

LESSONS FOR LAKE CHAMPLAIN FROM CHESAPEAKE BAY: RETURNING BOTH WATERS TO THE “LAND OF LIVING”¹

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INTRODUCTION: LAKE CHAMPLAIN AND THE CHESAPEAKE BAY COMPARED

At first glance, Lake Champlain and the Chesapeake Bay might not seem to have much in common: one is a narrow freshwater lake and the other is a wide saltwater bay and estuary. It is true that Lake Champlain was once a saltwater, inland sea, connected to the Atlantic Ocean just as the

1. The Third Circuit concludes the decision which is the subject of this article with a quote from Robert Frost’s poem, *The Gift Outright*, noting that “[t]he Chesapeake Bay TMDL will require sacrifice by many, but that is a consequence of the tremendous effort it will take to restore health to the Bay—to make it once again a part of our land of living. *Am. Farm Bureau Fed’n v. U.S. Envtl. Prot. Agency*, 792 F.3d 281, 310 (3d Cir. 2015).

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Chesapeake is today.³ For the past ten thousand years or so, however, the water in Lake Champlain has been fresh. The lake is mostly deep and long, with the exception of its most southern reach and northern bays.⁴ The Chesapeake, by contrast, is saltwater and relatively shallow.⁵

These two great waters also differ greatly in the size and patterns of human development in their watersheds. While the area of the Lake Champlain watershed is large relative to the surface area of the lake, the predominant land use is rural and dominated by forests and farms. The lake can brag of bordering two states and the Canadian province of Quebec,⁶ but its watershed is sparsely settled with a relatively small percentage of urban and suburban development.⁷ The Chesapeake Bay is, in contrast, quite a bit larger with a watershed that includes significant parts of six states and the entire District of Columbia—approximately eight times larger than the Lake Champlain basin.⁸ The Chesapeake Bay watershed also has a much greater population, with several major metropolitan areas and intense urban and suburban development.⁹

The two watersheds do, however, share a common set of environmental and legal challenges. First, the bodies of water and their watersheds are both large and complex ecological systems¹⁰ substantially impacted by human activities.¹¹ Both the bay and the lake suffer from the effects of excessive amounts of nutrients and sediment pollution. The specific nutrients of concern are nitrogen and phosphorus. Nitrogen is the greater

3. *Geologists Sees Sea Where Lake Now Flows*, LAKE CHAMPLAIN LIFE, <http://lakechamplainlife.com/lake-champlain-geology/> (last visited Feb. 16, 2016).

4. *Id.*; *Lake and Basin Facts*, LAKE CHAMPLAIN BASIN PROGRAM, <http://www.lcbp.org/about-the-basin/facts/> (last visited Feb. 11, 2016).

5. *Facts and Figures*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/discover/bay101/facts> (last visited Feb. 16, 2016).

6. Vermont, New York, and the Canadian province of Quebec border Lake Champlain. *Nature of the Basin-Lake Champlain Basin Atlas*, LAKE CHAMPLAIN BASIN PROGRAM, http://atlas.lcbp.org/HTML/nat_aboutlcbp.htm (last visited Mar. 30 2016).

7. LAKE CHAMPLAIN BASIN, COMPREHENSIVE WILDLIFE CONSERVATION STRATEGY FOR N.Y. 174 (2015), http://www.dec.ny.gov/docs/wildlife_pdf/lkchamplaintxt.pdf.

8. *Facts and Figures*, *supra* note 5 (indicating that the “surface area of the Bay and its tidal tributaries is approximately 4,480 square miles.”); *Lake and Basin Facts*, *supra* note 4 (“Lake Area: 435 sq[are] miles (1127 sq[are] kilometers) of surface water.”).

9. *See Facts and Figures*, *supra* note 5 (“The Chesapeake Bay watershed is home to more than 17 million people. About 150,000 new people move into the Bay watershed each year.”).

10. *See generally id.* (listing Chesapeake Bay facts indicating how large the bay is and its relation to human activity); LAKE CHAMPLAIN BASIN, *supra* note 7, at 173–74 (describing the size and complexity of the Lake Champlain Basin).

11. *Lake Champlain: The Issues and Threats*, LAKE CHAMPLAIN INT’L, <https://www.mychamplain.net/threats-explained> (last visited Feb. 11, 2016); *Learn the Issues*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/issues> (last visited Mar. 5, 2016); *see also How Does a Healthy Ecosystem Protect Lake Champlain*, STATE OF THE LAKE, http://sol.lcbp.org/Biodiversity_healthy-ecosystems.html (last visited Feb. 11, 2016) (describing the various human impacts on Lake Champlain).

concern for the Chesapeake Bay, while phosphorus is the greater concern for Lake Champlain due to the differences between salt and fresh water ecosystems.¹²

Also, while the relative proportions among sources vary across the two separate watersheds, the categories of pollution that pose the most significant problems are the same: polluted runoff from agriculture and developed land, discharges from municipal and industrial wastewater treatment plants, and erosion from unstable streambanks and beds.¹³ Finally, and significantly for the purposes of this article, both Lake Champlain and the Chesapeake Bay are subject to the protections of the federal Clean Water Act (“CWA”) as implemented by the states. Because both the lake and the bay are impaired due to excessive levels of nutrients, the CWA requires implementation of a type of pollution reduction program referred to as a Total Maximum Daily Load (“TMDL”).¹⁴

More specifically, because both water bodies are impaired and not meeting water quality standards established under the CWA, the United States Environmental Protection Agency (“EPA”) and the affected states have an obligation to work together to establish pollution reduction targets and strategies for meeting those targets.¹⁵ In the case of Chesapeake Bay, EPA has established a TMDL for this purpose.¹⁶ This particular TMDL, as established by EPA, requires each of the six states in the basin and the District of Columbia to establish implementation plans.¹⁷ These plans, which occur in phases, are designed to substantially reduce pollution loads as necessary to return Chesapeake Bay to full health.¹⁸

12. Robert W. Howarth & Roxanne Morino, *Nitrogen as the Limiting Nutrient for Eutrophication in Coastal Marine Ecosystems: Evolving Views Over Three Decades*, 51 *LIMNOLOGY & OCEANOGRAPHY* 364 (2006); VH Smith, GD Tilman, JC Nekola, *Eutrophication: Impacts of Excess Nutrient Inputs on Freshwater, Marine, and Terrestrial Ecosystems*, 100 *ENVTL. POLLUTION* 179, 179–96 (1999); U.S. ENVTL. PROT. AGENCY, PREVENTING EUTROPHICATION: SCIENTIFIC SUPPORT FOR DUAL NUTRIENT CRITERIA 2 (FEB. 2015), <https://www.epa.gov/sites/production/files/documents/nandpfactsheet.pdf> (discussing growing scientific understanding that there is a need to control both phosphorus and nitrogen regardless of whether in a freshwater or saltwater system).

13. *Compare Nitrogen & Phosphorus*, CHESAPEAKE BAY FOUND., <http://www.cbf.org/about-the-bay/issues/dead-zones/nitrogen-phosphorus> (last visited Feb. 17, 2016) (discussing the effects of nitrogen and phosphorus on the Chesapeake Bay estuary); *The Issues and Threats*, *supra* note 11 (listing the various human caused threats to the Lake Champlain estuary).

14. Clean Water Act of 1972, 33 U.S.C. § 1313(d)(1)(C) (1994) (effective Oct. 10, 2000).

15. *Am. Farm Bureau Fed'n*, 792 F.3d at 288 (indicating that under the CWA, EPA and states work together in “cooperative federalism”).

16. *See generally* ENVTL. PROT. AGENCY, CHESAPEAKE BAY TOTAL MAXIMUM DAILY LOAD FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, U.S. ENVTL. PROT. AGENCY (2010), <https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document>.

17. *Id.* at ES-8 to ES-9, http://www.epa.gov/sites/production/files/2014-12/documents/bay_tmdl_executive_summary_final_12.29.10_final_1.pdf.

18. *Id.* at ES-9.

In an effort to address a central inadequacy of past TMDLs, EPA has also established an accountability framework to accompany the Chesapeake Bay TMDL with consequences in the event that the states do not meet the commitments they have made in their implementation plans.¹⁹ These plans include schedules and deliverables that are driving significant investments of resources by the states as well as those sectors that are contributing to the pollution including agriculture, industry, municipalities, and landowners.²⁰ EPA has recently approved a TMDL for Lake Champlain that includes a similar accountability framework.²¹ It is in this way that the fate of these two critical water bodies are linked.

I. TMDLS AS A PATH TO A SOLUTION FOR BOTH THE LAKE AND THE BAY

For many decades, dating back at least to the passage of the CWA in 1972, states and EPA have been attempting to find ways to tackle the full array of pollutants impacting major aquatic ecosystems like Chesapeake Bay and Lake Champlain.²² While significant progress was made with regard to the pollution coming out of municipal and industrial wastewater treatment plants, pollution associated with precipitation events grew worse.²³ The polluted stormwater runoff from the streets of cities, such as Burlington and Baltimore and their suburbs, increased as development expanded.²⁴ Farm runoff from states like Vermont and Virginia increased as more land was converted to grow corn and soybeans with more intensive use of fertilizers and as feedlot operations and dairies grew in size, contributing greater volumes of animal waste.²⁵ Finally, the combination of increased development and the loss of wetland and floodplain functions caused streambanks and beds to become increasingly unstable and erosive.²⁶

19. *Id.* at 7-2, https://www.epa.gov/sites/production/files/2014-12/documents/cbay_final_tmdl_section_7_final_0.pdf.

20. *Id.*

21. U.S. ENVTL. PROT. AGENCY, PHOSPHORUS TMDLS FOR VERMONT SEGMENTS OF LAKE CHAMPLAIN 4959 (2016) <https://www.epa.gov/sites/production/files/2016-06/documents/phosphorus-tmdls-vermont-segments-lake-champlain-jun-17-2016.pdf>.

22. Dave Owen, *After the TMDLs*, *infra* p. 845.

23. *See Learn the Issues*, *supra* note 11 (explaining how stormwater runoff increased because of increased development across the watershed).

24. *See* STORMWATER, LAKE CHAMPLAIN BASIN PROGRAM (2016) (explaining that developed land sends more phosphorus into the lake than agricultural land).

25. Chuck Ross & Marli Rupe, *Agricultural Sources of Water Pollution: How Our History Informs Current Debate*, *infra* p. 825.

26. Dianna M. Hogan & J.V. Loperfido, *Science Summary—Water-Quality Improvement Resulting from Suburban Stormwater Management Practices in the Chesapeake Bay Watershed*, U.S. GEOLOGICAL SURVEY (2013), <http://chesapeake.usgs.gov/sciencesummary->

The structure of the CWA has contributed to increasing the challenge of tackling these widespread and diffuse sources of pollution. The CWA differentiates between pollution that flows out of pipes and precipitation-driven pollution that flows in a more diffuse fashion across the landscape.²⁷ The former categories of pollution are referred to as “point sources” and are subject to strict permit controls relying first on technology-based controls and secondarily on water quality-based limits.²⁸ EPA plays a direct oversight role in the implementation of this point source permitting program, referred to as the “National Pollutant Discharge Elimination System” (“NPDES”).²⁹

Precipitation-driven sources of pollution are typically referred to as “nonpoint sources” and are not subject to the same type of permitting system.³⁰ Instead, these sources are subject to state programs that are largely voluntary and involve limited EPA oversight.³¹ Due to the fact that many waterbodies are significantly impacted by nonpoint source pollution, this distinction poses an obstacle to achieving the CWA’s objective to fully “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.”³²

Adding to the confusion, there is another intermediate category of pollution sources, such as stormwater from large municipalities, certain industrial facilities, and large farms, which have come under increasing levels of direct regulation under the CWA.³³ These latter sources are treated as point sources and are required to obtain NPDES permits. Due to the fact that this category of pollution is frequently driven by precipitation events, the pollution control requirements rely on “best management practices” instead of the more traditional steady-state pollution control technologies used to address point-source pollution.³⁴

As a consequence of this fractured approach, EPA and the states have not effectively addressed the full suite of pollution sources affecting the

stormwatermanagement.html; see also STORMWATER, *supra* note 24 (stating that “stormwater . . . can erode stream banks and increase water pollution”); Mike Kline, *Giving Our Rivers Room To Move: A New Strategy and Contribution to Protecting Vermont’s Communities and Ensuring Clean Water*, *infra* p. 733 (discussing river erosion in Vermont).

27. 33 U.S.C. § 1342(l)(1)–(2) (2012) (explaining that states will not be required to secure a permit for agricultural return flows and stormwater runoff from plants and mines, etc.).

28. *Id.* § 1362(14).

29. *Id.* §§ 1342, 1329(b).

30. *Id.* § 1342(l)(1)–(2). (indicating that nonpoint sources are managed by the states).

31. *Id.* § 1329(b); Dave Owen, *After the TMDLs*, *infra* p. 859.

32. 33 U.S.C. § 1251(a).

33. See generally Kenneth M. Murchison, *Learning From More Than Five-and-a-Half Decades of Federal Water Pollution Control Legislation: Twenty Lessons for the Future*, 32 B.C. ENVTL. AFF. L. REV. 527 (2005).

34. *Id.*

nation’s waters. This state of affairs has led many to look to a provision of the CWA Section 303(d), which is the portion of the Act that requires states to establish TMDLs when water quality is impaired, even after point-source pollution has been controlled through the NPDES permitting program.³⁵ TMDLs can be viewed as the vehicle in the CWA for ensuring that states tackle the challenge of reducing nonpoint source pollution when point-source controls are insufficient to achieve water quality standards, even if fully implemented and enforced.³⁶ To date, the effectiveness of TMDLs in achieving this goal has been mixed, largely due to the lack of an accountability mechanism to ensure that the implementation plans developed for those TMDLs were in fact implemented.³⁷

In the Chesapeake Bay TMDL, EPA attempted to overcome the shortcomings of other large TMDLs through building an accountability mechanism not expressly found in the CWA.³⁸ In response, organizations representing farmers, developers, and businesses challenged EPA’s decision and took their case to the United States Court of Appeals for the Third Circuit, where, as discussed below in more detail, they lost.³⁹

The Lake Champlain TMDL includes an accountability mechanism similar in structure to the one used for Chesapeake Bay⁴⁰ and may face a similar legal challenge. For this reason, a discussion of the Chesapeake Bay TMDL, and the decision by the Third Circuit upholding it, are highly relevant to the efforts underway in Vermont to implement a similar TMDL for Lake Champlain.

II. THE DEVELOPMENT OF THE CHESAPEAKE BAY TMDL

EPA refers to the Chesapeake Bay TMDL—established by EPA on December 29, 2010 and currently being implemented—as “a historic and comprehensive ‘pollution diet’ to restore clean water in the Chesapeake Bay and the region’s streams, creeks, and rivers.”⁴¹ The Chesapeake Bay

35. 33 U.S.C. § 1313(d)(1)(C).

36. See CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at ES-2 (explaining how EPA is making states accountable even if they have been adequately regulating point-source pollution).

37. See Dave Owen, *After the TMDLs*, *infra* pp. 849–53.

38. See CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-4 to 7-12 (discussing the details of the accountability framework).

39. *Am. Farm Bureau Fed’n*, 792 F.3d at 281–82, *cert. denied*, 136 S. Ct. 1246 (2016).

40. Kari Dolan, *The Importance of Inter-Agency Collaboration and Public Engagement in the Development of the Implementation Plan for the Nonpoint Source-Focused Vermont Lake Champlain Phosphorus TMDL*, *infra* pp. 683–84.

41. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHOROUS, AND SEDIMENT, *supra* note 16, at ES-1.

Foundation calls this TMDL the “Chesapeake Clean Water Blueprint.”⁴² The Chesapeake Bay TMDL has its roots in studies and work by state environmental agencies and EPA going back more than four decades.⁴³

The need for water pollution control for Chesapeake Bay arose in the early 1900s when oyster populations began to significantly drop, prompting scientists to question the impacts that human behavior has on Chesapeake Bay.⁴⁴ Other signs of an ecological crisis were demonstrated in the collapse of other major fisheries including the bay’s famed blue crab, menhaden, shad, and striped bass populations and outbreaks of a microorganism releasing chemicals toxic to fish called *Pfiesteria piscicida*, which is associated with eutrophication.⁴⁵

Widespread public recognition of the precise nature of the water quality problems facing the bay grew substantially after Congress tasked EPA with conducting a study on the bay’s health, which culminated in EPA’s 1983 report, “Chesapeake Bay: A Framework for Action.”⁴⁶ The studies identified nutrient pollution as a major culprit with the major sources being agricultural runoff, wastewater from municipal and industrial facilities, urban and suburban stormwater runoff, septic tanks, and atmospheric deposition of nitrogen.⁴⁷ This conclusion has been reinforced and refined in numerous subsequent studies with the most notable addition being the growing appreciation by scientists of the important need to address the causes of erosion from unstable streambanks and channels.⁴⁸ Based on this information, many Chesapeake Bay agreements have been signed over the

42. *What is the Chesapeake Clean Water Blueprint?*, CHESAPEAKE BAY FOUND., <http://www.cbf.org/how-we-save-the-bay/chesapeake-clean-water-blueprint/what-is-the-chesapeake-clean-water-blueprint> (last visited Mar. 5, 2016).

43. *See Bay History*, Chesapeake Bay Program, <http://www.chesapeakebay.net/history> (last visited July 26, 2016) (showing the timeline of the Chesapeake Bay watershed development and history of water pollution); *see also* William G. Howland, *The Lake Champlain Basin Program: Its History and Role*, *infra* p. 588 (discussing a similarly protracted history of efforts to address nutrient pollution in Lake Champlain).

44. *Bay History*, *supra* note 43.

45. *Id.*

46. *See generally* U.S. ENVTL. PROT. AGENCY, CHESAPEAKE BAY: A FRAMEWORK FOR ACTION (1983), http://www.chesapeakebay.net/content/publications/cbp_13262.pdf (indicating EPA’s findings about the water quality of Chesapeake Bay).

47. *Id.* at 39.

48. CHESAPEAKE BAY PROGRAM, BEST MANAGEMENT PRACTICES FOR SEDIMENT CONTROL AND WATER CLARITY ENHANCEMENT 37 (2006), http://www.chesapeakebay.net/content/publications/cbp_13369.pdf; CHESAPEAKE BAY PROGRAM, TECHNICAL MEMORANDUM: ANALYSIS OF STREAM SEDIMENT STUDIES IN SUPPORT OF OBJECTIVE 1 OF THE SEDIMENT REDUCTION AND STREAM CORRIDOR RESTORATION ANALYSIS, EVALUATION AND IMPLEMENTATION SUPPORT TO THE CHESAPEAKE BAY PROGRAM PARTNERSHIP 1 (2014), http://www.chesapeakebay.net/channel_files/21418/techmemo_%283-25-14%29_-_analysis_of_stream_sediment_studies.pdf (recognizing stream channel and bank erosion as a substantial source of sediment load).

years, all aimed at reducing nutrient and sediment loadings into the bay.⁴⁹ To date, however, all have fallen short of restoring the waters to the agreed-upon goals.⁵⁰

The 1983 Chesapeake Bay Agreement was the first significant effort by at least some of the states in the watershed (Maryland, Virginia, Pennsylvania, and the District of Columbia) and EPA to establish a watershed-based effort. The agreement began the path toward the current Chesapeake Bay TMDL.⁵¹ The 1983 agreement established the Chesapeake Executive Council (“CEC”) to “assess and oversee the implementation of coordinate plans to improve and protect the water quality and living resources of the Chesapeake Bay estuarine systems.”⁵² This agreement was insufficient to drive meaningful progress, but the establishment of the CEC laid the foundation of a framework of cooperation between EPA and the states necessary for restoring and protecting the bay.⁵³ The 1987 Chesapeake Bay Agreement renewed the 1983 agreement by establishing the first numeric targets, including a goal of reducing phosphorus and nitrogen loads into the Bay by forty percent by the year 2000.⁵⁴

When it became clear in the late 1990s that those targets would not be met, the states and EPA took another step on the protracted journey toward the current TMDL in the form of the 2000 Chesapeake Bay Agreement.⁵⁵ In this agreement, EPA and the bay states made commitments to reduce nutrient and sediment pollution in the bay sufficient to remove the bay from the list of impaired waters by 2010.⁵⁶ A component of the 2000 Agreement was the commitment to “develop and implement locally supported watershed management plans,”⁵⁷ a concept later broadened and made

49. *Chesapeake Bay Watershed Agreement*, CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net/chesapeakebaywatershedagreement/page> (last visited Mar. 5, 2016) (Chesapeake Bay agreements were signed in 1983, 1987, 1992 (amendments), and 2000).

50. *Id.*

51. CHESAPEAKE BAY PROGRAM, 1983 CHESAPEAKE BAY AGREEMENT (1983), http://www.chesapeakebay.net/content/publications/cbp_12512.pdf.

52. *Id.*

53. *Chesapeake Executive Council*, CHESAPEAKE BAY PROGRAM, http://www.chesapeakebay.net/groups/group/Chesapeake_Executive_Council (last visited Feb. 12, 2016).

54. CHESAPEAKE BAY COMMISSION, 1987 CHESAPEAKE BAY AGREEMENT 3 (1987), http://www.chesapeakebay.net/content/publications/cbp_12510.pdf.

55. CHESAPEAKE BAY PROGRAM, CHESAPEAKE 2000 1 (2000), http://www.chesapeakebay.net/channel_files/19193/chesapeake_2000.pdf.

56. *Id.* at 6.

57. *Id.* at 4.

enforceable in the form of the watershed implementation plans (“WIPs”) developed pursuant to the 2010 TMDL.⁵⁸

The 2000 Chesapeake Bay Agreement, like its predecessors, also failed to achieve meaningful results.⁵⁹ Frustrated by the lack of progress, the Chesapeake Bay Foundation (“CBF”) and other groups filed a lawsuit in 2009 against EPA for failure to implement the 2000 Agreement and the CWA.⁶⁰ CBF’s suit included a long list of studies by EPA’s Office of Inspector General and the Congressional General Accountability Office, demonstrating the failure of the federal government, primarily EPA and the United States Department of Agriculture (“USDA”), to take meaningful steps to control nonpoint source pollution into the bay.⁶¹ In 2010, following the negative publicity for EPA generated by the lawsuit and the reports, EPA and CBF settled, relying on a series of commitments by the United States, including an executive order by President Obama and EPA’s commitment to establish the Chesapeake Bay TMDL.⁶²

President Obama’s Executive Order 13508 established a “Federal Leadership Committee,” chaired by EPA and made up of federal officials, including some from USDA, tasked with developing a strategy to “protect and restore” the bay.⁶³ Following the Executive Order, and with the active support and participation of the six affected states and the District of Columbia, EPA developed the necessary scientific information models and the policy framework necessary to adopt a TMDL for Chesapeake Bay.⁶⁴ EPA also worked with the states to support their development of WIPs

58. See *Watershed Implementation Plans*, CHESAPEAKE BAY PROGRAM, <https://www.chesapeakebay.net/about/programs/watershed> (last visited Mar. 11, 2016) (giving a brief overview of WIPs and providing links to each phase of each state’s WIPs).

59. Karl Blankenship, *After TMDL Process, Bay Program Finds Itself at a Crossroads*, BAY J. (May 1, 2011), http://www.bayjournal.com/article/after_tmdl_process_bay_program_finds_itself_at_a_crossroads (explaining where the Chesapeake 2000 fell short on restoration).

60. Complaint at 1–2, *Fowler v. U.S. Env’tl. Prot. Agency*, No 1:09-cv-0005-CKK (D.D.C. Jan. 5, 2009), <http://www.cbf.org/Document.Doc?id=311> [hereinafter *Fowler Complaint*]; see also Matt Chapman & Jen Duggan, *The Transition Towards the 2016 Lake Champlain TMDL: A Survey of Select Water Quality Litigation in Vermont from 2003–2015*, *infra* pp. 632–36 (discussing similar litigation filed by the Conservation Law Foundation against EPA for its approval of a Lake Champlain Phosphorus TMDL that was alleged to fall short of the requirements of the CWA).

61. *Fowler Complaint*, *supra* note 60, at 26–29.

62. Settlement Agreement at 2–7, *Fowler v. U.S. Env’tl. Prot. Agency*, (D.D.C. May 10, 2010), <http://www.cbf.org/Document.Doc?id=512>.

63. Exec. Order No. 13508, 74 Fed. Reg. 23099, 23,099–100 (May 15, 2009).

64. See *Developing the Chesapeake Bay TMDL*, U.S. ENVTL. PROTECTION AGENCY (2015), <https://www.epa.gov/chesapeake-bay-tmdl/developing-chesapeake-bay-tmdl> (explaining the development of the Chesapeake Bay TMDL).

sufficient to support EPA’s “reasonable assurances” finding.⁶⁵ This finding was required in order for EPA to adopt the nonpoint source load allocations in the Chesapeake Bay TMDL.⁶⁶ EPA adopted the TMDL on December 29, 2010, with a goal set to have the controls in place by 2025 as necessary to achieve the relevant water quality standards.⁶⁷

III. CHESAPEAKE BAY TMDL ACCOUNTABILITY FRAMEWORK

In order to achieve the goal of the CWA and the Chesapeake Bay TMDL—to “restore and maintain the chemical, physical, and biological integrity”⁶⁸ of the Chesapeake Bay and its tributaries—EPA included accountability measures as a central and innovative feature of the TMDL.⁶⁹ EPA intended the accountability measures to drive demonstrable improvements in the quality of the bay’s waters after nearly twenty-seven years since the first Chesapeake Bay agreement.⁷⁰

Including such an accountability framework is also the equivalent of waving a red cape in front of a bull for the national groups advocating on behalf of agriculture and development interests. In fact, it led to a court challenge of the Chesapeake Bay TMDL by those organizations.⁷¹ As discussed in the litigation and surrounding commentary, and depending on whom you ask, the Chesapeake Bay TMDL is either a model of state-federal cooperation and pathway to meaningful action, or a usurpation of state authority and an “EPA land grab.”⁷²

65. *Developing the Chesapeake Bay TMDL*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/chesapeake-bay-tmdl/developing-chesapeake-bay-tmdl> (last updated Oct. 1, 2015) (the timeline at November 4, 2009 explains how the EPA assisted states with WIPs).

66. The “reasonable assurances” requirement is based on EPA guidance documents that, in turn, are premised on CWA requirements that the combination of federally enforceable point-source controls and state implementation of nonpoint-source controls are sufficient to achieve water quality standards. U.S. ENVIRONMENTAL PROTECTION AGENCY GUIDELINES FOR REVIEWING TMDLS UNDER EXISTING REGULATIONS 4–5 (2002); ROBERT PERCIASEPE, U.S. ENVIRONMENTAL PROTECTION AGENCY, NEW POLICIES FOR ESTABLISHING AND IMPLEMENTING TOTAL MAXIMUM DAILY LOADS 5 (1997); 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 122.44(d)(1)(vii)(A), (B).

67. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-2.

68. 33 U.S.C. § 1251(a).

69. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-4 to 7-12.

70. *Developing the Chesapeake Bay TMDL*, *supra* note 65 (timeline at May 12, 2009).

71. *Am. Farm Bureau Fed’n*, 792 F.3d at 281.

72. Timothy B. Wheeler, *CBF, U.S. Justice Ask Supreme Court to Rebuff Challenge to Chesapeake Pollution Diet*, BAY J. (Jan. 20, 2016), http://www.bayjournal.com/article/cbf_u.s._justice_ask_supreme_court_to_rebuff_challenge_to_chesapeake_pollut (noting that the Chesapeake Bay TMDL has been called both an EPA “power grab” and a “model of cooperative federalism”).

The litigation over the Chesapeake Bay TMDL and its accountability framework is not the first time that this set of arguments has been aired in the context of TMDLs. In one of the more notable cases in this category arising in California, landowners frustrated with the cost of complying with water pollution controls on land where they wished to harvest timber challenged the TMDL for the Garcia River, a watershed significantly impacted by nonpoint-source pollution.⁷³ The plaintiffs argued that EPA had “upset the balance of federal-state control established in the CWA by intruding into the state’s traditional control over land use.”⁷⁴ The Ninth Circuit rejected the plaintiffs’ argument as “unfounded” and found the language of the CWA dispositive, which left California the choice of if and how to implement that TMDL.⁷⁵

Another notable battle over the use of TMDLs to create accountability for meaningful water pollution controls of nonpoint sources involved EPA’s effort to adopt TMDL implementation regulations at the end of President Clinton’s administration.⁷⁶ Over strong objections from the same groups that challenged the Chesapeake Bay TMDL and an attempted Congressional effort to stop them, EPA adopted regulations that set deadlines for states to prepare TMDLs and required state implementation plans with “reliable delivery mechanisms.”⁷⁷ When President Bush assumed office, EPA put the TMDL implementation rules that could have jump-started the current TMDL movement on hold and they were never revived.⁷⁸

As a result of EPA’s failure to put TMDL regulations into place, the stubborn challenge of how to ensure that the necessary steps to implement strategies for controlling nonpoint-source pollution has remained. As documented by Professors Houck and Owen in their respective articles critiquing TMDLs, the track record for states implementing the multitudes of TMDLs that have been adopted over the past several decades is checkered.⁷⁹ It is plain that, absent strong federal oversight, states are

73. Pronsolino v. Nastri, 291 F.3d 1123, 1124 (9th Cir. 2002).

74. *Id.* at 1140.

75. *Id.*

76. Oliver A. Houck, *The Clean Water Act Returns (Again): Part I, TMDLs and the Chesapeake Bay*, ENVTL. L. REP. NEWS & ANALYSIS 10,208, 10,222 (2011).

77. *Id.* at 10,210.

78. *Id.*; see also OLIVER A. HOUCK, CLEAN WATER ACT TMDL PROGRAM: LAW, POLICY, AND IMPLEMENTATION 165–69 (2d ed. 2002) (discussing the context surrounding the adoption of the TMDL implementation rules and the immediate aftermath).

79. *The Clean Water Act Returns*, *supra* note 76, at 10,215 (explaining that even though the Chesapeake Bay TMDL process was fully in motion, the bordering state of Virginia and the District of Columbia had yet to join in); Dave Owen, *After the TMDLs*, *infra* pp. 851–55.

unable or unwilling to take the steps required to address the causes of polluted stormwater runoff.⁸⁰

Considering the challenge of the state of implementation, the checkered history of TMDLs, and the particular history of failed voluntary efforts in the Chesapeake Bay watershed, it was no surprise that EPA looked for a way to use the TMDL process to drive stronger and more definite actions by the implementing states and the District of Columbia. It was also no surprise when the American Farm Bureau, National Homebuilders Association, and others challenged the Chesapeake Bay TMDL on January 10, 2011, shortly after EPA adopted it.⁸¹ To understand the legal battle that ensued, it is helpful to understand the basic framework of the Chesapeake Bay TMDL accountability provisions.

There are four elements to the Chesapeake Bay TMDL accountability framework:

- (1) WIPs submitted by each of the states and the District of Columbia describing the steps they would take to reduce pollution into the Bay;⁸²
- (2) interim milestones, set every two years, against which EPA can measure progress toward meeting the actions identified in the WIPs;⁸³
- (3) a tracking and monitoring system by which EPA can assess the states' and District's progress;⁸⁴ and
- (4) consequences in the form of "federal actions if the jurisdictions fail to develop sufficient WIPs, effectively implement their WIPs, or fulfill their 2-year milestones."⁸⁵

The Accountability Framework is intended to ensure that states and the District of Columbia follow through on their plans to improve water quality in Chesapeake Bay.⁸⁶ As described in letters sent by EPA to each of the affected jurisdictions, the Accountability Framework was a necessary precondition to EPA's adoption of the TMDL.⁸⁷ As a result of the

80. *The Clean Water Act Returns*, *supra* note 76, at 10,211–212.

81. *Am. Farm Bureau Fed'n*, 792 F.3d at 281.

82. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-4 to 7-12.

83. *Id.*

84. *Id.*

85. *Id.*

86. *Id.*

87. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-4 to 7-12; Letter of Shawn M. Garvin, Reg'l Adm'r, Region III, Env'tl. Prot. Agency to the Honorable L. Preston Byrant Jr., Sec'y of Nat. Res., Richmond, Va. (Dec. 29, 2009), http://www.epa.gov/sites/production/files/2015-07/documents/bay_letter_1209.pdf.

commitments made by the six states and the District of Columbia, EPA found “reasonable assurances”⁸⁸ that load reductions will be achieved.⁸⁹

In the same manner that the Accountability Framework is central to success in achieving the pollutant load reductions in the TMDL, the WIPs are central to the Accountability Framework.⁹⁰ These WIPs are required to address all sources of the pollutants, including both point sources—municipal sewage treatment plants and operational wastes from industries—and nonpoint sources—polluted stormwater runoff from farms, urban and suburban developments, and streambank and channel erosion.⁹¹ The WIPs required to be submitted as a precondition of EPA’s adoption of the Chesapeake Bay TMDL were required to include “a description of the authorities, actions, and, to the extent possible, control measures that will be implemented to achieve these point source and nonpoint source target loads and TMDL allocations.”⁹² EPA expects the control measures to be enforceable and binding.⁹³ To date, the states and District of Columbia have submitted two sets of Watershed Implementation Plans, described as Phase I and Phase II WIPs, with the second phase plans providing refined pollutant load estimates based on improved scientific modeling and substantially greater detail and clarity about their commitments.⁹⁴

The single most critical feature of whether this accountability framework is successful in terms of achieving water quality goals is the degree to which it results in greater reductions of nonpoint sources of pollution, primarily the stormwater runoff from farms and developed

88. REASONABLE ASSURANCE—ACHIEVING WATER QUALITY STANDARDS THROUGH TMDLS 3 (2011), https://www.eli.org/sites/default/files/docs/Martinez_001.pdf; see also *supra* note 66 (defining reasonable assurance).

89. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-1.

90. *Id.* at 7-6 to 7-8 (explaining that WIPs are a central element of demonstrating reasonable assurance for the Chesapeake Bay TMDL because WIPs serve as a roadmap for how states will meet and maintain the bay’s nutrient and sediment allocations); see also Kari Dolan, *The Importance of Inter-Agency Collaboration and Public Engagement in the Development of the Implementation Plan for the Nonpoint Source-Focused Vermont Lake Champlain Phosphorus TMDL*, *infra* pp. 681-83. (discussing the State of Vermont implementation plan for the Lake Champlain Watershed).

91. *Id.* at 7-2 to 7-3 (“Develop WIP that identify how point and nonpoint source will reduce nitrogen, phosphorus, and sediment loads sufficient to meet . . .”).

92. Letter from William C. Early, Acting Reg’l Adm’r, Region III, Env’tl. Prot. Agency, to the Honorable L. Preston Bryant Jr., Sec’y of Nat. Res., Richmond, Va. 3 (Nov. 4, 2009), http://www.epa.gov/sites/production/files/2015-07/documents/tmdl_implementation_letter_110409.pdf.

93. *Id.* at 16.

94. See *Watershed Implementation Plans*, *supra* note 60 (giving a brief overview of WIPs and providing links to each phase of each state’s WIPs that have been implemented to date).

areas.⁹⁵ As noted above, the different statutory approach in the CWA used for addressing “point” versus “nonpoint” source pollution is a structural challenge that has not been sufficient to address nutrient pollution, much of which is not subject to federally enforceable discharge permits.⁹⁶ EPA has much stronger authority over discharges from point sources, under Section 402,⁹⁷ leaving the work of addressing nonpoint-source pollution to states with little EPA oversight.⁹⁸ Most states have relied on voluntary programs to address stormwater pollution, which makes it difficult for EPA to hold them accountable for results.⁹⁹ The Chesapeake Bay TMDL and associated Accountability Framework navigate this gap between EPA’s authority and the states’ responsibilities. States have the flexibility to design specialized programs to control polluted stormwater runoff if they can demonstrate that these plans will deliver the required pollution reductions.¹⁰⁰

In response, and relying on their own authority, the Chesapeake Bay states have proposed a range of actions. These actions rely on projected reductions of pollution by significantly increasing controls on nonpoint sources, such as stormwater runoff from developed land and farm fields in addition to increasing the stringency of permit limits on point sources.¹⁰¹ In the arena of precipitation-driven pollution—a.k.a. stormwater runoff—the solutions to this problem can be difficult to implement but are simple in concept,¹⁰² often referred to as “best management practices” (“BMPs”). BMPs are ways to reduce the flow of nutrients off of the landscape by implementing practices that slow down stormwater and allow it to seep into the ground or to be filtered by constructed or natural systems.¹⁰³ BMPs include “hard” solutions like stormwater retention ponds and pervious pavement for developed areas like cities and suburbs, but may also include

95. Because regulating point sources in the past has not successfully cut down on stormwater runoff pollution, the accountability framework is intended to fill the gaps in past water pollution reduction plans.

96. 33 U.S.C. § 1342(l)(1)–(2).

97. *Id.* §1311(b)(1)(A).

98. *Id.* § 1329(b), (c).

99. VALENTINA CABRERA-STAGNO, DEVELOPING EFFECTIVE TMDLS: AN EVALUATION OF THE TMDL PROCESS 2 (2007).

100. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-6 to 7-8 (indicating that states can create specialized watershed implementation plans, but they must show reasonable assurance that these plans will meet water quality standards).

101. *Watershed Implementation Plans*, *supra* note 60.

102. *National Menu of Best Management Practices (BMPs) for Stormwater*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu> (last updated Jan. 11, 2016) (explaining how BMPs can be used to address precipitation-driven water pollution and explaining already identified ways to halt such pollution).

103. *Id.*

solutions that rely on protection and restoration of natural and biological systems that help to filter water and absorb pollutants.¹⁰⁴

In that vein, and as an intriguing and hopeful aside, many communities and businesses are increasingly investing in sets of BMPs known as “green stormwater infrastructure” and “low-impact development” as a means of achieving the pollution reduction targets in the TMDL.¹⁰⁵ These practices include modifying rooftops to be “green” or “blue,” planting vegetation in swales and ditches, and creating rain gardens and artificial wetlands.¹⁰⁶ Where possible, communities are also designing, and re-designing, developed areas using a concept known as low-impact development, in which sites are built to maintain and enhance the natural hydrology in the affected watershed.¹⁰⁷

The same concepts apply to farm pollution. Farmers are increasing the use of practices available to slow stormwater runoff and keep nutrients and soil on the land where they are most useful to farm production.¹⁰⁸ Farmers across the Chesapeake Bay implement many practices promoted by USDA: planting cover crops to avoid periods of bare soil; using conservation tillage to minimize the disturbance of soil; using grassed filter strips; and practicing contour cropping to provide vegetation that filters surface runoff.¹⁰⁹ In all cases, the goal is to keep water, soil, and nutrients on the land and out of our rivers and streams. While many of these practices have been known for years, the combination of increased awareness and the

104. See generally MARIA CAHILL ET AL., POROUS PAVEMENT, <http://seagrant.oregonstate.edu/sites/seagrant.oregonstate.edu/files/sppubs/onlinepubs/g11002-lid-porous-pavement.pdf> (explaining what porous pavement is and how it manages stormwater runoff); see also DENNIS JURRIES, OR. DEP'T OF ENVTL. QUALITY, BIOFILTERS (BIOSWALES, VEGETATIVE BUFFERS, AND CONSTRUCTED WETLANDS) FOR STORM WATER DISCHARGE POLLUTION REMOVAL 3–11 (2003), <http://www.deq.state.or.us/wq/stormwater/docs/nwr/biofilters.pdf> (explaining how natural biological preservation and reconstruction filters pollutants from stormwater runoff).

105. *Green Infrastructure*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/green-infrastructure> (last updated Mar. 10, 2016) (providing links to learning material about green infrastructure and providing information on designing and building green infrastructure); see *Green Street Project*, TOWN OF EDMONSTON, <http://www.edmonstonmd.gov/greenstreetproject.html> (last visited Mar. 13, 2016) (serving as an example of a community within Maryland that is using green water infrastructure to reach reduce pollution).

106. See *What is Green Infrastructure*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/green-infrastructure/what-green-infrastructure> (last updated Nov. 2, 2015) (listing and explaining each type of green infrastructure, how they work, and how they can be created).

107. See *Stormwater Strategies, Community Responses to Runoff Pollution*, NAT. RES. DEF. COUNCIL (last visited Mar. 13, 2016) (identifying what low impact development is, explaining why it is important, especially in already urbanized communities, and providing examples of communities that are already implementing low impact developments).

108. See U.S. DEP'T OF AGRIC., BEST MANAGEMENT PRACTICES TO MINIMIZE AGRICULTURAL PHOSPHORUS IMPACTS ON WATER QUALITY 4 (2006) (providing a table for BMPs in agriculture).

109. *Id.*

pressure of state and federal attention has increased the rate of adoption by farmers.¹¹⁰ The WIPs adopted by the Chesapeake Bay watershed states include commitments to more aggressively promote and require the greater use of a range of agricultural BMPs throughout the watershed.¹¹¹

To ensure that these practices are actually adopted and maintained (and that the 2010 Chesapeake TMDL does not suffer the same fate as past efforts with ambitious long-term goals that did little to drive near-term actions), the accountability framework includes the requirement that the states and the District of Columbia track progress of the TMDL goals in two-year increments.¹¹² EPA expects these milestones to ensure implementation of the WIPs "by identifying specific near-term pollutant reduction controls and a schedule."¹¹³ Further, the tracking and accountability system will show if the milestones are met and EPA will evaluate these milestones to determine if they are adequate to reach pollution reduction goals.¹¹⁴

If progress is insufficient, EPA may take "actions to ensure pollution reductions."¹¹⁵ For instance, EPA may use its authority to increase the stringency of pollution limits on point sources of pollution by adopting more stringent effluent limitations on sewage treatment plants, urban stormwater discharges, and large feedlot operations.¹¹⁶ Other consequences include withholding or conditioning federal grants, increasing federal enforcement against polluters, and "more tightly overseeing states' pollution control" strategies.¹¹⁷

110. B. L. Benham et al., *Comparison of Best Management Practice Adoption Between Virginia's Chesapeake Bay Basin and Southern Rivers Watersheds*, 45 J. EXTENSION 1 (2007), <http://www.joe.org/joe/2007april/rb3.php>.

111. DEL. CHESAPEAKE INTERAGENCY WORKGROUP, DELAWARE'S PHASE I CHESAPEAKE BAY WATERSHED IMPLEMENTATION PLAN 132-43 (2010), http://www.dnrec.delaware.gov/swc/wa/Documents/ChesapeakePhaseIWIP/DE_PHASE1_WIPwAppendices_11292010.pdf; MD. DEP'T NAT. RES., MARYLAND'S PHASE I WATERSHED IMPLEMENTATION PLAN FOR THE CHESAPEAKE BAY TMDL 5-14 to 5-17 (2010), http://www.mde.state.md.us/programs/Water/TMDL/Documents/www.mde.state.md.us/assets/document/MD_Phase_I_Plan_12_03_2010_Submitted_Final.pdf; N.Y. STATE DEP'T OF ENVTL. CONSERVATION, FINAL PHASE I NUTRIENT AND SEDIMENT WATER QUALITY IMPROVEMENT AND PROTECTION PLAN FOR NEW YORK SUSQUEHANNA AND CHEMUNG RIVER BASINS AND CHESAPEAKE BAY TOTAL MAXIMUM DAILY LOAD 66-72 (2010), http://www.dec.ny.gov/docs/water_pdf/finalphaseiwip.pdf.

112. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-6 to 7-8 (outlining EPA's expectations for each bay jurisdiction under the accountability framework and how the jurisdictions are expected to measure progress every two years).

113. *Id.* at ES-8.

114. *Id.* at 7-10 to 7-11.

115. *Id.* at ES-8.

116. *Id.* at 7-12.

117. *Am. Farm Bureau Fed'n*, 792 F.3d at 303; Letter of Shawn M. Garvin, *supra* note 87, 3-4 (listing potential actions that EPA can take to ensure jurisdictions "develop and implement appropriate Watershed Implementation Plans").

Further, this framework includes opportunities to adjust state plans as they learn what is or is not working in each phase of implementation.¹¹⁸ In EPA's words, the accountability framework "incorporates an adaptive management approach that documents implementation actions, assesses progress, and determines the need for alternative management measures based on the feedback of the accountability framework."¹¹⁹ EPA established the legal foundation of the Chesapeake Bay TMDL upon the inclusion of this adaptive-management feature of the TMDL and the premise that, while motivated by the need to meet the reasonable-assurances standard, the states and the District of Columbia voluntarily adopted their WIPs.¹²⁰ It was this premise that the American Farm Bureau and other plaintiffs challenged.¹²¹

IV. AMERICAN FARM BUREAU AND NATIONAL HOMEBUILDERS' CHALLENGE

On January 10, 2011, less than two weeks after EPA adopted the Chesapeake Bay TMDL, the American Farm Bureau Federation and the National Association of Homebuilders, among others (collectively referred to as the "Farm Bureau"), challenged the TMDL as a violation of the CWA and also argued that EPA had exceeded the Constitutional limits of its authority.¹²² None of the affected states or the District of Columbia joined the Farm Bureau's challenge.¹²³ The U.S. District Court for the Middle District of Pennsylvania, Judge Sylvia Rambo, found that EPA's approach was consistent with the CWA and granted summary judgment for EPA.¹²⁴ The Farm Bureau appealed to the United States Third Circuit Court of Appeals.¹²⁵

In their appeal, the Farm Bureau argued that EPA exceeded its CWA authority by setting deadlines and allocations within the TMDL and by requiring the states to provide reasonable assurance that the WIPs would

118. CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16, at 7-8 to 7-12.

119. *Id.* at 7-2 to 7-3.

120. *Watershed Implementation Plans*, *supra* note 58; *Am. Farm Bureau Fed'n*, 792 F.3d at 308.

121. *Am. Farm Bureau Fed'n*, 792 F.3d at 287.

122. *Am. Farm Bureau Fed'n v. U.S. Envtl. Prot. Agency*, 984 F. Supp. 2d 289, 294-95 (M.D. Penn. 2013).

123. Though West Virginia joined in an amicus brief in support of the American Farm Bureau in the Third Circuit appeal. Brief of the States of West Virginia et al. as Amici Curiae in Support of Reversal, *Am. Farm Bureau Fed'n*, 792 F.3d 281.

124. *Am. Farm Bureau Fed'n*, 984 F. Supp. 2d at 334.

125. *Am. Farm Bureau Fed'n*, 792 F.3d at 281.

work.¹²⁶ Noting that the term “total load” was “just a number,”¹²⁷ the Farm Bureau argued that EPA’s interpretation of Section 303(d) co-opted state authority and interfered in the states’ traditional authority to regulate land use.¹²⁸ The Third Circuit, made up of a panel of Judges Ambro, Scirica, and Roth, in a decision authored by Judge Ambro, unanimously disagreed.¹²⁹ The Farm Bureau and other plaintiffs then filed a petition for certiorari with the United States Supreme Court, which was denied.¹³⁰

A. EPA’s Authority Under the Clean Water Act

At the outset, the Third Circuit tackled the different uses of the term “TMDL” by the parties.¹³¹ As has become common among those working to implement the CWA, EPA’s usage of the term “TMDL” is typically intended to encompass a comprehensive framework for pollution reduction for impaired waters—a concept that includes the various implementation documents associated with the TMDL, regulatory requirements enforceable under EPA’s NPDES program, and requirements established under state or local law.¹³² In contrast, the Farm Bureau argued, at least in part, that the development of a TMDL as used in Section 303(d) of the CWA is just a mathematical exercise to determine what level of pollution a water body can assimilate without violating water quality standards and nothing more.¹³³

The court agreed with EPA that while TMDLs are not self-executing, they “serve as the cornerstones for pollution-reduction plans that do create enforceable rights and obligations.”¹³⁴ Rejecting the Farm Bureau’s argument that the term “total maximum daily load” is unambiguous, the Third Circuit looked to other federal court decisions,¹³⁵ the language of Section 303(d), and the goals and objectives of the CWA to find that the TMDL provision is ambiguous and that EPA therefore had the authority to

126. *Id.* at 292.

127. *Id.* at 297.

128. *Id.* at 301–02.

129. Lawrence R. Liebesman & Julie B. Kuspa, *Third Circuit Federal Appellate Court Upholds EPA’s Chesapeake Bay TMDL*, MASS. STATE BAY ASS’N (Aug. 15, 2015), http://www.msba.org/Bar_Bulletin/2015/08_-_August/Third_Circuit_Federal_Appellate_Court_Upholds_EPA_s_Chesapeake_Bay_TMDL.aspx.

130. *Am. Farm Bureau Fed’n*, 729 F.3d 281, *cert. denied*, 136 S. Ct. 1246 (2016).

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

132. *Id.*

133. *Id.*

134. *Id.* at 291.

135. *Id.* at 301–302.

interpret and implement that provision in a reasonable and legitimate manner.¹³⁶

Analyzing the language of Section 303(d) in light of the goals of the CWA, the Third Circuit panel rejected the Farm Bureau's arguments that EPA lacked authority to adopt the TMDL.¹³⁷ Specifically, the court held that EPA may include in TMDLs allocations of permissible levels of pollutants among the various sources and set target dates for achieving the necessary pollutant reductions.¹³⁸ The court also held that EPA was authorized, using the reasonable-assurances standard, to require commitments from the affected jurisdictions to implement plans for meeting those targets.¹³⁹ The court reasoned that because the CWA expects a partnership between states and federal government "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters,"¹⁴⁰ EPA's approach using "allocations, target dates, and reasonable assurances" in coordination with the states was allowable.¹⁴¹

B. Traditional State Power to Regulate Land Use

The Third Circuit also rejected the Farm Bureau's argument that EPA's approval of the Chesapeake Bay TMDL encroaches on the traditional role of state and local governments.¹⁴² Specifically, the Farm Bureau argued that EPA overstepped its authority by interpreting the CWA in a manner that co-opted traditional state power to regulate land use.¹⁴³ The court rejected the Farm Bureau's argument and explained that although the TMDL's requirements could appear to effect land use, those provisions were "either explicitly allowed by federal law or too generalized to supplant state zoning powers in any extraordinary way."¹⁴⁴

Relying on the structure of the TMDL, in which the states voluntarily adopted the WIPs as a means of ensuring federal funding and avoiding certain consequences, the court found that EPA gave "the states flexibility in achieving the limits EPA set—preserving state autonomy in land-use and zoning."¹⁴⁵ For this reason, the panel concluded that "the TMDL does not

136. *Id.* at 296; *see* *Chevron, U.S., Inc. v. Nat. Res. Council*, 467 U.S. 837 (1984) (recognizing that deference must be given to the agency if a term in a statute is ambiguous).

137. *Am. Farm Bureau Fed'n*, 729 F.3d at 299–300.

138. *Id.*

139. *Id.*

140. 33 U.S.C. § 1251(a).

141. *Am. Farm Bureau Fed'n*, 729 F.3d at 299.

142. *Id.* at 304.

143. *Id.* at 302.

144. *Id.*

145. *Id.* at 303.

prescribe land use rules that excessively intrude on traditional state authority.”¹⁴⁶ Further, the court held that the provisions of the TMDLs accountability framework, specifically EPA actions used as backstops in the event of failure of the states to implement their WIPs, are “plainly within the EPA’s authority.”¹⁴⁷

C. Constitutional Questions

The Third Circuit also dispensed with the Farm Bureau’s argument that EPA’s exercise of CWA authority in adopting the Chesapeake Bay TMDL exceeded the bounds of its authority under the Commerce Clause.¹⁴⁸ The court noted the long-standing recognition of federal authority to regulate interstate waterways and concluded that there is no serious question whether Chesapeake Bay is a channel of interstate commerce.¹⁴⁹ As the court pointed out, Chesapeake Bay produces large amounts of seafood per year, many ships navigate the bay to reach port towns, and Chesapeake Bay’s economic value is estimated at more than one trillion dollars.¹⁵⁰ Further, distinguishing the U.S. Supreme Court decisions relating to limits on the reach of CWA authority over certain waters, namely *SWANCC* and *Rapanos*, the Third Circuit noted that “we are not concerned here with a small intrastate area of wetland; we are dealing with North America’s largest estuary.”¹⁵¹

D. EPA’s Legitimate Policy Choice

Applying *Chevron* deference, the Third Circuit held that EPA’s interpretation of CWA Section 303(d) was reasonable in light of the gap left by Congress and upheld the Chesapeake Bay TMDL as “a legitimate policy choice by the agency in administering a less-than-clear statute.”¹⁵² The court reasoned that the pollution limits and allocations for states to regulate water pollution found in the TMDL are necessary to achieve the goals of the CWA.¹⁵³

146. *Id.* at 304.

147. *Id.* at 303–04.

148. *Id.* at 306.

149. *Id.* at 304–05.

150. *Id.* at 305.

151. *Id.* at 306; *cf.* *Rapanos v. United States*, 126 S. Ct. 2208 (2006), and *Solid Waste Agency v. U.S. Army Corps of Eng’rs*, 121 S. Ct. 675 (2001) (explaining the limited reach of the CWA, of which the Act could not apply in these cases because these cases involved small intrastate area of wetland).

152. *Am. Farm Bureau Fed’n*, 792 F.3d at 309.

153. *Id.* at 306–07.

The court rejected Farm Bureau's claims that Chesapeake Bay would be restored, independent of EPA engagement. With obvious incredulity, the Third Circuit states that this "contention defies common sense and experience"¹⁵⁴ in light of the fact that in 2010, 25 years past the date by which the CWA sought to eliminate water pollution, "62% of the Bay had insufficient oxygen to support aquatic life, and only 18% of the Bay had acceptable water clarity."¹⁵⁵

The court concludes its opinion by noting, with approval, the importance of allowing EPA "to coordinate among all the competing possible uses of the resources that affect the Bay."¹⁵⁶ Relying on the uncontroverted fact that a substantial portion of the pollutant load into Chesapeake Bay is the result of nonpoint source pollution in the form of runoff from farms and cities, the Court notes the need to avoid limiting EPA's authority in a manner that would "shift the burden of meeting water quality standards to point source polluters" when "regulating them alone would not result in a clean Bay."¹⁵⁷

V. PETITION FOR CERTIORARI TO THE U.S. SUPREME COURT

On February 29, 2016, with Justice Scalia's seat on the Court still draped in black following his death two weeks earlier, the U.S. Supreme Court denied the Farm Bureau's request to hear an appeal of the Third Circuit's decision.¹⁵⁸ This result is not a surprise given that there was no split among the circuit courts on the issues raised, the lack of any obvious error of law in the Third Circuit's decision, and the absence of any real constitutional issues. The Farm Bureau attempted to manufacture a circuit split by arguing that the Third Circuit's decision was inconsistent with the Eleventh Circuit decision in *Sierra Club v. Meiburg*.¹⁵⁹ In *Meiburg*, the Eleventh Circuit answered, in the negative, a different question: whether EPA could be required by a federal court to develop a TMDL implementation plan.¹⁶⁰ In *American Farm Bureau v. EPA*, however, the Third Circuit never suggested that EPA could or should develop the implementation plans for the states. That authority was left to the states themselves by the TMDL being challenged and so the parties never argued

154. *Id.* at 309.

155. *Id.*

156. *Id.*

157. *Id.*

158. *Am. Farm Bureau Fed'n*, 729 F.3d 281, *cert. denied*, 136 S. Ct. 1246 (2016).

159. Petition for Writ of Certiorari at ii, *Am. Farm Bureau Fed'n*, 729 F.3d 281; *Sierra Club v. Meiburg*, 296 F.3d 1021 (2002).

160. *Meiburg*, 296 F.3d at 1023.

and the court never decided whether EPA could develop its own implementation plan.

The Supreme Court may have considered it relevant that none of the affected jurisdictions (the six States or the District of Columbia) supported the Farm Bureau’s Petition for Certiorari.¹⁶¹ Those states and the District are fully engaged in implementing the Chesapeake Bay TMDL,¹⁶² were not parties to the original challenge by the Farm Bureau,¹⁶³ and likely saw little to gain from the delay and confusion that would result from further appeal.

VI. LAKE CHAMPLAIN TMDL AND ACCOUNTABILITY FRAMEWORK

EPA and the State of Vermont can take heart from the Third Circuit Decision in *American Farm Bureau v. EPA* because the Lake Champlain Phosphorus TMDL adopted by EPA on June 17, 2016, includes an approach that follows the same basic roadmap used in Chesapeake Bay.¹⁶⁴ As discussed in several of the articles in this issue of the *Vermont Journal of Environmental Law*, the Lake Champlain Phosphorus TMDL includes the same three elements at issue in the Chesapeake Bay TMDL litigation: (1) pollution allocations among the various sources; (2) a timetable for achieving the required reductions in pollutant load; and (3) reliance upon phased implementation plans developed by the State of Vermont to address both point and nonpoint sources of pollution as the basis of EPA’s reasonable assurances finding.¹⁶⁵ Further, the Lake Champlain TMDL includes a similar accountability framework with milestones and EPA backstops in the event that Vermont does not implement its plan.¹⁶⁶

161. Petition for Writ of Certiorari at ii, *Am. Farm Bureau Fed’n*, 729 F.3d 281; *Sierra Club v. Meiburg*, 296 F.3d 1021 (2002). (indicating the parties who joined the petition for writ of certiorari).

162. See *Watershed Implementation Plans*, *supra* note 58 (showing all seven jurisdictions’ Watershed Implementation Plans).

163. *Am. Farm Bureau Fed’n*, 984 F. Supp. 2d at 294–95.

164. Compare PHOSPHORUS TMDLS FOR VERMONT SEGMENTS OF LAKE CHAMPLAIN, *supra* note 21, with CHESAPEAKE BAY TMDL FOR NITROGEN, PHOSPHORUS, AND SEDIMENT, *supra* note 16.

165. See generally PHOSPHORUS TMDLS FOR VERMONT SEGMENTS OF LAKE CHAMPLAIN, *supra* note 21, at chs. 6–8 (chapter six discusses establishing allocations, chapter seven lays out the Reasonable Assurance and Accountability Framework, and chapter eight explains the implementation process).

166. Kari Dolan, *The Importance of Inter-Agency Collaboration and Public Engagement in the Development of the Implementation Plan for the Nonpoint Source-Focused Vermont Lake Champlain Phosphorus TMDL*, *infra* pp. 683–84.; Matt Chapman & Jen Duggan, *The Transition Towards the 2016 Lake Champlain TMDL: A Survey of Select Water Quality Litigation in Vermont from 2003–2015*, *infra* pp. 646–48 (discussing the weaknesses of the 2002 Lake Champlain TMDL that were addressed in the 2016 TMDL).

CONCLUSION

The Third Circuit decision in *American Farm Bureau v. EPA*, upholding EPA's authority to issue the Chesapeake Bay TMDL, provides a strong legal foundation for EPA and states to work together to develop plans for controlling all sources of pollution, especially nonpoint sources, in the many large, complex, and impaired watersheds across the country. From the Great Lakes to the Gulf of Mexico and from the Long Island Sound to the Puget Sound, the nation, the states, and many communities have a significant stake in finding collaborative solutions so that we can recover the full ecological and economic health of our most precious waters and their watersheds.

While the *American Farm Bureau v. EPA* litigation is over, the fight over the role of the CWA in addressing polluted runoff from farms and development is not. The President of the American Farm Bureau, Zippy Duvall, released a statement in response to the U.S. Supreme Court's denial of his organization's petition for certiorari:

EPA has asserted the power to sit as a federal zoning board, dictating which land can be farmed and where homes, roads[,] and schools can be built. We remain firm in opposing this unlawful expansion of EPA's power. We will closely monitor the agency's actions in connection with the Bay blueprint, as well as any efforts to impose similar mandates in other areas. This lawsuit has ended, but the larger battle over the scope of EPA's power is not over.¹⁶⁷

Will Baker, President of the Chesapeake Bay Foundation, offers a less combative tone:

We have consistently urged partnership[,] not litigation, and now we hope to achieve it. Let's show the world that the polarization[,] which poisons so much of our society today[,] can be rejected here on the Bay. Our collective and collegial efforts to Save the Bay, a true national treasure, can be a model for other waters worldwide.¹⁶⁸

167. Statement by Zippy Duvall, President, American Farm Bureau Federation, Regarding Supreme Court Petition for Certiorari, VOICE AGRIC.: AM. FARM BUREAU FED'N (Feb. 29, 2016), http://www.fb.org/newsroom/news_article/405/.

168. Press Release, Chesapeake Bay Found. Supreme Court Allows Chesapeake Bay Blueprint to Stand (Feb. 29, 2016), <http://www.cbf.org/news-media/newsroom/fed/2016/02/29/supreme-court-allows-chesapeake-bay-blueprint-to-stand>.

Despite the likelihood of future lawsuits and ongoing Congressional pressure, EPA should franchise the approach taken in the Chesapeake Bay watershed in order to bend the curve of nutrient pollution downward by creating accountability in programs to control polluted stormwater runoff. For those who care about restoring Lake Champlain, the saga of the efforts to restore Chesapeake Bay have particular relevance and is not just instructive, but inspirational.