

**UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA**

**AMERICAN FARM BUREAU
FEDERATION, PENNSYLVANIA
FARM BUREAU, THE FERTILIZER
INSTITUTE, NATIONAL PORK
PRODUCERS COUNCIL, NATIONAL
CORN GROWERS ASSOCIATION,
NATIONAL CHICKEN COUNCIL,
U.S. POULTRY & EGG ASSOCIATION,
and NATIONAL TURKEY
FEDERATION,**

Plaintiffs,

v.

**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY,**

Defendant.

Case No. 11-cv-00067-SHR

FIRST AMENDED COMPLAINT

Plaintiffs American Farm Bureau Federation, Pennsylvania Farm Bureau,
The Fertilizer Institute, National Pork Producers Council, National Corn Growers

Association, National Chicken Council, U.S. Poultry & Egg Association, and National Turkey Federation (collectively, “Plaintiffs”) bring this action seeking declaratory and injunctive relief against Defendant United States Environmental Protection Agency (“EPA”) and allege as follows:

INTRODUCTION

1. Plaintiffs challenge EPA’s final action of promulgating the Final Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment, signed by the EPA Regions II and III Regional Administrators on December 29, 2010 (“Final TMDL”). *See* 76 Fed. Reg. 549 (Jan. 5, 2011) (notice of availability of the Final TMDL); *available at* <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/tmdlexec.html>. Although the lawful purpose of the Final TMDL is informational – to identify the maximum amount of nitrogen, phosphorus, and sediment that would achieve water quality standards in the Chesapeake Bay – this EPA action is not limited to this lawful purpose. The Final TMDL assigns contributions of these substances to local waters among farms, cities, and businesses, as well as residential, agricultural, and undeveloped lands throughout the vast Chesapeake Bay watershed – in Virginia, West Virginia, Maryland, Delaware, Pennsylvania, New York, and the District of Columbia (collectively the “watershed jurisdictions”) – a 64,000-square-mile area with a population of almost 17 million people.

2. EPA used an unprecedented process to micromanage waterways from Virginia to New York through the assignment of highly specific pollutant loads. That process unlawfully circumvented the Clean Water Act procedures that give primary authority to the states to protect water quality. States can do so by establishing (a) water quality standards, then (b) (for waters that do not meet those standards) “total maximum daily loads” (“TMDLs”) representing the levels of pollutants the water body can receive and still achieve those standards, and finally (c) a planning process to work toward achieving standards through practicable management practices for “nonpoint” sources and through individual permits limiting discharges from point sources.

3. The Final TMDL is fatally flawed in several critical respects. First, EPA has exceeded its authority under the Clean Water Act by (a) allocating pollutant loads among sources in a TMDL, (b) basing those allocations on the wrong water quality standards, and (c) using extra-statutory mechanisms to impose those load allocations. Second, the assigned pollutant allocations are based on erroneous information, particularly with respect to agriculture, which was fed into computer models that are unsuitable for deriving such load allocations – even with *accurate* information. Finally, during the comment period, the public did not receive adequate access to the information needed to comment effectively on the modeling results and the assumptions in the Final TMDL.

4. For each of the reasons, this Court should declare that the assigned pollutant loads are not legally enforceable, and it should vacate the Final TMDL.

JURISDICTION AND VENUE

5. This Court has jurisdiction over this action under 28 U.S.C. § 1331 because the claims arise under the laws of the United States, and under the Administrative Procedure Act, 5 U.S.C. § 702, providing for judicial review of final agency action. The Court can grant declaratory and injunctive relief under 28 U.S.C. § 2201 (declaratory judgment), 28 U.S.C. § 2202 (injunctive relief), and under 5 U.S.C. §§ 701-706 for violations of the Administrative Procedure Act and the Clean Water Act.

6. Venue is proper in this judicial district under 28 U.S.C. § 1391(e) because EPA is an agency of the United States, Plaintiff Pennsylvania Farm Bureau resides in this district, and certain of Plaintiffs' members affected by the Final TMDL reside in this judicial district.

PARTIES

7. Plaintiff American Farm Bureau Federation is a voluntary general farm organization formed in 1919 to protect, promote, and represent the business, economic, social, and educational interests of American farmers. The American Farm Bureau Federation represents more than 6.2 million member families through member organizations in all fifty states and Puerto Rico. These member

organizations include the Pennsylvania Farm Bureau. Many of the American Farm Bureau Federation member families own and operate farms that produce the row crops, livestock, and poultry that provide safe and affordable food for Americans and a growing global population.

8. Some of these farms are located within the 64,000-square-mile Chesapeake Bay watershed and are livestock or poultry operations that hold (or will be required to obtain) individual or general permits issued pursuant to Clean Water Act Section 402, 33 U.S.C. § 1342, for point source discharges into these waters.¹ The terms and conditions of those permits will be improperly and adversely affected by the Final TMDL, and new permits will be more difficult to obtain as a result of the Final TMDL. As a result, the American Farm Bureau Federation member families are significantly and adversely affected by EPA's action, which will limit their ability to obtain Section 402 permitting for new or expanded operations and will require more stringent permit limitations for nitrogen, phosphorus, and sediment.

¹ The Clean Water Act and EPA rules generally prohibit discharges from livestock and poultry operations that qualify as "concentrated animal feeding operations" or "CAFOs," with the exception of discharges caused by certain extreme rainfall and authorized under a Section 402 permit. Most terms and conditions of such permits are designed to prevent any discharge from occurring.

9. In addition, some of American Farm Bureau Federation's member families operate farms (livestock, poultry, or row crop production) that are not currently regulated under the Clean Water Act, but are subject to regulatory requirements for nutrients under state law, or participate in nutrient management programs supported by the state departments of agriculture or by the U.S. Department of Agriculture, or undertake voluntary action to control runoff of nutrients and sediments without participating in or reporting to a formal state or federal program. These farms will be directly and adversely affected by the Final TMDL, which assigns pollutant loadings both for regulated "point sources" and for unregulated "nonpoint source" operations.

10. During the public comment period for the challenged action, the American Farm Bureau Federation provided detailed comments on EPA's Draft Chesapeake Bay Total Maximum Daily Load ("Draft TMDL").

11. Plaintiff Pennsylvania Farm Bureau is a general farm organization that has provided legislative support, information, and services to Pennsylvania's farmers and rural families since 1950. Some of the Pennsylvania Farm Bureau members have farms located within the Chesapeake Bay watershed and will be subject to the same Clean Water Act permitting and regulatory impact from the Final TMDL as described in ¶¶ 8-9 above. The Pennsylvania Farm Bureau also provided comments to EPA on the Draft TMDL.

12. Plaintiff The Fertilizer Institute represents the nation's fertilizer industry including producers, importers, retailers, wholesalers and companies that provides services to the fertilizer industry. Many of The Fertilizer Institute's members hold permits issued pursuant to Clean Water Act Section 402, 33 U.S.C. § 1342, for point source or stormwater discharges into the Chesapeake Bay watershed that would be affected by the TMDL developed by EPA. The Fertilizer Institute members may also be negatively impacted by EPA or states imposing strict controls on fertilizer use in agricultural, urban, or suburban settings, which may result in reduced fertilizer sales and reduced crop yields for producers. During the public comment period for the challenged action, The Fertilizer Institute provided detailed comments to EPA on the Draft TMDL.

13. Plaintiff National Pork Producers Council is a non-profit trade association representing the interests of pork producers throughout the United States. National Pork Producers Council serves as an advocate for reasonable legislation and regulations, develops revenue and market opportunities, and protects the livelihood of the nation's 67,000 pork producers, which it represents through forty-three affiliated state associations. Its mission includes representing pork producers in administrative and judicial proceedings involving national regulations and other government actions that affect the production of pork in the United States. Some of the National Pork Producers Council members are located

within the Chesapeake Bay watershed and will be subject to the same Clean Water Act permitting and regulatory impact from the Final TMDL as described in ¶¶ 8-9 above. During the public comment period for the challenged action, National Pork Producers Council provided detailed comments to EPA on the Draft TMDL.

14. National Corn Growers Association is a non-profit trade association that represents 35,000 corn farmers nationwide and the interests of more than 300,000 growers who contribute through corn checkoff programs in their states. National Corn Growers Association and its 48 affiliated state associations and checkoff organizations work together to create and increase opportunities for their members and their industry. National Corn Growers Association represents its members' concerns in national legislative, judicial and regulatory agencies' decisions affecting agriculture. Some of the National Corn Growers Association members are located within the Chesapeake Bay watershed and will be subject to the same Clean Water Act permitting and regulatory impact from the Final TMDL as described in ¶¶ 8-9 above. During the public comment period for the challenged action, National Corn Growers Association provided detailed comments to EPA on the Draft TMDL.

15. Plaintiff National Chicken Council is a non-profit trade association representing companies that produce and process over ninety-five percent of the broiler/fryer chickens marketed in the United States. National Chicken Council

promotes the production, marketing and consumption of safe, wholesome and nutritious chicken products both domestically and internationally. National Chicken Council advocates on behalf of its members with regard to the development and implementation of federal and state programs and regulations that affect the chicken industry. Some of the National Chicken Council members are located within the Chesapeake Bay watershed and will be subject to the same Clean Water Act permitting and regulatory impact from the Final TMDL as described in ¶¶ 8-9 above. During the public comment period for the challenged action, National Chicken Council provided detailed comments to EPA on the Draft TMDL.

16. Plaintiff U.S. Poultry & Egg Association is a non-profit trade association and the world's largest poultry organization, whose membership includes producers of broilers, turkeys, ducks, eggs and breeding stock, as well as allied companies. U.S. Poultry & Egg Association focuses on research and education, as well as communications to keep members of the poultry industry current on important issues. Some of the U.S. Poultry & Egg Association members are located within the Chesapeake Bay watershed and will be subject to the same Clean Water Act permitting and regulatory impact from the Final TMDL as described in ¶¶ 8-9 above. During the public comment period for the challenged

action, U.S. Poultry & Egg Association provided detailed comments to EPA on the Draft TMDL.

17. Plaintiff National Turkey Federation is a non-profit trade association that serves as the national advocate for all segments of the turkey industry, conducting activities that increase demand for its members' products by protecting and enhancing their ability to profitably provide wholesome, high-quality, nutritious products. National Turkey Federation represents growers, processors, hatchers, breeders, distributors, allied services and state associations. In addition to providing other services, National Turkey Federation represents its members' interests in legislative and regulatory affairs. Some of the National Turkey Federation members are located within the Chesapeake Bay watershed and will be subject to the same Clean Water Act permitting and regulatory impact from the Final TMDL as described in ¶¶ 8-9 above. During the public comment period for the challenged action, National Turkey Federation provided detailed comments to EPA on the Draft TMDL.

18. Defendant EPA is the federal agency charged with the administration and enforcement of the Clean Water Act, in accordance with the specific delegations of authority from Congress contained in that statute. EPA is headquartered in Washington, D.C.

STATUTORY AND REGULATORY FRAMEWORK

19. Total maximum daily loads (“TMDLs”) are one element of a detailed statutory and regulatory framework under the Clean Water Act, which prescribes the following series of actions that are described in greater detail below: (i) establishment of water quality standards by the states under Section 303(c); (ii) identification by the states of certain waters that are not meeting water quality standards under Section 303(d) (commonly called “impaired” waters); (iii) calculation by the states of a total maximum daily pollutant load – a TMDL – for such impaired waters under Section 303(d); and (iv) a “continuous planning process” under Section 303(e) to generate plans for implementation of water quality standards by the states.

20. Federal involvement in the above scheme is extremely limited. EPA has statutory authority to act directly by disapproving or objecting to state action or inaction; EPA has no authority to develop a state’s planning process or implementation plans.

A. Overview of Clean Water Act Regulation

21. The Clean Water Act divides sources of pollutants to waterways into two major categories: “point sources” and “nonpoint sources.” “Point source” is defined at 33 U.S.C. § 1362(14) to mean “any discernible, confined, and discrete conveyance including . . . any pipe, ditch, channel, tunnel, [or] conduit . . . from

which pollutants are or may be discharged.” The term also includes those livestock and poultry operations that qualify under EPA regulations as a “concentrated animal feeding operation.” Congress specifically excluded “agricultural stormwater discharges and return flows from irrigated agriculture” from the definition of point source. *Id.*

22. All pollutant discharges from a point source to waters of the United States² are prohibited under the Clean Water Act unless otherwise authorized under several sections of the Act. One primary way in which discharges are authorized is under a Section 402 permit, known as a National Pollutant Discharge Elimination System (“NPDES”) permit.³ *Id.* § 1342. The NPDES permitting system imposes limits on such discharges based on the application of technology, or the need to achieve water quality standards, whichever is more stringent. *Id.* §§ 1311(b), 1312.

23. States assume primary responsibility for administration and enforcement of the NPDES permitting program following EPA approval of a

² The Clean Water Act focuses on “navigable waters”, defined by statute as “waters of the United States.” 33 U.S.C. § 1362(7). References herein to “waters” are to such “waters of the United States” within the scope of the Act’s jurisdiction.

³ Many non-industrial “stormwater” discharges are authorized under Section 402 even without a permit, unless EPA or the state permitting agency “designates” such a discharge for permitting. *See* 33 U.S.C. § 1342(p); 40 C.F.R. § 122.26(a)(1)(v).

state's proposed program. *Id.* §§ 1342(b), 1342(c)(1). Among other things, state NPDES programs must allow for downstream states whose waters may be affected by the issuance of a permit to submit written recommendations concerning the permit application to the permitting state and to EPA. *Id.* § 1342(b)(3), (5). If the permitting state rejects any such recommendations, it must explain its reasons for doing so in writing. *Id.*

24. EPA retains authority, in specified circumstances, to object to a particular NPDES permit that authorizes discharges to waters. *Id.* § 1342(d); 40 C.F.R. § 123.44. For example, EPA may object to the issuance of a permit by an upstream state if EPA determines that discharges under the permit will cause or contribute or have the reasonable potential to cause or contribute to an excursion of any state water quality standard. 33 U.S.C. §§ 1311(b)(1)(C), 1342(d)(2); 40 C.F.R. §§ 122.4(a) and (d), 122.44(d)(1)(i), and 123.44(c).

25. Nonpoint sources are not defined in the Clean Water Act, but are generally viewed as any source of water pollution other than a point source discharge. Nonpoint source pollution is not regulated under the NPDES program. Indeed, the Act does not provide any federal authority to regulate nonpoint source pollution.

B. Development of Water Quality Standards

26. The Clean Water Act expressly recognizes, preserves, and protects “the primary responsibilities and rights of *States* to prevent, reduce, and eliminate pollution [and] to plan the development and use . . . of land and water resources.” 33 U.S.C. § 1251(b) (emphasis added). The Act also bars any interpretation of its provisions that would “impair [] or in any manner affect[] any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States[,]” except as otherwise “expressly provided” by the statute. *Id.* § 1370(2).

27. The Clean Water Act places primary authority with *each state* to develop water quality standards, consisting of designated uses and water quality criteria, for its water bodies. *Id.* § 1313(c)(2)(A). Each state must designate one or more uses for its water bodies and develop water quality criteria for each water body necessary to protect these uses, taking into account the water bodies’ use and value for public water supplies, propagation of fish and wildlife, recreational, agricultural, and industrial purposes, use for navigation, and other purposes. *Id.* § 1313(c)(2)(A); 40 C.F.R. §§ 131.10 and 131.11. These criteria can be expressed as specific numeric quantities or as general narrative statements, but in either case, must be based on “sound scientific rationale.” 40 C.F.R. § 131.11(a). State standards are subject to EPA review and approval to ensure that they are consistent with Clean Water Act requirements. 33 U.S.C. § 1313(c)(3)-(4).

C. Development of TMDLs for Listed Waters

28. Section 303(d) directs each state (i) to identify those waters “within its boundaries” for which technology-based Section 402 permit limitations are not stringent enough to implement the water quality standards “applicable to such waters” and (ii) to establish a priority ranking of these waters, taking into account the severity of the pollution and the waters’ designated uses. 33 U.S.C. § 1313(d)(1)(A). The state must establish a TMDL for each listed water (commonly referred to as “impaired” waters) for pollutants identified by EPA as suitable for such calculation. *Id.* § 1313(d)(1)(C). This “total” maximum daily load is established “at a level necessary to implement the applicable water quality standards,” accounting for seasonal variations and a margin of safety. *Id.*

29. A TMDL is a calculation – a number, which, as EPA acknowledges, is meant to be an “informational tool.” Final TMDL at 1-15. EPA regulations define a TMDL as the “sum” of both “wasteload allocations” (“WLAs”) – the portions of a receiving water loading capacity allocated to each of its existing or future *point* sources of pollution – and “load allocations” (“LAs”) – the loading capacity portions attributed to the water body’s “existing or future *nonpoint* sources of pollution or to natural background sources.” 40 C.F.R. § 130.2 (emphasis added). The calculations used to establish TMDLs must be subject to

public review. *Id.* § 130.7(c)(1)(ii). The Clean Water Act does not authorize EPA-imposed “allocations” of a TMDL among pollution sources.

30. Like water quality standards, the listing of waters and the establishment of TMDLs for those waters are subject to EPA review and approval. 33 U.S.C. § 1313(d)(2). If EPA disapproves a TMDL submitted by a state, or if a state fails to establish a required TMDL, EPA must establish, within 30 days, a TMDL at a level necessary “to implement the water quality standards applicable to such waters.” *Id.* This “backstop” authority does not allow EPA to establish a TMDL at a level *lower* than necessary to implement the water body’s water quality standards.

D. Implementation of TMDLs

31. In keeping with congressional policy to preserve and protect the primary responsibilities and rights of each state over its planning for the development and use of its land and water resources, the Clean Water Act does not give EPA authority over TMDL *implementation*. Only states can determine how a TMDL is ultimately achieved, including any allocations of pollutant loading.⁴ State implementation plans are not part of a TMDL, are not required to be

⁴ EPA’s only regulatory authority concerning the implementation of TMDLs is the agency’s oversight authority over NPDES permitting for point source discharges, including water quality-based permit limits “required to implement any applicable water quality standard.” 33 U.S.C. §1311(b)(1)(C).

submitted to EPA, are not subject to EPA approval, and are not subject to unilateral establishment or modification by EPA.

32. In contrast with EPA's authority to directly establish water quality standards or TMDLs under certain circumstances, the Clean Water Act does not authorize EPA to *itself* prepare a TMDL implementation plan, even where a state fails to do so. EPA has no authority to cross the line between identifying *total pollutant levels* necessary to meet water quality standards and specifying *implementation measures*. Thus, nothing in the Clean Water Act or EPA's regulations authorizes EPA to demand "reasonable assurance" that the state's implementation plan will be carried out or that it will achieve sufficient load reductions to meet the TMDL.

E. Addressing Impairment Caused by Nonpoint Sources

33. Nonpoint sources are addressed in Clean Water Act Section 319, 33 U.S.C. § 1329, which was added to the Act in 1987 to require management programs for water quality impairment caused by nonpoint sources. Nonpoint sources are also referenced in Clean Water Act Section 208, 33 U.S.C. § 1288, which directs states to develop areawide waste treatment plans that include a process to identify agriculturally and silviculturally related nonpoint sources of pollution and set forth procedures and methods to control such sources. 33 U.S.C. § 1288(b)(2)(F).

34. There is no federal implementation role for EPA in either Section 208 or 319 for nonpoint sources, which include runoff from land used for livestock and crop production.

FACTUAL BACKGROUND

A. Chesapeake Bay Program and Tributary Strategies

35. The Chesapeake Bay Program was established as a voluntary partnership in the 1980s. The original Chesapeake Bay Agreement was signed in December 1983 by the Commonwealths of Virginia and Pennsylvania, the State of Maryland, the District of Columbia, and EPA. When the agreement was amended in 1987, the Chesapeake Bay Commission, representing the legislatures of Maryland, Virginia and Pennsylvania, also signed the Agreement. The Agreement was last amended in June 2000. The States of New York, Delaware, and West Virginia are not signatories to the Chesapeake Bay Agreement, but are partners. As partners, these jurisdictions signed a memorandum of understanding agreeing to work cooperatively to achieve agreed upon nutrient and sediment reduction targets.

36. EPA issued new water quality criteria for the Chesapeake Bay in 2003. The watershed jurisdictions cooperatively allocated pollutant loadings among the watershed jurisdictions in April 2003.

37. Maryland, Virginia, the District of Columbia, and Delaware then adopted new water quality standards for the tidal waters of the Chesapeake Bay incorporating EPA's criteria.

38. In 2007, the watershed jurisdictions changed the goal of achieving water quality standards by 2010 to a goal of implementing measures to achieve standards by 2025 using and implementing “Tributary Strategies” the states had developed to achieve this new goal.

39. These efforts have and will continue to improve water quality in the Chesapeake Bay. In fact, the overall health of the Bay achieved a 6% improvement from 2008 to 2009, according to a recent EPA Chesapeake Bay Program assessment.

B. Success of Bay Watershed Agricultural Community in Reducing Pollution to the Bay

40. Farmers in the Chesapeake Bay watershed have made major contributions to protecting the Bay through improved farmland practices in recent years, and these efforts continue to expand and strengthen. These contributions include consistent improvement in nitrogen use efficiencies, as well as increased adoption and continuous improvement of best management practices (“BMPs”) that are reducing runoff.

41. The Natural Resources Conservation Service of the U.S. Department of Agriculture recently found that farmers have adopted a wealth of conservation practices on the Chesapeake Bay region’s 4.4 million acres of cropland, including actively implementing erosion control practices on about 96% of the cropland acres in production in the watershed over the 2003 to 2006 period. These and

other critical nutrient management practices have dramatically reduced the nitrogen, phosphorus, and sediment loads to the Chesapeake Bay and the streams and rivers in its watershed.

42. In fact, EPA's own data show that since 1985 the agricultural community has significantly reduced loading to the Chesapeake Bay for nitrogen (by over 27%), for phosphorus (by over 21%), and for sediment (by over 24%).

C. Development of the Final TMDL – Usurping State Authority

43. Despite what it acknowledges have been “extensive restoration efforts during the past 25 years,” EPA found it necessary to set a federal “TMDL” for the Chesapeake Bay. Although it is called a “TMDL”, EPA's action did not simply set a “total” maximum load for Bay waters. Instead, EPA's “TMDL” established a far-reaching regulatory scheme for the implementation of water quality standards in the Bay through a “historic and comprehensive ‘pollution diet’ with rigorous accountability measures to initiate sweeping actions to restore clean water” in the entire Chesapeake Bay watershed. Final TMDL at ES-1.

44. EPA set an arbitrary deadline of December 31, 2010 for establishment of the Final TMDL. This deadline required development of the Final TMDL before EPA's methods and models were ready to provide scientifically sound support. It also severely limited the time in which the public could review and provide meaningful comments on the Draft TMDL and the incomplete modeling

on which it was based, as well as the time in which EPA could absorb and respond to those comments before issuing the Final TMDL.

45. EPA imposed what it calls an “accountability framework” on the states and individual sources within the watershed as part of the extra-statutory process that produced the Final TMDL. EPA required states to submit to the agency Watershed Implementation Plans (“WIPs”) before the Draft TMDL was even proposed, reversing the sequence for proper TMDL development and implementation planning provided for in the Clean Water Act and EPA’s regulations. EPA then used the state WIPs to develop the “assumptions” that were incorporated into the models used to establish the Final TMDL.

46. EPA essentially disapproved the WIPs as submitted by all the states, concluding that the pollution controls identified in many of them were insufficient and that none of the draft WIPs provided “reasonable assurance” that the identified pollution controls would be implemented to achieve nutrient and sediment reduction targets.

47. Based on its disapproval of the draft state WIPs, EPA included “backstop measures” in the Draft TMDL, in excess of its authority under the Clean Water Act. In response to the unlawful backstop measures in the Draft TMDL and accompanying threats of retaliatory actions by EPA, watershed jurisdictions revised their implementation plans to EPA’s satisfaction. For example, the threats

included use of “residual designation” authorities to regulate sources in a state that are currently unregulated, such as smaller livestock and poultry operations, in direct contravention of EPA regulations at 40 C.F.R. § 122.23(c)(1).

48. EPA also threatened to take other actions to coerce the watershed jurisdictions into adopting EPA’s preferred implementation measures. For example, EPA threatened to object to state-issued permits, even though disagreement with a state WIP is not one of the grounds specified for objections in EPA’s regulations. *See* 40 C.F.R. § 123.44. Moreover, EPA threatened to (a) promulgate federal numeric nutrient standards, even where not necessary under the Clean Water Act, (b) require unreasonable additional point source reductions, (c) engage in increased federal enforcement activity, and (d) withhold grant money to states for reasons not intended by Congress, all because it did not agree with a state’s WIP.

49. Each of the jurisdictions revised their WIPs to avoid the threatened backstop measures in the Draft TMDL. *See generally* Final TMDL at Section 8. EPA, however, left certain backstop measures in place. *See id.* at 8-22, 8-26.

50. Through this WIP revision process, EPA has effectively overridden state implementation decisions. EPA impermissibly crossed the line between establishing an informational tool authorized by the Clean Water Act and

mandating implementation measures in a way that Congress plainly did *not* authorize.

51. EPA's encroachment into state authority over TMDL implementation was not limited to the development of implementation plans. EPA established fine-scale pollutant loading allocations in the Final TMDL, distributing pollutant loading among numerous source categories and even among individual sources throughout the watershed. *See id.* at Appendices Q, R. EPA assigned specific allocations among sources despite its recognition that "there are limitless combinations of loadings." Draft TMDL at 6-18.⁵ In doing so, EPA has effectively foreclosed future implementation options of the individual jurisdictions. EPA lacks statutory authority to distribute pollutant load allocations among sources in the guise of establishing a "total" maximum daily load.

52. Many of the pollutant load allocations established by EPA affect farms and businesses hundreds of miles upstream that do not discharge into the Bay or its tidal waters. Many of the waters that receive discharges or runoff from these sources are *achieving* their water quality standards.

⁵ The sections and appendices of the Draft TMDL are available as "Supporting & Related Material" at <http://www.regulations.gov/#!docketDetail;dct=SR;rpp=100;so=DESC;sb=postedDate;po=0;D=EPA-R03-OW-2010-0736> (posted September 24, 2010, Docket ID EPA-R03-OW-2010-0376).

53. Simply put, EPA lacks statutory authority to impose pollutant load allocations. The only mechanisms available to EPA under the Clean Water Act to address the impacts of discharges upstream of a listed water is to object to NPDES permits issued by the upstream state(s) or to object to state water quality standards if upstream states promulgate standards that do not protect downstream waters.

D. Development of the Final TMDL – Use of Flawed Model Networks

54. The fundamental purpose of the Final TMDL is to establish maximum pollutant loading to the Chesapeake Bay at a level necessary to meet applicable water quality standards. The water quality standards addressed by the Final TMDL are expressed in terms of dissolved oxygen, water clarity, and chlorophyll-*a* (used as a surrogate for algae). The standards were established by the States of Maryland and Delaware, the Commonwealth of Virginia, and the District of Columbia to protect and restore fish, other aquatic life (like oysters), and rooted aquatic plants (referred to in the Final TMDL as submerged aquatic vegetation) in the tidal waters of the Chesapeake Bay.

55. The conditions that affect those water quality parameters include (among other factors) rainfall, stream flow, tidal influence, groundwater, wind, temperature, and sunlight. EPA has determined that nitrogen and phosphorus (which are essential to plant growth) and sediment loadings also influence the concentration of dissolved oxygen and chlorophyll-*a* in the Bay. Those loadings

also influence water clarity, which in turn affects the growth of submerged aquatic vegetation.

56. EPA does not know precisely how much nitrogen, phosphorus, and sediment are actually being added to the Chesapeake Bay on a daily, monthly, or even annual basis. And when those pollutants reach the Bay, EPA does not know precisely how they influence clarity, the growth of aquatic submerged vegetation, or the concentration of dissolved oxygen and chlorophyll-*a*. Instead, EPA had to estimate the loading of these pollutants and their impact on water quality with computer modeling techniques that attempt to simulate real-world conditions.

57. EPA developed a complicated network of interrelated models to try to accomplish that objective. In fact, the Final TMDL is based almost entirely on computer modeling and simulations, a process that yields inherent uncertainty at every step. EPA's simulations are so interdependent that a fundamental flaw in one model can undermine the accuracy and validity of the entire network. That is exactly what has happened here – EPA's Final TMDL is fundamentally flawed because the models upon which it is based contain numerous errors and compounding uncertainties, which are particularly pronounced with respect to the models' treatment of loading from agriculture.

58. Among other flaws, EPA's models rely on inaccurate assumptions regarding agricultural runoff. The Bay models treat hundreds of tons of animal

manure at animal feeding operations like storm water flowing from impervious areas in cities, an implausible assumption for which EPA provides no support. EPA's modeling also includes inaccurate assumptions regarding the rate of implementation of agricultural best management practices ("BMPs"). EPA admits that it only assumed implementation of BMPs that are associated with cost-share programs, resulting in a gross underestimation of current BMP implementation throughout the watershed. These errors are compounded by the fact that EPA inaccurately modeled soil loss and sediment loadings in the Bay system.

59. Aside from using bad assumptions and flawed input data, the models themselves are unreliable. For example, EPA was unable to get its models to predict that water quality standards would *ever* be achieved in certain segments, no matter what inputs EPA used. EPA's models also predicted that in some cases the number of stream and bay segments failing water quality standards would *increase* as pollutant loads *decrease*. And perhaps most importantly, EPA used its Watershed Model to establish pollutant load allocations for the Final TMDL on a scale far more precise than the model can validly predict.

60. These errors evidence improper modeling techniques. For example, EPA's methodology for the Final TMDL violated one of the most fundamental principles of environmental modeling, which requires careful calibration to ensure that the models perform as intended. Multiple scientific reviews of EPA's models

highlighted the lack of calibration as a concern – without adequate calibration, the public cannot be certain that the models will accurately reflect the reality they purport to represent.

61. Based on what is known about how EPA has treated agriculture in its modeling network, it is clear that the models do not in fact represent reality. In fact, EPA has recently admitted that its Watershed Model is flawed and unfinished in ways that directly affect its treatment of agriculture. The agency plans to change the model in 2011 so that it can alter its assumptions regarding nutrient management and the extent of impervious surfaces in the watershed. The Final TMDL, however, is enforceable final agency action.

E. Development of the Final TMDL – Inadequate Public Review and Comment

62. EPA's Draft TMDL was released for a 45-day public comment period on September 24, 2010. 75 Fed. Reg. 57,776 (Sept. 22, 2010) (Docket No. EPA-R03-OW-2010-0736). Even though the Chesapeake Bay TMDL is the most complex TMDL ever attempted, EPA provided only 45 days for public review and comment on the TMDLs and the underlying models. The Draft TMDL consisted not only of the two sets of wasteload allocations ("WLAs") and load allocations ("LAs") for nitrogen, phosphorus, and sediment for 92 water body segments, it also consisted of detailed implementation instructions directed at the watershed jurisdictions. All told, EPA presented for a mere 45-day review the 370 pages of

the Draft TMDL document itself, 1,672 pages of 22 appendices, and poorly organized and incomplete technical support material that is referenced throughout the Draft TMDL.

63. Plaintiffs, along with numerous other organizations and members of the public, the Governor of Virginia, members of Congress, and more than 20 local governments, requested EPA to delay the TMDL and provide additional time to comment. EPA denied all requests.

64. But worse than its failure to provide sufficient time for meaningful public review and comment on the Draft TMDL, EPA withheld information necessary to provide meaningful comments during that period.

65. Only six days before the end of the comment period, on November 2, 2010, EPA staff provided to a limited number of recipients, in an e-mail communication, internet links to modeling data and results. These data and results are the inputs and outputs of the “Scenario Builder” model that EPA relied on to determine many of the assumptions – particularly those involving agricultural land use activities and practices – under which its overall modeling network predicts that water quality standards will be met. In other words, these are the inputs and outputs that determined some of the key assumptions for the Final TMDL. In addition, the final documentation for Scenario Builder that EPA made available in

conjunction with the release of the Final TMDL is dated December 2010, well after the close of the public comment period. *See* Final TMDL at 4-28.

66. The links to the scenario data, scenario results, and the code for Scenario Builder were not made available in the administrative record for the Draft TMDL or on EPA's website for the Draft TMDL. Thus, most of the public was unable to review and comment on this critical model and its assumptions about agricultural land and practices.

67. Of equal significance is EPA's failure to provide adequate notice of and an opportunity for comment on the Watershed Model. EPA provides a link to a website (http://www.chesapeakebay.net/model_phase5.aspx?menuitem=26169) containing information on the Watershed Model in the Final TMDL. That website "warn[s]" users of the draft documentation it contains that the "information is preliminary, subject to change, and unsubstantiated by full and final reviews."

68. EPA also did not allow the public to review and comment on many of the other documents it relied on to develop the Final TMDL before issuing it. EPA instead incorporated by reference a significant number of documents that "EPA and its seven watershed jurisdictions relied upon" in developing the Final TMDL, indicating only that access to this information "[would] be provided."

69. Because the significant policy choices embodied in the TMDL are based primarily on models, not actual data, and those models are based on

assumptions, it was essential that those assumptions, as well as any other information relied on by the agency, be subject to meaningful public review and comment, but they were not.

F. EPA's Final "TMDL" for the Chesapeake Bay Watershed

70. EPA issued the Final Chesapeake Bay TMDL on December 29, 2010. *See* <http://www.epa.gov/chesapeakebaytmdl/>. It addresses the restoration of aquatic life designated uses for the Bay, its tidal tributaries, and embayments, and is the "largest and most complex thus far" of the 40,000 TMDLs completed to date across the United States. Final TMDL at ES-3. The Final TMDL is in fact a combination of TMDLs, including daily and annual allocations for three pollutants for 92 individual water body segments in the Chesapeake Bay. The Final TMDL sets limits for the Bay watershed of 185.9 million pounds of nitrogen, 1.2 million pounds of phosphorus, and 6.45 billion pounds of sediment per year, which amounts to a 25% reduction in nitrogen, a 24% reduction in phosphorus, and a 20% reduction in sediment, intended to meet state water quality standards for dissolved oxygen, water clarity, and chlorophyll-*a*.

71. Rather than stop with the establishment of total maximum loads for the Bay, EPA allocated these loads throughout the watershed based on the computer models discussed above. EPA's Final TMDL also assigns pollutant loads specifically for the agricultural sector within each water segment and

jurisdiction, and pollutant loads for individual sources, including those in the broader watershed far upstream from the 92 tidal waterways themselves. These detailed pollutant loads are set forth in Section 9 of the Final TMDL and in the spreadsheets appended thereto. *See* Final TMDL at Appendices Q and R.

72. The nitrogen limit for the Chesapeake Bay basin as a whole was driven by the need to avoid occasional seasonal exceedances of the dissolved oxygen standards in the deep water and deep channels in four segments in the main stem of the Bay and the lower Potomac River, resulting in a 50 million pound reduction in nitrogen loading that would not be necessary for the other 88 segments of the Bay. *See* Final TMDL at 6-14.

73. EPA performed no analysis of the costs of compliance with the Final TMDL and its multiplicity of assigned pollutant loads that span the entire Mid-Atlantic Region, nor did EPA analyze the cumulative impact of such costs on the regulated community and society at large, as compared to the benefits of achieving dissolved oxygen water quality standards in the depths of four Bay deep-water and deep-channel segments.

74. The Final Chesapeake Bay TMDL implements EPA's specific statutory "backstop" authority to issue TMDLs with respect to two TMDLs in the District of Columbia and 23 in Virginia. For all other states and water segments,

EPA has not waited for the action by the states contemplated by the Clean Water Act before issuing the Final TMDL.

G. Significant Impacts of the Final TMDL on Plaintiffs' Members

75. EPA's Final TMDL will have a significant adverse impact on Plaintiffs' members. As a result of its inaccurate modeling, EPA assumes that specific changes in the operations of agricultural sources are necessary to achieve water quality standards in the Bay and its tidal tributaries. EPA incorporates assumptions regarding those specific operational changes into its assigned pollutant loadings for agriculture. *See* Final TMDL at Appendix V. EPA intends to force agricultural sources to adopt those changes through the permits held by regulated agricultural sources. *See id.* at 8-12. EPA also intends to convert unregulated agricultural sources into regulated sources if they do not change their operations. Finally, EPA has threatened to take actions against states if the practices assumed by EPA in the TMDL do not occur. *See id.* at 8-13.

FIRST CLAIM FOR RELIEF

EPA's Final TMDL Violates the Clean Water Act and EPA Regulations

76. Paragraphs 1-75 are realleged and incorporated by reference.

77. EPA's Final TMDL exceeds EPA's statutory authority under the Clean Water Act and otherwise violated the Act and its own regulations in multiple aspects, including those described in further detail below.

78. EPA exceeded its authority under Section 303(d)(2) of the Act, 33 U.S.C. § 1313(d)(2), which limits EPA's authority to establish a federal TMDL to instances of state action or inaction that is contrary to the Clean Water Act.

79. EPA exceeded its statutory authority under Section 303(d) of the Act, 33 U.S.C. § 1313(d), which does not authorize EPA to develop a TMDL for waterways that are not listed as impaired.

80. EPA exceeded its statutory authority when it established pollutant loading allocations for individual sources and categories of sources. EPA assigned hundreds of pollutant load allocations across the entire watershed from Virginia to New York. The assignment of these pollutant loads unlawfully usurps the states' primary Clean Water Act authority.

81. EPA exceeded its statutory authority under 33 U.S.C. §§ 1313(d) and 1370 and violated its own regulations when it assigned pollutant load allocations to upstream water segments that are outside of the Chesapeake Bay. Such allocations, which are not based on the upstream segments' water quality standards, bypass the Clean Water Act's structure (based on state-level procedures) for protecting water quality.

82. EPA exceeded its statutory authority by demanding that there be "reasonable assurance" that: (i) the pollutant allocations in the TMDL will be achieved; and (ii) water quality standards will be attained. *See* Final TMDL at 7-1.

EPA has no authority to force implementation of TMDLs or achievement of water quality standards on a federal timeline. Indeed, Congress left those matters within the exclusive authority of the states under 33 U.S.C. §§ 1288, 1313(e), and 1329. EPA's "reasonable assurance" requirement unlawfully encroaches upon the states' authority to control nonpoint source pollution, to develop TMDL implementation plans in accordance with their continuing planning processes, and to take social and economic consequences into account in determining how and when to implement water quality standards.

83. The Final TMDL also violates EPA's implementing regulations by, *inter alia*, (i) failing to comply with 40 C.F.R. § 130.7(c)(1)(ii), which requires that calculations used to establish TMDLs be subject to public review; (ii) encompassing nonpoint sources within point source wasteload allocations in contravention of the regulatory distinction in 40 C.F.R. § 130.2; and (iii) assigning load allocations to water segments when 40 C.F.R. § 130.2 provides that such allocations only be assigned to pollution sources.

SECOND CLAIM FOR RELIEF

EPA's Final TMDL Is Arbitrary and Capricious

84. Paragraphs 1-83 are realleged and incorporated by reference.

85. EPA's assigned pollutant loadings in the TMDL are based on models that used erroneous assumptions so the Final TMDL's pollutant load reductions are not justified by the evidence in the record.

86. EPA's models were not properly calibrated, so the Final TMDL's assigned pollutant loadings are not justified by the evidence in the record.

87. EPA's models are not capable of assigning valid pollutant loadings to individual sources, so the Final TMDL's assigned pollutant loadings are not justified by the evidence in the record.

88. For these reasons, EPA's Final TMDL is arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law in violation of 5 U.S.C. § 706.

THIRD CLAIM FOR RELIEF

EPA Failed to Provide for Public Notice and Comment Required by the Administrative Procedure Act

89. Paragraphs 1-88 are realleged and incorporated by reference.

90. Under the Administrative Procedure Act, an agency that intends to promulgate a rule or regulation must first provide the public with notice of, and an opportunity to comment on, a proposed version of the rule. *See* 5 U.S.C. § 553. Such notice and opportunity to comment must include the data upon which the agency relies.

91. EPA's Final TMDL was issued in violation of 5 U.S.C. § 553 in that EPA failed to provide the public with a meaningful opportunity to comment on the Draft TMDL and to participate in this regulatory proceeding. EPA failed to provide the public with sufficient access to the models and other information on

which it relied to develop the Final TMDL, and some of the most vital information that EPA relied upon continued to change even after the close of the brief comment period.

FOURTH CLAIM FOR RELIEF

EPA's Final TMDL is *ultra vires*

92. Paragraphs 1-91 are realleged and incorporated by reference.

93. To the extent not specifically alleged above, the Final TMDL is in excess of delegated statutory authority under the Clean Water Act and therefore is *ultra vires*, for the reasons set forth in ¶¶ 77-83, *supra*. Accordingly, and irrespective of federal court jurisdiction under any other statute, the Final TMDL is unlawful and should be set aside as *ultra vires*.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request this Court to enter judgment in their favor, and:

1. Declare that the Final TMDL is contrary to federal law, including the Clean Water Act, or is otherwise arbitrary, capricious, an abuse of discretion, in excess of statutory jurisdiction, authority, or limitations, or is *ultra vires*;
2. Declare that EPA violated the Administrative Procedure Act in issuing the Final TMDL without following Administrative Procedure Act procedures;
3. Vacate the Final TMDL;

4. Enjoin and restrain Defendant, its agents, employees, successors, and all persons acting in concert or participating with it from enforcing, applying, or implementing (or requiring others to enforce, apply, or implement) the Final TMDL; and
5. Grant Plaintiffs such other relief as may be necessary and appropriate or as the Court deems just and proper.

Respectfully submitted,

Dated: April 4, 2011

By: /s/ Robert J. Tribeck

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CERTIFICATE OF SERVICE

I hereby certify that on April 4, 2011 a true and correct copy of the foregoing document was electronically filed and served on the following in accordance with the Rules of the United States District Court for the Middle District of Pennsylvania:

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