevin Reuther, Legal Dir., Minn. Ctr. for Envtl. Advocacy & Albert Ettinger 4 (July 29, 2011).

169. *Id.*

170. *Am. Canoe Ass'n, Inc. v. EPA*, 54 F. Supp. 2d 621, 624 (E.D. Va. 1999).

171. *Id.* at 628–29; see also Houck, *supra* note 31, at 10,215 (noting the Virginia court's comments represented "[s]trong language from a conservative jurisdiction").

172. *Kingman Park Civic Ass'n v. EPA*, 84 F. Supp. 2d 1, 5 (D.D.C. 1999).

173. See 33 U.S.C. § 1313(b), (d)(2) (2012).

174. See *Gulf Restoration Network v. Jackson*, No. 12-677, 2013 WL 5328547, at *7 (E.D. La. Sept. 20, 2013), *vacated and remanded sub nom. Gulf Restoration Network v. McCarthy*, 783 F.3d 227 (5th Cir. 2015).

175. See *id.* at *3.

consequently, has never been the subject of congressional or executive actions targeted at cleaning the waterway. Whether due to the Bay's proximity to the nation's capital or simply to its natural beauty, presidents throughout history have regarded the Chesapeake Bay as a national treasure.¹⁷⁶ The same sentiment has not been shown among the nation's leadership regarding the Mississippi River, which has historically been praised as a functional shipping thoroughfare rather than for its aesthetic appeal.¹⁷⁷ This difference in national sentiment surrounding the two watersheds is evident from the lack of targeted legislation or executive orders calling for the cleanup of the nation's largest waterway.

Part of the EPA's reluctance to tackle nutrient pollution in the Mississippi River Basin is simply the lack of any meaningful call for action among state political leaders. While the Chesapeake Bay TMDL enjoyed support from a broad coalition of many of the Bay jurisdictions' top officials early on, no governor within the Mississippi River Basin has indicated an interest in working with the EPA to create a meaningful plan to reduce nutrient pollution in the watershed.¹⁷⁸ In fact, the amicus brief supported by many states within the Mississippi River Basin shows the exact opposite sentiment—an opposition to any federal involvement in the regulation of nonpoint sources.¹⁷⁹

B. High Likelihood of State Backlash

Even if the EPA were willing to create a watershed-wide TMDL for the Mississippi River Basin, the agency would still likely face backlash from the Basin states for doing so. Unfortunately, uncooperativeness is the norm under

176. In 1984, Ronald Reagan declared, "[T]he Chesapeake Bay is a national treasure that is worth preserving for its own sake." NAT'L PARK SERV., *supra* note 74, at 64; *see also* Exec. Order No. 13508, *supra* note 77 ("The Chesapeake Bay is a national treasure . . .").

177. *See, e.g.*, 33 U.S.C. §§ 641–53 (establishing the Mississippi River Commission as a means of maintaining and improving the river as a commercial waterway); Janet S. Smith, *Mississippi River*, in *DICTIONARY OF AMERICAN HISTORY* 415–18 (Stanley I. Kutler ed., 3d ed. 2003) (chronicling the river's historical development as a commercial waterway); MARK TWAIN, *LIFE ON THE MISSISSIPPI* 23 (1883) (referring to the Mississippi River as "the Great Sewer").

178. A key difference between the two regional bodies, the Chesapeake Bay Executive Council and the Gulf Hypoxia Task Force, is the makeup of their respective membership. Unlike the Gulf Hypoxia Task Force, the Chesapeake Bay Executive Council's membership includes the governors of Maryland, Pennsylvania, and Virginia, and the mayor of the District of Columbia. The Gulf Hypoxia Task Force currently lacks the support of any state governor, signifying a lower level of state commitment to furthering the pollution-reduction goals of the Task Force. *See* Charter of the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (1998) (listing Task Force representatives from nine states and two tribal entities, including Arkansas's Soil and Water Conservation Commissioner, Illinois's Director of Agriculture, Iowa's Secretary of Agriculture and Land Stewardship, Louisiana's Director of Water Resources, Minnesota's Commissioner of Pollution Control, Mississippi's Executive Director of Environmental Quality, Missouri's Director of Natural Resources, Tennessee's Commissioner of Agriculture, Wisconsin's Secretary of Natural Resources, the Tribal Chief of the Mississippi Band of Choctaw Indians, and the President of the Prairie Island Indian Community).

179. States' Amicus Brief, *supra* note 97, at 1.

the CWA's framework of cooperative federalism.¹⁸⁰ States' blind adherence to their political boundaries and lack of meaningful incentive for enforcement has always made solutions to interstate water pollution difficult.¹⁸¹ The failure of the Basin states to promulgate numeric nutrient criteria is indicative of the level of interest the states have in addressing nutrient pollution in the Gulf.¹⁸² While states in the Chesapeake Bay were also slow to adopt numeric nutrient criteria, key differences between the watersheds suggest such sluggishness will be much more difficult to overcome in the Mississippi River Basin context.

Unlike the Chesapeake Bay, which lies mostly within Maryland and Virginia, the nutrient pollution that runs through the Mississippi River pools in a dead zone in the northern Gulf of Mexico.¹⁸³ In the Chesapeake Bay context, the Bay jurisdictions either lined the polluted Bay or sat in very close proximity to it, seeing for themselves the nutrient-induced algal blooms and feeling the economic effects of water pollution on their tourism and fishing industries.¹⁸⁴ In the Mississippi River Basin context, however, the Gulf dead zone is both physically and economically removed from its largest polluters.¹⁸⁵ This physical distance between polluter and the polluted in the Mississippi River

180. See generally Jessica Bulman-Pozen & Heather K. Gerken, *Uncooperative Federalism*, 118 YALE L.J. 1256 (2009) (exploring ways in which states may use their role as insiders to challenge the federal government).

181. See J.B. Ruhl, *Interstate Pollution Control and Resource Development Planning: Outmoded Approaches or Outmoded Politics?*, 28 NAT. RES. J. 293, 293 (1988).

182. Illinois, Iowa, Indiana, Missouri, and Kentucky are the top five contributors to the Gulf dead zone, providing 54 percent of the nutrient loading. Illinois has not developed a work plan for development of nutrient criteria for streams and no longer identifies phosphorous as an impairment at all. Iowa lacks any work plan for development of numeric nutrient criteria for any class of waters, as the Environmental Protection Commission determined such criteria were "not necessary at this time." Indiana and Missouri appear to have abandoned all efforts to develop numeric nutrient criteria for any class of water. Kentucky has yet to propose numeric criteria and representatives have stated that numeric criteria "may not be the most effective approach to addressing nutrient challenges." Letter from the Miss. River Collaborative et al., to Nancy Stoner, Acting Assistant Adm'r for Water, EPA (Feb. 13, 2014) [hereinafter Lack of State Progress Letter]; see also MISS. RIVER COLLABORATIVE, DECADES OF DELAY: EPA LEADERSHIP STILL LACKING IN PROTECTING AMERICA'S GREAT RIVER 1-2, (2016), <http://www.msrivercollab.org/wp-content/uploads/Decades-of-Delay-MRC-Nov-2016.pdf> (providing an update on Basin states' continued lack of progress in setting numeric nitrogen and phosphorous criteria).

183. See 2015 *Gulf of Mexico Dead Zone 'Above Average'*, *supra* note 149.

184. See Press Release, Chesapeake Bay Foundation, CBF Report Finds Bay Pollution is Killing Jobs and Slowing Economy; Further Cleanup Delays Could Cost Region Billions in Losses (Nov. 29, 2010), <http://www.cbf.org/news-media/newsroom/2010/va/bay-pollution-is-killing-jobs-slowng-economy.html> (describing the Chesapeake Bay region's economic losses due to water pollution).

185. See Lack of State Progress Letter, *supra* note 182. However, some Basin states are not totally isolated from the effects of nutrient pollution, as many waterways within the states experience visible algae blooms and economic losses as a result of nutrient pollution. See MISS. RIVER COLLABORATIVE, DECADES OF DELAY, *supra* note 182, at 32-74. The economic losses, however, are slight in comparison to those experienced by the industries dependent on both the Gulf and the Chesapeake Bay. See Press Release, Chesapeake Bay Foundation, *supra* note 184 (describing the Chesapeake Bay region's economic losses due to water pollution); Melodi Smith & Jason Hanna, *Gulf of Mexico 'Dead Zone' is the Size of Connecticut*, CNN (Aug. 5, 2014, 5:08 PM), <http://www.cnn.com/2014/08/05/tech/gulf-of-mexico-dead-zone/> (describing the Gulf dead zone as the second largest caused by humans with substantial costs to the seafood and tourism industries).

Basin context likely contributes to the lack of political will among states to address nonpoint source nutrient pollution. This is a classic case of unchecked interstate externalities and is therefore a perfect candidate for federal regulation.¹⁸⁶ At the same time, due to the CWA's regulatory gap, the EPA has limited authority to coordinate TMDLs in the interstate context that are capable of holding upstream nonpoint source polluters accountable for their effects downstream.¹⁸⁷

Colburn's Chesapeake Bay model for intergovernmental administration relies on the EPA's ability to spur states to contribute their local knowledge to help the federal government solve an interstate pollution problem.¹⁸⁸ The initial voluntary cooperation by the principal Bay jurisdictions was vital to the Chesapeake Bay model's success.¹⁸⁹ Without the voluntarily signed Chesapeake 2000 Agreement and its commitments, the Chesapeake Bay TMDL likely would not have been possible. The commitments in the Chesapeake 2000 Agreement—combined with Congress's establishment of the Chesapeake Bay Program—gave EPA some leverage to help spur state cooperation in the WIP drafting process.¹⁹⁰

Unfortunately, securing initial voluntary commitments from key Basin states is unlikely. The conservative leadership in the Basin states likely views regulating nonpoint source polluters as a major political risk, with little-to-no discernable payoff for its constituents.¹⁹¹ Most of the Basin states' economies rely heavily on the agricultural industry.¹⁹² A TMDL of the magnitude that would be required to address the Gulf dead zone would likely result in significant costs to both taxpayers and the agricultural industry throughout the Mississippi River Basin.¹⁹³ Because most states' agricultural runoff flows downstream to the Gulf, the citizens of upstream states have little, if any,

186. See *supra* Part I.A.

187. See *supra* Part I.D.

188. See Colburn, *supra* note 32, at 735.

189. See *id.* at 700.

190. See Expectations Letter, *supra* note 83, at 2 (noting how 33 U.S.C. section 1267(g) authorized EPA to "ensure" Chesapeake 2000 signatories begin TMDL implementation).

191. See, e.g., States' Amicus Brief, *supra* note 97, at 20 (claiming EPA's regulation of pollutants in the Mississippi River Basin could "potentially debilitate" a significant portion of U.S. agricultural production); Brief of Thirty-Nine Bipartisan Members of Congress & Washington Legal Foundation as Amici Curiae in Support of Appellants, Urging Reversal, at 4 n.3, *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281 (3d Cir. 2015), 2014 WL 2921353 (mentioning the significant costs of TMDL implementation on private landowners, businesses, and residents).

192. See Andy Kiersz, *Ranked: The Economies of All 50 U.S. States and D.C. from Worst to Best*, BUS. INSIDER (Aug. 3, 2015, 8:06 AM), <http://www.businessinsider.com/state-economy-ranking-july-2015-2015-7/#51-mississippi-1> (describing the main industries in each state).

193. While an estimate of the cost of a watershed-wide TMDL for the Mississippi River Basin is unavailable, estimates from the Chesapeake TMDL shed light on the cost of reducing interstate nutrient pollution through a TMDL. For example, implementing the WIPs in the Chesapeake Bay is estimated to cost about \$3.6 billion each year between 2011 and 2025, and about \$900 million each year after that. Zach Kaufman et al., *Agricultural Costs of the Chesapeake Bay Total Maximum Daily Load*, 48 ENVTL. SCI. & TECH. 14,131, 14,137 (2014).

incentive to invite the compliance costs associated with a TMDL. Therefore, the only states with an economic incentive to reduce nutrient pollution along the Mississippi River Basin are the states sitting on the Mississippi River Delta who derive significant income from the fishing and seafood industries.¹⁹⁴ The National Oceanic and Atmospheric Administration estimates the Gulf dead zone currently costs the U.S. seafood and tourism industries \$82 million a year.¹⁹⁵

Yet, historically, even these states have done little to combat environmental harms threatening their marine operations. This is likely because many of the states in the Mississippi River Basin have depressed economies, and pollution-heavy industries, namely oil and farming, make up a disproportionate share of their economies.¹⁹⁶ For example, Mississippi has the lowest gross domestic product (GDP) per capita of any state in the nation, and its economy is inextricably linked to its farming operations.¹⁹⁷ Louisiana's per capita GDP is higher, due in large part to the state's petrochemical industry;¹⁹⁸ even still, the unemployment rate is much higher in Louisiana than in other states across the nation.¹⁹⁹ State officials charged with protecting the environment in these states have a long history of allowing the growth of industry at the cost of environmental contamination.²⁰⁰ If even the downstream states most affected by nutrient pollution are politically and economically opposed to a federally orchestrated TMDL, the EPA is unlikely to find any states in the Mississippi River Basin willing to cooperate.²⁰¹ Without some

194. The Gulf of Mexico Region includes Alabama, Texas, Louisiana, Mississippi, and West Florida. In 2014, the Region's seafood industry generated over \$24 billion in revenue (\$18.3 billion in Florida, \$2.9 billion in Texas, \$2.2 billion in Louisiana, \$661 million in Alabama, and \$199 million in Mississippi). NAT'L MARINE FISHERIES SERV., FISHERIES ECONOMICS OF THE UNITED STATES 2014, at 151 (2016). Louisiana's economy, in particular, relies heavily on commercial and recreational fishing industries, employing over 58,000 people. *See id.* at 168–69 (showing that commercial fishing provides about 44,000 jobs and recreational fishing provides about 15,000 jobs).

195. *The Floods' Lingering Effects: New Study Shows Gulf "Dead Zone" One of the Largest on Record*, NATURE CONSERVANCY, <http://www.nature.org/ourinitiatives/regions/northamerica/areas/gulfofmexico/explore/gulf-of-mexico-dead-zone.xml> (last visited May 20, 2017).

196. *See* Kiersz, *supra* note 192.

197. *See id.*

198. *See id.* The oil industry generates \$30 billion annually in Louisiana, which is sixteen times as much as the revenue from Louisiana's fishing industry. Frank Morris, *Oil, Fishing Industries Entwined in Miss. River Delta*, NPR (June 3, 2010, 10:50 AM), <http://www.npr.org/templates/story/story.php?storyId=127398010>.

199. *See Local Area Unemployment Statistics*, BUREAU OF LABOR STATISTICS, <https://www.bls.gov/web/laus/laumstrk.htm> (last visited May 20, 2017) (ranking Louisiana as the fourth highest state unemployment rate in the country).

200. For example, a former governor of Louisiana once stated that the purpose of the Louisiana Department of Environmental Quality is to "make it as easy as they can within the law" for companies to obtain permits to pollute. J. TIMMONS ROBERTS & MELISSA M. TOFFOLON-WEISS, *CHRONICLES FROM THE ENVIRONMENTAL JUSTICE FRONTLINE* 16 (2001); *see also* PEGGY CONNOLLY ET AL., *ETHICS IN ACTION: A CASE-BASED APPROACH* 159 (2009) (likening Louisiana "to a developing country where a few industries and their political allies profit handsomely, while the masses languish").

201. Louisiana and Alabama were among the states challenging the Chesapeake Bay TMDL. Notably absent from the amicus brief, however, was Mississippi. *See States' Amicus Brief, supra* note

modicum of cooperation from the Basin states, the EPA would struggle to obtain the necessary information required to develop a coordinated, watershed-wide TMDL. Even if the EPA did, there would still be the issue of enforcement, as the EPA does not have the authority to force states to develop detailed implementation plans for its TMDL.

Furthermore, any EPA-led efforts to try and persuade the Basin states to collaborate with the EPA on a federal TMDL are unlikely to succeed. The Chesapeake Bay model brought to light the persuasive powers of the EPA's threats to further restrict point source polluters in order to spur state cooperation.²⁰² However, employing such a tactic in the Mississippi River Basin context presents a much more burdensome administrative challenge given the number of states requiring persuasion. While it is possible that threatening the economic health of point source industries could spur Basin state leaders to cooperate with the EPA, the EPA runs the risk of states calling its bluff.²⁰³ While the district court in *American Farm Bureau* found EPA's use of these tactics during the WIP drafting process non-coercive, future courts assessing the validity of a federal TMDL may not rule the same way if such tactics are executed without a glimmer of states' intent to cooperate.²⁰⁴

C. Hesitancy of Courts to Endorse American Farm Bureau

Without the initial cooperation of key Basin states, the Chesapeake Bay model would likely fail to produce a federal TMDL for the Mississippi River Basin. Yet even if it did, the American Farm Bureau Federation and affected states are likely to challenge its validity in court, voicing the same concerns of agency overreach stressed in the states' *American Farm Bureau* amicus brief.²⁰⁵ With such opposition from the states directly affected by the TMDL, courts within the Basin are unlikely to uphold the TMDL's validity. Part III.C of this Note outlined the vulnerabilities of some of the district court's and Third Circuit's legal reasoning in *American Farm Bureau*. While both courts rightly decided the case based on the arguments and facts presented, at least four of the courts' conclusions could have been decided the other way.²⁰⁶ This leaves some uncertainty about the precedential value of *American Farm Bureau* moving forward.

97, at 1. This is not to suggest that Mississippi leadership would be willing to cooperate with EPA to create a federal TMDL though, as the state's economy is heavily dependent on its agricultural operations.

202. See Colburn, *supra* note 32, at 711.

203. States are likely aware that their inaction would impede the imposition of EPA regulations because of the agency's resource constraints.

204. See *Am. Farm Bureau Fed'n v. EPA*, 984 F. Supp. 2d 289, 322–24 (M.D. Pa. 2013), *aff'd*, 792 F.3d 281 (3d Cir. 2015).

205. See States' Amicus Brief, *supra* note 97, at 1–2.

206. See *supra* Part III.C.

Furthermore, many of the factors that contributed to the Chesapeake Bay's legal validity are simply not present in the Mississippi River Basin context. The Chesapeake Bay Program legislation demonstrated Congress's endorsement of the EPA's enforcement of the commitments made in the Chesapeake 2000 Agreement.²⁰⁷ At the moment, the Mississippi River Basin lacks targeted legislation that would suggest a similar, special Congressional desire for increased federal involvement in the regulation of the Basin's nonpoint source pollution. Most important, however, were the principal Bay jurisdictions' commitments in the Chesapeake 2000 Agreement and the seven Bay jurisdictions' willingness to hand over TMDL-setting authority to the EPA in 2007. Without similar Congressional endorsement and commitments from key states, a court would be unlikely to adopt the Third Circuit's expansive definition of "total" or ignore challengers' concerns about the EPA's overreach into an area of state law.

D. Overcoming Barriers to Nutrient Reduction in the Mississippi River Basin

So what can be done to confront the nutrient pollution plaguing the Gulf? When it comes to cleaning up the Mississippi River Basin, there is no clear regulatory path forward. The watershed's sheer size and significance to America's agricultural industry make controlling the Mississippi River Basin's nonpoint source pollution an extraordinary environmental conundrum. Given the Trump administration's hands-off approach to environmental regulation, a regulatory solution to the Basin's nutrient problem seems more out of reach than ever.²⁰⁸

Some commentators have proposed a continued reliance on farmers' voluntary implementation of agricultural best management practices under the section 1329 nonpoint source management grant program.²⁰⁹ While adequate funding of the nonpoint source management grant program is likely to be a crucial component in cleaning up farming operations along the Mississippi River, availability of funding alone will not spur states to act. A completely voluntary approach to nonpoint source pollution control is what allowed the Gulf dead zone to form in the first place. If history is any indication, most Basin states will not act to control the nutrient pollution spilling into their watershed unless they feel some semblance of pressure to do so.²¹⁰ Until a

207. See *supra* note 75 and accompanying text.

208. See Jennifer A. Dlouhy, *Trump EPA Pick Pledges to Quash Heavy Hand of EPA Rules*, BLOOMBERG (Jan. 18, 2017, 4:00 AM), <https://www.bloomberg.com/news/articles/2017-01-18/trump-epa-pick-to-quash-heavy-hand-in-environmental-regulation-iy2wc6hh>.

209. See, e.g., Taylor A. Beaty, Note, *Life on the Mississippi: Reducing the Harmful Effects of Agricultural Runoff in the Mississippi River Basin*, 41 OHIO N.U. L. REV. 819, 820 (2015) (proposing that the best way to combat large-scale agricultural nonpoint source pollution is through a cooperative process and the implementation of best management practices).

210. See *State Progress Toward Developing Numeric Nutrient Water Quality Criteria for Nitrogen and Phosphorous*, EPA, <https://www.epa.gov/nutrient-policy-data/state-progress-toward->

more environmentally friendly administration is in the White House, it is unlikely Basin states' leadership will feel the need to take meaningful action to reduce their nutrient loads.²¹¹

However, if and when executive leadership shifts, the EPA should think creatively about how to solve the problem in the Mississippi River Basin using its existing authority and incorporating lessons learned from its experience in the Chesapeake Bay. Since a federal TMDL is too daunting from an administrative perspective and too vulnerable from a legal one, the EPA could instead opt to tackle nutrient pollution in the Mississippi River Basin one state at a time. For example, the EPA could focus its limited resources on promulgating conservative numeric nutrient criteria in a downstream state in the Mississippi River Delta, and then enforce the downstream water quality standards against a large contributor of nonpoint source pollution upstream.²¹² Such action has the potential to serve a signaling function, encouraging other upstream states to work cooperatively with the EPA to avoid the same, costly fate.²¹³

CONCLUSION

Due to the constraints of the CWA's cooperative federalism framework, nonpoint source pollution continues to plague waterways across the country, in violation of the statute's goal to restore and maintain the integrity of the nation's waters. The goal of the CWA is gravely compromised by the

developing-numeric-nutrient-water-quality-criteria (last visited May 20, 2017) (depicting a map of each state's progress, or lack thereof, in setting nutrient criteria).

211. In the meantime, however, environmental advocates should focus on trying to neutralize the anti-regulation sentiment among Basin states by organizing grassroots campaigns that increase the transparency of the corrupt political processes in environmental justice havens like Louisiana, and highlight how nutrient pollution directly impacts communities along the river. This includes recreation and tourism losses due to algal blooms, reductions in property values, and increased costs to treat municipal or private drinking water. See EPA OFFICE OF WATER, EPA 820-F-15-096, A COMPILATION OF COST DATA ASSOCIATED WITH THE IMPACTS AND CONTROL OF NUTRIENT POLLUTION ES-1-ES-2 (2015).

212. See *Arkansas v. Oklahoma*, 503 U.S. 91, 102 (1992) (holding EPA has the authority to block the issuance of any NPDES permit that could contribute to the violation of a downstream state's water quality standards); see also 33 U.S.C. § 1342(d)(2), (h) (2012). Wastewater treatment plants contribute to nutrient loading in the Mississippi River, but unlike agricultural runoff, they are considered point sources and thus fall under federal regulatory control. By setting strict nutrient criteria in a downstream state, the EPA could threaten to severely restrict wastewater treatment permitting in an upstream state in order to place indirect pressure on state leadership to address nonpoint source pollution. In order for the EPA to object to the issuance of an upstream NPDES permit, there must be an "actually detectable or measurable" violation of downstream water quality standards. *Arkansas*, 503 U.S. at 110-11. Therefore, the viability of this approach would depend on the strength of the downstream numeric nutrient criteria and the EPA's ability to trace the upstream state's nutrient pollution to a violation of those criteria. With this type of strategy, choosing the right target states would be crucial. The EPA may want to assess which upstream states would be most likely to cooperate with the EPA when faced with restricted point source permitting.

213. Releasing a statement declaring the EPA's intentions to carry out similar enforcement actions in states that refuse to take action to control nonpoint source pollution may finally spur states to act.

dependence upon state and local governments to regulate nonpoint source pollution, whose generally poor record of controlling pollution triggered the need for federal legislation in the first place. While the CWA's TMDL provision was considered a positive first step toward facilitating the implementation plans necessary to reduce nonpoint source pollution in impaired waters, the provision has largely failed in this respect. Part of the reason for the failure of TMDLs is the lack of statutory authority for the EPA to coordinate TMDLs in interstate bodies of water that are capable of holding upstream nonpoint source polluters accountable for their effects downstream.²¹⁴

The Chesapeake Bay TMDL stands as a shining example of what is possible when cooperative federalism works as intended. With the permission of the Bay jurisdictions to set a watershed-wide TMDL in the first instance, the EPA capitalized on decades of coordinating efforts from state and local jurisdictions, Congress, and the executive branch, and was able to transform the concept of a TMDL into a meaningful, interstate water quality standard attainment plan. By leaving much of the pollution allocating to the states in their interim WIPs, and by effectively leveraging proxy actions to ensure states are held accountable for their share of the Bay's pollution, the Bay jurisdictions were able to bridge the regulatory gap in the CWA's TMDL provision to address nonpoint source pollution in a treasured interstate body of water.

Yet, despite the success of the Chesapeake Bay TMDL, the CWA's regulatory gap still exists, and the *American Farm Bureau* decision does little to remedy that. The regulatory gap persists, as it always has, when states do not cooperate. Through an examination of the applicability of the Chesapeake Bay model in the Mississippi River Basin context, it is clear that the politics of a watershed will dictate whether a federal TMDL can be established. What made the Chesapeake Bay TMDL possible was the Bay jurisdictions' willingness to partner with the EPA to reduce pollution that directly affected them. Because such an incentive is currently lacking among most states within the Mississippi River Basin, cooperation and a federal TMDL are unlikely to occur. Until Basin state leadership feels the threat of regulation, it will not appreciate the benefits of cooperation, and the nutrient problem in the Mississippi River Basin will go unaddressed.

214. Even the EPA has acknowledged the limits on their authority to create meaningful TMDLs that hold upstream state nonpoint source polluters accountable. GAO REPORT, *supra* note 28, at 63 ("EPA officials said that the agency cannot require TMDLs to include additional features without issuing new regulations.").

