UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF PENNSYLVANIA

AMERICAN FARM BUREAU FEDERATION, *et al.*,

Plaintiffs,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Defendant.

Case No. 1:11-CV-0067

(Judge Rambo)

EPA'S MEMORANDUM IN OPPOSITION TO PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT AND IN SUPPORT OF EPA'S CROSS-MOTION FOR SUMMARY JUDGMENT

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INTRODUCTION

Plaintiffs seek review pursuant to section 10(e) of the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2)(A), of a decision by the U.S. Environmental Protection Agency ("EPA") to issue the Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment ("Bay TMDL") pursuant to the Clean Water Act ("CWA"), 33 U.S.C. §§ 1251–1387. The Bay TMDL is a "pollution diet" that identifies the maximum annual and daily loads of nitrogen, phosphorus and sediment the Chesapeake Bay and its tidal tributaries may receive and still meet applicable water quality standards. Specifically, the TMDL set that "diet" at 185.9 million pounds of nitrogen, 12.5 million pounds of phosphorus, and 6.45 billion pounds of sediment per year. AR0000016.

The Bay TMDL is the product of a decades-long collaboration between EPA and the seven "Bay states" (Delaware, the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia)[1] whose waters feed the Chesapeake Bay.[2] This collaboration included collection of data, development and use of models, establishment of tidal water quality standards, assessment of whether those standards were attained, identification of appropriate pollutant

[1] All are "states" as that term is defined by the CWA, 33 U.S.C. § 1362(2). The three states that do not have tidal Bay waters (New York, Pennsylvania, and West Virginia) are considered "upstream" states.

[2] For a thoughtful history of the Chesapeake Bay TMDL, *see* "The Clean Water Act Returns (Again): Part 1, TMDLs and the Chesapeake Bay," Oliver A. Houck, 41 ELR 10208, 10209 (2011).

loading targets, and establishment of the Bay TMDL. A separate product of this collaboration was the states' development, in dialogue with EPA, of their individual watershed implementation plans ("WIPS") to implement the TMDL.

Although no Bay state has challenged the TMDL, Plaintiffs contend that, in issuing the TMDL, EPA: (1) exceeded its authority and infringed on that of the states; (2) failed to provide access to critical information during the public comment period; and (3) based the TMDL on inadequate models and flawed data. Plaintiffs' arguments fail to overcome the strong presumption in favor of upholding agency decisions, and fail to meet the burden to establish that EPA's decision was arbitrary, capricious, an abuse of discretion or not in accordance with law. Plaintiffs also fail to even attempt to make the requisite showing that they have standing to assert their claims. Accordingly, EPA is entitled to judgment in its favor.

BACKGROUND

I. Statutory and Regulatory Background

The CWA "anticipates a partnership between the States and the Federal Government, animated by a shared objective" to restore and maintain the Nation's waters. *Arkansas v. Oklahoma*, 503 U.S. 91, 101 (1992). In general, under this federal-state partnership, EPA takes the lead in establishing technology-based

requirements for discharges from point sources[3] while states take the lead in regulating nonpoint sources. *Id.* Recognizing that EPA and the states may not always agree on what is required of whom, the Act gives EPA a number of tools to assure water quality protection.

CWA section 303, 33 U.S.C. § 1313, embodies the "shared authority" approach. First, under section 303(c), states establish water quality standards that identify the "designated uses" for each body of water (*e.g.*, fish habitat) and the "water quality criteria" necessary to support those uses (*e.g.*, oxygen concentrations necessary for healthy fish). 33 U.S.C. § 1313(c)(2). EPA either approves a state's proposed water quality standards or, if it disapproves, promulgates standards for the state. 33 U.S.C. § 1313(c)(3).

Second, under section 303(d), states list all waterbodies that are impaired – i.e., not meeting applicable standards – for various pollutants. 33 U.S.C. § 1313(d)(1)(A). As with standards, EPA must either approve a state's section 303(d) list or, if it disapproves, establish a list of impaired waters for the state. 33 U.S.C. § 1313(d)(2).

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[3] The CWA defines a "point source" as "any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged." 33 U.S.C. § 1362(14). This includes pipes, ditches, channels, tunnels, conduits, most urban stormwater discharges, and "concentrated animal feeding operations," but does not include "agricultural stormwater discharges and return flows from irrigated agriculture." Everything not fitting the definition of "point source" is a "nonpoint source."

Section 303(d) also requires each state to establish a "total maximum daily load" or "TMDL" for each waterbody on the section 303(d) list. A TMDL identifies the maximum amount of a pollutant that can be added to a waterbody from all (point and nonpoint) sources and still attain applicable water quality standards. 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 130.7(c)(1). As with standards and section 303(d) lists, EPA must either approve a state's TMDL or, if it disapproves, establish a TMDL for that impaired waterbody. 33 U.S.C. § 1313(d)(2). TMDLs can be simple or complex, and cover the geographic area necessary to address the water quality problem at hand. *Dioxin/Organochlorine Center v. Clarke*, 57 F.3d 1517 (9th Cir. 1995).[4]

A TMDL also divides that "total load" into smaller components, or "allocations." 40 C.F.R. § 130.2(g), (h), (i). Point source shares of the total load are called "wasteload allocations" ("WLAs"); nonpoint source shares are called "load allocations" ("LAs"). *Id.* Allocations can be as specific as the available data allows, e.g., targeted to individual sources. *Id.* In addition to these components, a TMDL must account for "seasonal variations" that affect water quality (e.g.,

[4] EPA has established other TMDLs for interstate waterbodies. For example, in 1991, EPA established a multi-state TMDL for dioxin in the Columbia River watershed at the request of three watershed states (Washington, Oregon, and Idaho). The Ninth Circuit upheld the TMDL. *Dioxin/Organochlorine Center*, 57 F.3d at 1528.

temperature) and include a "margin of safety." 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 130.7(c)(1).

Finally, under Section 303(e), states must establish a "continuing planning process" – a comprehensive framework for implementing the measures necessary to protect water quality, of which water quality standards and TMDLs are a part. 33 U.S.C. § 1313(e)(1). *See also* 33 U.S.C. § 1313(e)(3); 40 C.F.R. § 130.5(b). EPA must approve a state's "continuing planning process" as a prerequisite to that state gaining authority to issue point source permits under the National Pollution Discharge Elimination System ("NPDES") program. 33 U.S.C. § 1313(e)(2).

Congress gave states the primary responsibility to control nonpoint sources of pollutants, establishing a "carrot-and-stick approach" to attaining acceptable water quality without direct federal regulation of nonpoint sources. *Pronsolino v. Nastri*, 291 F.3d 1123, 1127 (9th Cir. 2002). The "threat and promise" of federal grants is one motivational tool. *Id.* at 1126-27. For example, pursuant to section 319(h)(8), EPA must determine that a state has made "satisfactory progress" in meeting the nonpoint source implementation schedule in its section 319 program before awarding the next year's section 319 grants. 33 U.S.C. § 1329(h)(8).

The NPDES program is a federal permit program to control point sources of pollutants. 33 U.S.C. § 1342. NPDES permits must contain technology-based effluent limits and, if necessary, more stringent limits based on the applicable

water quality standards. 33 U.S.C. § 1311(b). EPA may authorize states to issue NPDES permits, 33 U.S.C. § 1342(b), but it retains the authority to object to and replace an inadequate state NPDES permit. 33 U.S.C. § 1342(a)(5).

Courts have entered consent decrees that acknowledged EPA's duty to establish TMDLs for the Chesapeake Bay and related waters in Virginia, Delaware and the District of Columbia and established deadlines for the performance of that duty. Virginia's failure for nearly twenty years to submit more than a single TMDL caused a federal court to approve a consent decree requiring EPA to establish TMDLs for all waters on Virginia's section 303(d) list, including those in the Chesapeake Bay. *American Canoe Ass'n. v. EPA*, 54 F.Supp.2d 621 (E.D. Va. 1999) (included at AR0012527-AR0012621); *see also American Canoe Ass'n. v. EPA*, 30 F.Supp.2d 908, 920-22 (E.D. Va. 1998). EPA was subject to similar consent decree obligations in the District of Columbia and Delaware. AR0000064-AR0000066; *Kingman Park Civic Ass'n v. EPA*, No. 98-cv-00758 (D.D.C.) (June 13, 2000) (AR0012502-AR0012526); *American Littoral Soc'y v. EPA*, No. 96cv591 (D. Del. Aug. 4, 1997) (AR0012637-AR0012669). EPA and Maryland entered into a Memorandum of Understanding in 1998 pursuant to which EPA agreed to establish TMDLs for Maryland's impaired Bay waters if Maryland had not done so by 2008. AR0000067; AR0012622-AR0012636. In 2004, the parties extended that date to 2011. AR0012466-AR0012501.

On October 1, 2007, EPA and the Bay states reached consensus that EPA would establish the Bay TMDL on behalf of the states. AR0000056; Exhibit F (AR0000426); Exhibit G (AR0000426). In this regard, the Bay TMDL followed the model set twenty years earlier by the multistate Columbia River dioxin TMDL. *Dioxin/Organochlorine Center*, 57 F.3d at 1520 ("after consultation and involvement in the development of the draft TMDL, the states requested the EPA to issue the proposed and final TMDL as a federal action under the authority of § 1313(d)(2)"). This consensus supplemented authority EPA already possessed by virtue of its consent decree obligations to ensure that TMDLs were established for all impaired Bay-related waters on the Virginia, Delaware, and D.C. section 303(d) lists.

In CWA section 117, Congress reaffirmed a strong federal role for ensuring pollution reduction in the Chesapeake Bay watershed. 33 U.S.C. § 1267. Passed in 1987, section 117 required EPA to establish the Chesapeake Bay Program Office in support of state and EPA restoration efforts undertaken pursuant to the 1983 and 1987 Chesapeake Bay Agreements. Leg. History of Water Quality Act of 1987 at 1473-74 (1988). The House Report noted that "the Chesapeake Bay is an *ecosystem that ignores State boundaries*" and that implementation "will require a partnership between the Federal Government and the individual States." *Id.*

Congress significantly strengthened section 117 in 2000 by adding, among other things, a new section 117(g). The Conference Report reiterates Congress's recognition that the Chesapeake Bay is "the first estuary in the nation to be *targeted for restoration as a single ecosystem*" and notes that, "[i]n new section 117(g), the Conference substitute adopts language from the Senate bill that *requires the Administrator to ensure* that management plans are developed and implementation is begun by signatories of the Agreement not only to achieve, but also to maintain, the goals of that Agreement." H.R. Rep. No. 106-995 at 36-37 (2000) (emphasis added).

Significant efforts have been made since 1987 to achieve the goals and requirements of section 117. *See* "Factual Background," *infra*. On May 12, 2009, President Obama signed Executive Order 13508 – Chesapeake Bay Protection and Restoration, 74 Fed, Reg. 23,099 (May 15, 2009) – which reaffirmed the Bay's status as a "national treasure," recognized that restoration of the Bay "will require a renewed commitment to controlling pollution from all sources," and called on the federal government to lead that effort. AR0006953.

Section 301 of Executive Order 13508 directed EPA to "make full use of its authorities under the Clean Water Act to protect and restore the Chesapeake Bay and its tributary waters." AR0006956. In particular, it directed EPA to "construct[] watershed-based frameworks that assign pollution reduction

responsibilities to pollution sources and maximize the reliability and cost-effectiveness of pollution reduction programs" and to "establish[] a schedule for the implementation of key actions in cooperation with States, local governments, and others." AR0006957.

II. Factual Background

This section provides a brief overview of the importance of the Bay, the causes of its degradation, and the series of collaborations between EPA and the Bay states that led to development of the Bay TMDL as part of the partnership's efforts to restore the Bay.

A. The Chesapeake Bay is in Trouble

The Chesapeake Bay watershed is one of the most extraordinary places in America. It is the nation's largest estuary[5] and its waters hold tremendous ecological, cultural, economic, historic and recreational value. But the Bay and its tributaries remain in poor health, with polluted water and low populations of fish and shellfish. AR0003791-AR0003792.

The Bay – which both Presidents Reagan and Obama recognized as a "national treasure" – has been under duress since at least 1900, when the oyster population began to decline. AR0000050. Bay water quality significantly declined in the 1970s, leading to a rapid loss of once abundant aquatic life. *Id.*

[5] The Bay has a surface area of 4,500 square miles. 64,000 square miles of land in parts of all seven Bay states drain to the Bay via numerous tributaries.

This, in turn, seriously damaged the Bay's historically important fishing industry and decimated the iconic Chesapeake watermen. AR0004339-AR0004670.

In 1982, the results of a five-year study identified excess nitrogen, phosphorus, and sediment as the primary causes of the Bay's degradation. AR0000050; AR0004725-AR0005374. That pollution comes from many sources throughout the watershed, including wastewater treatment plants, agriculture, and urban stormwater. AR0000108-AR0000113. These sources have increased with the population in the Bay watershed, which rose dramatically from 8.3 million in 1950 to nearly 17 million today. AR0000071; AR0000073.

The partners agreed to divide the Bay tidal waters into 92 discrete segments for many purposes, including the development of state 303(d) lists. AR0000074-AR0000075; AR0010861-AR0010887; AR0010888-AR0010959. Each state with tidal waters (D.C., Delaware, Maryland, and Virginia) adopted that segmentation scheme prior to development of its respective 2008 section 303(d) list.[6] The tidal states identified 89 segments as impaired and 3 others as possibly impaired and tidally connected, thus transporting pollutants to the impaired segments. AR0000081-AR0000082. After EPA approved those lists, the partners determined that the TMDL would need to address all 92 segments. *Id.*

[6] AR0000077-AR0000080; AR0012553-AR0012362; AR0012195-AR0012252; AR0011786-AR0011971; AR0011972-AR0012194.

B. Evolution of the Chesapeake Bay Partnership

Over the past 29 years, the Bay states and EPA developed the CBP into a collaborative partnership focused on restoration of Bay water quality. EPA, Pennsylvania, Maryland, Virginia and the District of Columbia formed the initial CBP partnership in 1983 by signing the first Chesapeake Bay Agreement "to assess and oversee the implementation of coordinated plans to improve and protect the water quality and living resources of the Chesapeake Bay estuarine systems." AR0005488-AR0005489. In 1987, these partners executed a second Bay Agreement that set the Bay's first numeric goals: 40% reduction in nitrogen and phosphorus loads entering the Bay by 2000. AR0005481-AR0005487.

On June 28, 2000, the partners executed the Chesapeake 2000 Agreement, readjusting the course for the Bay's restoration and protection. AR0005417-AR0005429. Instead of primarily voluntary and grant-funded efforts, the partners now "emphasized the regulatory framework of the [CWA] along with the ongoing cooperative efforts of the [CBP] as the means to address the nutrient enrichment problems within the Bay and its rivers." AR0005421-AR0005422; AR0000052-AR0000053.

Based on scientific information showing that nitrogen and phosphorus from upstream sources were affecting water quality conditions downstream, the partners recognized that attaining Bay water quality goals would require pollutant reduction

from sources across the entire watershed. AR0005441-AR0005443; AR0005478-AR0005480; and AR0004725-AR0005374. Accordingly, the partners sought support from the other states in the watershed – Delaware, New York, and West Virginia. By 2002, those three states embraced the partnership's commitment to achieve the water quality goals of the Chesapeake 2000 Agreement by signing a multi-jurisdictional Memorandum of Understanding ("MOU"). AR0000053; AR0005415-AR0005416. To attain the water quality goals of *Chesapeake 2000*,[7] the partners committed to: (1) define water quality conditions in the Bay necessary to protect aquatic living resources; (2) use best efforts to adopt new or revised tidal Bay water quality standards consistent with the defined water quality conditions; (3) assign load reductions for nitrogen, phosphorus and sediment to each major tributary basin; and (4) develop and begin to implement revised Tributary Strategies[8] explaining how each state would achieve those load reductions.

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[7] For purposes of this brief, "*Chesapeake 2000*" includes both the Chesapeake 2000 Agreement and the MOU, which continue to govern the relationship of the parties. The phrase "the CBP partnership" or "partners" refers to all seven Bay states and EPA.

[8] Tributary strategies – forerunners to the state WIPs - were initiated by the Bay states in the 1990s and subsequently revised to meet nutrient reduction goals, to improve water quality, and to restore living resources to the tidal Bay and tributaries. AR0005478-AR0005480; AR0005417-AR0005429. The tributary strategies were similar to but less specific than the WIPs discussed infra at 20-21. *See, e.g,* AR0025422-AR0025524; AR0025525-AR0026300; AR0026393-AR0026671; AR00266720-AR0026812.

AR0005421-AR0005422; AR0000053. The partners agreed that, if water quality were not restored by 2010, all applicable authorities would be used, including the development of TMDLs. AR000053-AR000055; AR0005417-AR0005429.

The partners next developed Chesapeake Bay-specific water quality criteria and designated uses and established new loading caps and allocations for nitrogen, phosphorus, and sediment.[9] The partners later used many of these allocation procedures to develop the Bay TMDL. AR0000054; AR0012720-AR0012887; AR0005397-AR0005405; AR0005395-AR0005396; and AR0005388-AR0005390.

C. Bay Partnership Decision-making Process

The partners operate collaboratively through a number of committees, the most important being the Principal Staff Committee ("PSC"). AR0000055; AR0000059-AR0000060; AR0007173-AR0007174. The PSC includes Cabinet Secretaries of each Bay state's agricultural, environmental, and natural resources departments and the EPA Region III Regional Administrator. AR0000059-AR000060.

A Management Board oversees six goal implementation teams, including the Water Quality Goal Implementation Team ("WQGIT") and its agriculture, forestry, wastewater, and urban stormwater workgroups. AR0000058-AR0000061.

[9] AR0008193-AR0008535; AR0012720-AR0012887; AR0011035-AR0011352; AR0005395-AR0005396; AR0005397-AR0005405.

The partnership also has multiple advisory committees, including the Scientific and Technical Advisory Committee ("STAC"). AR0000061. Composed of scientists from federal agencies and academic institutions across the watershed, STAC provided scientific and technical guidance as well as independent peer review of activities related to the Bay TMDL, including all of the partnership's models and other decision-making support tools. *Id.*

The CBP partnership "defines its collective actions through formal, voluntary agreements and provides general policy direction through consensus documents, typically called directives." AR0000058. Over its 29-year history, the partnership "has routinely relied upon collaborative decision-making." AR0007178-AR0007179; AR0007173-AR0007174. Consensus decisions are documented, often in the meeting minutes. AR0007178-AR0007179; *see, e.g.*, Exhibit A (AR0000430); Exhibit B at 7-14 (AR0000428); Exhibit C at 9-11 (AR0000432).

Thousands of CBP partnership meetings, conference calls, and workshops hosted in the past 29 years have been routinely open to the public. AR0007178-AR0007179; AR0000422-AR0000454. Members of the various workgroups include regulated entities, environmental groups, academics, regional and local governments, and federal agencies. AR0000060-AR0000062. Along with an on-line calendar providing advance notice of meetings, the CBP partnership's website

routinely posts and archives meeting agendas, significant documents, and summaries of decisions and follow-up actions. AR0000422-AR0000454; Exhibit D (AR0000428).

D. Water Quality Monitoring and Data Collection

From the beginning, the partners' decisions have been informed by the most current scientific data and interpretative analyses, including long-term tidal and non-tidal water quality and biological resource monitoring networks covering the entire seven-state watershed.[10] Over a single year, coordinated tidal and non-tidal monitoring networks generate almost 300,000 unique water quality data points. The partners have collected over 8.5 million data points since 1984, all of which are available on-line to the public. AR0000166.[11] These data have been used to develop the Chesapeake Bay segmentation scheme, revise tidal Bay water quality standards, and develop, calibrate and validate the partnership models. AR0000169.

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[10] AR0004725-AR0005374; AR0003791-AR0003792; AR0003793-AR0004338; AR0004339-AR0004670; AR0004671-AR0004724; AR0016847-AR0017286; AR0017287-AR0017620; AR0008193-AR0008535; AR0012720-AR0012887; AR0011035-AR0011352; AR0010611-AR0010860; AR0009226-AR0009456; AR0010582-AR0010610.

[11] AR records accessed through the urls identified in AR Index Ches. Bay…Data Access Category, pages 15-16 starting with Chesapeake Bay Program: Tidal Water Quality Data, January 1985 – December 2006. (See Link) ftp://ftp.chesapeakebay.net/Modeling/Upload/Administrative_Record_Model_Files/tmdl_wq_holdings_aug11/tidal_wq_data/

E. Development and Application of Partnership Models

Modeling is a scientifically recognized approach that uses observed and simulated data to approximate what is occurring in the environment in order to make future predictions. AR0033473-AR0033475. Modeling supported decision-making during the development of the Bay TMDL.

Since the early 1980s, the partners have produced several generations of linked environmental models. AR0000169. The partners have used these models to evaluate the response of Bay water quality to the many natural variables (*e.g.*, tides, currents, salinity, temperature), human-caused variables (*e.g.*, agricultural activity, urbanization), and various pollutant reduction management scenarios (*e.g.*, stormwater management and agricultural practices). AR0000170-AR0000172.

The models used to inform the Bay TMDL were developed under the technical direction of the Modeling Subcommittee and applied under the direction of the WQGIT. AR0000061. Critical modeling decisions were made through the partners' workgroups, goal implementation teams, and committees. AR0000061, AR0000151; AR0000170-AR0000171; AR0007178-AR0007179. Under the partners' oversight, numerous federal agencies and academic institutions were responsible for model development, calibration, and verification. AR0000169-AR0000196. The data used to develop, calibrate, and verify the models comes from a multitude of sources, including: the monitoring networks described

previously and numerous federal agencies (*e.g.*, USDA, NRCS, USGS, NOAA, and EPA). AR0000152-AR0000153; AR0000168-AR0000169; AR0000183-AR0000187.

All of the models have been independently peer reviewed.[12] The partners themselves made the final decisions regarding application of all models. AR000061; AR0000151; AR0000169-AR0000170; *see also, e.g.*, Exhibit B (AR0000428); Exhibit C (AR0000432). EPA used these models in development of the Bay TMDL. AR0000153; AR0000169-AR0000172; AR0000221.

In developing its models (as well as the Bay TMDL), the partners solicited public participation through hundreds of workshop, meetings, and conference calls between 2005 through 2010. AR0000422-AR0000454. During that time, the partners met with national, regional, and local stakeholders to discuss issues regarding the use of data, the suite of models, allocation procedures, partnership policies, and peer reviews. *Id.*; AR000060-AR0000062; AR0000339. Stakeholders participating in these meetings came from the agricultural, municipal, and development communities. *See, e.g.*, Exhibit E at 19-20 (AR0000435).

[12] AR0015024-AR0015035; AR0015036-AR0015060; AR0014981-AR0015006; AR0015132-AR0015134; AR0015010-AR0015022; AR0014964-AR0014974; AR0016404; AR0014959-AR0014963.

F. Chesapeake Bay TMDL Development

At the October 1, 2007 PSC meeting, the partners made a consensus decision that EPA would establish the Bay TMDL in coordination with, and on behalf of, the seven Bay states. AR0000056; Exhibits F and G (AR0000426). At their May 12, 2009 meeting, the Chesapeake Executive Council adopted 2025 as a target date for all necessary pollution control measures to be in place. On September 17, 2009, EPA published a Federal Register notice letting stakeholders know the plans of the Bay partners to develop a Bay TMDL and the schedule for the partners to conduct public outreach meetings. AR0029413-AR0029415.

EPA and the state partners used a four-step process (parts of which occurred contemporaneously) to develop the Bay TMDL. AR0000262-AR0000263.

1. Development of River Basin and State Target-Load Allocations

Throughout 2009 and the first half of 2010, the partners developed each Bay state's target loads for nitrogen, phosphorus, and sediment. AR0000244. On October 23, 2009, the partners reached consensus on several principles for equitable allocation of their loads. AR0000212-AR0000221; Exhibits H and I (AR0000433). Applying those principles, and to seek feedback from partners, EPA developed draft nitrogen and phosphorus target loads and then proposed them to the Bay states on November 3, 2009. AR0023289-AR0023293. After further discussion among the partners, EPA shared refined nitrogen and phosphorus target

loads with the states on July 1, 2010, and shared the sediment target loads on August 13, 2010. AR0000244; Exhibit J (AR0000426); AR0012675-AR0012682; AR0012670-AR0012674.

EPA used the partners' suite of models to determine that the state target loads were sufficient to attain applicable water quality standards. AR0000221-AR0000222; AR0000244. The allocation of loads among the Bay states reflected agreement by the partners not only on the target loads themselves, but also on such issues as how to allocate the benefit from reductions in atmospherically deposited nitrogen. AR0000221-AR0000224; AR0000244. The partners also decided that the states would use these target loads to develop their respective draft watershed implemention plans (the "WIPs") including proposed pollutant source allocations. The partners also agreed to submit their draft WIPs to EPA for consideration in development of the draft TMDL. *Id.*

2. Development of Draft Watershed Implementation Plans

As discussed in the TMDL, "the WIPs are the roadmap for how the states, in partnership with federal and local governments, will achieve and maintain" the Bay TMDL allocations. AR0000255. As such, the WIPs are different from the TMDL itself. They are the compendium of each state's plans for achieving the TMDL's pollutant loading allocations. The Bay states each used their target loads to develop draft Phase I WIPs. *Id.*; AR0000244; AR0000262. As part of those

WIPs, each state also proposed specific allocations of nitrogen, phosphorus and sediment to individual sources and/or combinations of sources ("sectors"). *Id.* EPA used the states' proposed allocations as the basis, where possible, for developing individual and sector allocations in both the proposed and final TMDL. AR0000263.

Between 2008 to 2010, EPA provided several letters to the Bay states explaining its expectations for state implementation efforts to restore Bay water quality in conjunction with the Bay TMDL. AR0000255-AR0000256; AR0023294-AR0023301; AR0023289-AR0023293; AR0012683-AR0012719; AR0023273-AR0023284; AR0026963-AR0026979; AR0023285-AR002388. These letters helped describe the Bay restoration "accountability framework"[13]envisioned in Executive Order 13508 and agreed to by the partners. AR0000253-AR0000254; AR0023294-AR0023301; AR0006953-AR0006960; Exhibits F and G (AR0000426).

EPA expected each Bay state's Phase I WIP to: (1) meet the state's numeric target loads and (2) provide reasonable assurance that the state's proposed source and sector allocations would be met. AR0024034-AR0024054; AR0000257. As such, EPA's review of the state WIPs was focused primarily on whether the state's

[13] The Bay TMDL accountability framework has four primary elements: the WIPs, the two-year milestones, EPA's tracking of progress, and EPA's commitment to take federal actions. AR0000253.

proposed allocation numbers, the quantity, as well as the quality of the programs "measured up." EPA provided continuous feedback and technical assistance to each Bay state on its draft and final Phase I WIPs. AR0000257.

3. The Draft TMDL

EPA evaluated the states' draft Phase I WIPs to determine whether they met the above-described expectations, with the goal of using the states' proposed allocations as the basis for the draft TMDL's LAs and WLAs. AR0000257; AR0024034-AR0024054. However, upon evaluation of the Bay states' draft Phase I WIPs, EPA determined that most did not meet their respective target loads and none provided adequate assurance that they could meet their target loads. AR0000266. As a result, the allocations EPA proposed in the draft TMDL were a hybrid of the states' draft Phase I WIP allocations and EPA adjustments (so-called "backstop" allocations) to ensure that applicable water quality standards would be met. *Id.*; AR0000020.

On September 22, 2010, EPA published a Federal Register notice of its proposed Bay TMDL and announced a 45-day public comment opportunity. AR0029410- AR0029412. Following this announcement, EPA conducted a total of 18 public meetings across the watershed, including many live web-accessible broadcasts, which reached nearly 2,800 participants. *Id.*; AR0000339-AR0000340. EPA also held 15 webinars, including targeted webinars for the agricultural

community (218 participants) and the development community (84 participants). AR0000340. EPA received over 14,000 public comments on the draft TMDL, including detailed comments from individuals and groups representing all sectors of the Bay watershed (*e.g.*, agriculture, wastewater, development, and environmental groups). AR0000341; AR0000639-AR0002056; AR0002057-AR0003788.

4. The Final TMDL

Between early October and mid-December, the Bay states provided EPA with revised and final Phase I WIPs which, as a result of extensive collaboration between EPA and the Bay states, were significant improvements over the states' draft WIPs. AR0000025; AR0000342. Based on its evaluation of the states' final Phase I WIPs and the extensive public comments, EPA was able to reduce or remove most "backstops" in the final Bay TMDL and still set the allocations at levels that would meet water quality standards. *See supra*, section II.F.2. The allocations in the final TMDL (including the individual WLAs) are based almost entirely on the proposed allocations developed by the Bay states in their final Phase I WIPs. AR0000263. The final TMDL included only three targeted "backstops" and a plan for enhanced EPA oversight. *Id.*

In New York, the only state whose WIP did not meet its state-wide target loads, EPA allocated a more stringent WLA for the wastewater sector, a "backstop

allocation," to close that gap and ensure that Bay standards would be met. AR0000284-AR0000285. Pennsylvania and West Virginia met their state-wide target loads, but did not provide adequate reasonable assurance that the allocations they proposed for their stormwater (PA) or agriculture (WV) sectors would be met. To ensure that standards would be met, EPA adjusted the characterization of those sector's allocations, a "backstop adjustment." Without changing the total allocation numbers, EPA reassigned a portion of each state's loadings from those two sectors from the "LA" to the "WLA" category. AR0000287-AR0000288; AR0000291-AR0000292.

Thus, based almost entirely on the Bay states' final Phase I WIPs, EPA established the Bay TMDL as a "pollution diet" for nitrogen, phosphorus, and sediment for the entire watershed. The Bay TMDL consisted of the following pollutant load allocations and a margin of safety: 478 individual WLAs to individual significant wastewater point sources; ten individual WLAs to Virginia Phase I MS4 point sources; aggregate WLAs to point sources of wastewater, stormwater and agriculture; aggregate load allocations (LAs) to the following nonpoint sectors: agriculture, forest, non-tidal atmospheric deposition, on-site septic, urban, and LA reserve; and an implicit (nitrogen and phosphorus) and explicit (sediment) margin of safety. AR0000295; AR0000616-AR0000617; AR00000618-AR0000619. The TMDL made allocations to only ten pollutant

source categories—wastewater, wastewater-CSOs, regulated stormwater (primarily MS4s), agriculture, agriculture-regulated, forest, non-tidal atmospheric deposition, on-site septic, urban, and LA reserve. AR0000616-AR0000617.

STANDARD OF REVIEW

Under the APA, a court may only set aside agency actions "found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law . . . ." 5 U.S.C. § 706(2)(A). "[W]hen a party seeks review of agency action under the APA [before a district court], the district judge sits as an appellate tribunal." *Am. Bioscience, Inc. v. Thompson,* 269 F.3d 1077, 1083 (D.C. Cir. 2001); *Rempfer v. Sharfstein,* 583 F.3d 860, 865 (D.C. Cir. 2009).

An agency action is arbitrary and capricious only where the "the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *NVE, Inc. v. Dep't of Health and Human Servs.,* 436 F.3d 182, 190 (3d Cir. 2006). This standard is a narrow one and a court may not substitute its own judgment for that of the agency. *Pa. Dep't of Pub. Welfare v. U.S. Dep't of Health and Human Servs.*, 101 F.3d 939, 943 (3d Cir. 1996). In addition, courts must

defer to agency expertise in scientific and technical matters. "When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views persuasive." *Marsh v. Oregon Naural. Res. Council*, 490 U.S. 360, 375, 378 (1989). Accordingly, if the agency has "considered the relevant factors and articulated a rational connection between the facts found and the choice made," its decision must be upheld. *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 105 (1983).

ARGUMENT

I. The Court Lacks Subject Matter Jurisdiction Because Plaintiffs Have Not Demonstrated Standing.

The "irreducible constitutional minimum" of standing under Article III of the U.S. Constitution "requires a plaintiff to establish three elements: an *injury in fact*, i.e., an invasion of a legally protected interest which is actual or imminent, and concrete and particularized, as contrasted with a conjectural or hypothetical injury; a *causal connection* between the injury and the conduct complained of; and *substantial likelihood of remedy* -- rather than mere speculation -- that the requested relief will remedy the alleged injury in fact." *Pennsylvania Prison Soc. v. Cortes*, 508 F.3d 156, 160-61 (3d Cir. 2007) (emphasis in original; citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992)). "[E]ach element must be supported in the same way as any other matter on which the plaintiff bears the burden of

proof, i.e., with the manner and degree of evidence required at the successive stages of the litigation." *Id.* at 161 (citing *National Wildlife Federation*, 497 U.S. 811, 883-89 (1990)). At the summary judgment stage, a plaintiff must set forth "specific facts" by affidavit or other evidence that satisfy the requirements of Fed.R.Civ.P. 56(e). *Id.* (citing *Defenders of Wildlife*, 504 U.S. at 561); *ACLU-NJ v. Twp. of Wall*, 246 F.3d 258, 261 (3d Cir. 2001). "'[T]he necessary factual predicate may not be gleaned from the briefs and arguments themselves.'" *Pennsylvania Prison Soc.*, 508 F.3d at 161-62 (quoting *Bender v. Williamsport Area School Dist.*, 475 U.S. 534, 547 (1986)).

Plaintiffs in this matter, associations of various agribusinesses and homebuilders, allege standing to sue on behalf of their members. *See* First Amended Complaint (DN 16), ¶¶ 8-9, 11-17. Such an association "'has standing to bring suit on behalf of its members when: (a) its members would otherwise have standing to sue in their own right; (b) the interests it seeks to protect are germane to the organization's purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.'" *United Food and Commercial Workers Union Local 751 v. Brown Group, Inc.*, 517 U.S. 544, 553 (1996) (quoting *Hunt v. Wash. State Apple Adver. Comm'n*, 432 U.S. 333, 343 (1977)); *see Friends of the Earth v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 181 (2000).

Plaintiffs have submitted no affidavits or other evidence to establish the requisite elements of representational standing. This omission requires their suit to be dismissed. *See Township of Wall*, 246 F.3d at 266 (court granted motion for summary judgment because plaintiffs' failure to submit affidavits establishing elements of standing required dismissal for lack of jurisdiction); *Summers v. Earth Island Inst.*, 555 U.S. 488, 497-99 (2009) (organization lacked standing because it did not adduce evidence that a single specifically-identified member suffered injury in fact); *Defenders of Wildlife*, 504 U.S. at 563 (organization lacked standing because it failed to "submit affidavits ... showing, through specific facts ... that one or more of [its] members would ... be 'directly' affected" by the allegedly illegal activity).

II. EPA Properly Exercised its Authority under the CWA in Establishing the Bay TMDL, Which is Not a "Mandatory Watershed-Wide Implementation Plan" and Does Not "Dictate Implementation Requirements."

Plaintiffs do not challenge EPA's authority to establish the Bay TMDL; instead, they challenge the purported nature and effect of the TMDL, contending that it either contained implementation requirements or "took over" state implementation decisions and, therefore, invaded the states' legal authority. Pl. Br. at 25-38. This premise is incorrect. As discussed above, the Bay TMDL is the product of years of collaboration with the Bay states. While it is based almost entirely on plans developed by the Bay states, it contains only those elements

authorized by statute and regulation to be in any TMDL. It does not include implementation requirements. Although EPA based the TMDL in part on the assumption that the Bay states will implement it using the plans they developed, EPA did not dictate those plans. To the contrary, EPA explicitly recognized that a flexible, adaptive process will be used to implement the TMDL, using the two-year milestones and other aspects of the accountability framework developed by the partners.

A. The Bay TMDL does not "dictate" or "impose" implementation requirements.

Neither the language nor structure of the CWA or relevant federal regulations, nor the facts of this case, support Plaintiffs' argument that the Bay TMDL is a "federal implementation plan" that exceeds EPA's authority and intrudes on what is alleged to be the "exclusive authority" of the states to implement TMDLs. Pl. Br. at 25-33. Further, the Bay TMDL does not "impose" anything – to the contrary, it was developed through a collaborative process exemplary of cooperative federalism.

1. Plaintiffs' assertions that the TMDL imposes "implementation" requirements are incorrect.

TMDLs are not regulations; nor are they enforceable or self-implementing. Instead, TMDLs rely on other provisions of federal, state, and local law for their implementation. They are themselves "primarily informational tools that . . . serve

as *a link in the implementation chain* that includes federally-regulated point source controls, state or local plans for point and nonpoint source pollution reduction, and assessment of the impact of such measures on water quality, all to the end of attaining water quality goals for the nation's waters." *Pronsolino*, 291 F.3d at 1129 (emphasis added).

There is no federal legal requirement that TMDLs contain, or be accompanied by, implementation plans; nor must EPA "approve" such plans. *Sierra Club v. Meiburg*, 296 F.3d 1021 (11th Cir. 2002); *Amigos Bravos v. Green*, 306 F.Supp.2d 48 (D.D.C. 2004). Conversely, there is no federal statutory or regulatory prohibition against development of TMDL implementation plans, either contemporaneously with or after development of a TMDL. Contemporaneously-developed implementation plans complement the Act's water quality planning framework, and can aid the TMDL writer in determining the appropriate mix of allocations. Here, the states developed the implementation plans; EPA, in collaboration with the states, established the TMDL.

While TMDL allocations are extremely useful in *planning for* implementation of pollution control strategies, a TMDL does not, by itself, prohibit or require any implementation actions. Instead, a TMDL identifies loading reductions necessary to meet standards; those reductions may be achieved by

various administrative actions. *Sierra Club*, 296 F.3d at 1025. Examples of such administrative implementation actions include:

- States ensuring that effluent limitations in point source permits are consistent with applicable WLAs (40 C.F.R. § 122.44(d)(1)(vii)(B));
- States incorporating TMDLs into their continuing planning processes consistent with CWA section 303(e) (33 U.S.C. § 1313(e)); and
- States regulating nonpoint sources to achieve the pollutant reductions necessary to attain LAs.

Thus, the TMDL and its WLAs and LAs identify the goals for further administrative actions that may require or prohibit conduct with respect to specific pollutants and waterbodies. It is those further administrative actions – not the WLAs and LAs – that constitute "implementation".

2. The Bay TMDL was developed through a collaborative process that was agreed to by EPA and the Bay states, authorized by Congress, and consistent with the CWA and "cooperative federalism."

The Bay TMDL is the product of extensive collaboration by the CBP partnership. *See* 33 U.S.C. § 1267(a)(2)-(6); AR0000050-AR0000058; *supra* at Section II.F. EPA established the Bay TMDL pursuant to its own authority and in agreement with the Bay states. *See* p. 18, *supra*. The Bay TMDL includes allocations for nitrogen, phosphorus, and sediment that, in all but three instances, were based on the Bay states' WIPs. *See* Section II.F.4, *supra*. The CBP

partnership provided the forum for the collaboration and the technical resources necessary to the development of both the WIPs and the TMDL. Through collaborative development of the TMDL and the states' WIPs, EPA and the states accomplished their respective tasks more efficiently than they could have acting independently – exactly the kind of state-federal cooperation envisioned in the CWA.

Plaintiffs contend that EPA's evaluation of state WIPs resulted in improper coercion of the states.[14] Pl. Br. at 19-20. This contention is wrong. EPA reviewed the WIPs to determine whether the states' proposed allocations were (1) sufficient and (2) likely to be achieved. Such review was consistent with EPA's need to assess the reasonableness of those allocations in light of EPA's statutory obligations to ensure the Bay TMDL was set "at a level necessary to implement the applicable water quality standards," 33 U.S.C. § 1313(d)(1)(C), and to "ensure that management plans are developed and implementation is begun," 33 U.S.C. § 1267(g). AR0000924, AR0000931; AR0000262-AR0000294.

Plaintiffs wrongly contend that two cartoons and two e-mails show that the WIPs were the product of "coercion, not cooperation." Pl. Br. at 17-19. The

[14] Plaintiffs' argument meanders between alleging that the states adopted the WLAs and LAs (under coercion from EPA), and alleging that EPA adopted the WLAs and LAs. These two arguments contradict one another, and cannot both be correct. A separate examination of each argument shows that neither is correct.

cartoons show nothing more than an attempt to inject some humor into lengthy PowerPoint presentations; the e-mails show isolated instances of Virginia state employees expressing some displeasure with aspects of the collaboration process. The administrative record shows discussion, debate, negotiation, and cooperation – not coercion – over the course of the multi-year dialogue between EPA and the states about a host of scientific, technical and legal issues. *See, e.g.*, AR0027134-AR0027136; AR0027162-AR0027164; Exhibit B (AR0000428); and Exhibit C (AR0000432). The fact that no state has filed suit challenging the TMDL confirms the consensus reached by the partners on many complex issues.

Plaintiffs also wrongly assert that EPA "threatened" to use its legal authorities to improve water quality to the extent necessary to achieve the TMDL if the states failed to use their authorities. Pl. Br. at 19-20. EPA did not "threaten" the states. It simply identified several actions (e.g., reducing WLAs for point sources subject to NPDES permitting) that the CWA and implementing regulations authorize EPA to take to achieve applicable water quality standards, if the states failed to propose and implement allocation schemes and pollutant reduction measures capable of achieving those standards. AR0000260-AR0000261. Significantly, Plaintiffs do not dispute EPA's legal authority to exercise any of those options. *See* Pl. Br. at 11.

Furthermore, Plaintiffs cite no law or facts that support their claims that EPA's possible or actual exercise of its statutory authorities resulted in coercion, improper federalization of the state WIPs, *id.* at 19, or violation of states' authorities under the scheme of cooperative federalism established by the CWA, *id.* at 3-5, 9-10, 25-26. Indeed, applicable law does not support Plaintiffs' allegations.

With respect to TMDLs, the CWA allows "tradeoffs" between WLAs and LAs; *e.g.*, as the effectiveness of nonpoint source controls increases, WLAs for point sources can be made less stringent. 40 C.F.R. § 130.2(i); *City of Arcadia v. EPA*, 265 F.Supp.2d 1142, 1144 (N.D. Cal. 2003).

The fact that a TMDL might allocate greater loading reductions to sources subject to CWA regulation in the absence of adequate state regulation of nonpoint sources, and that such action might yield unappealing consequences to certain stakeholders, does not deprive the state of a choice about whether to use its authority, and does not violate the CWA. *Pronsolino v. Marcus*, 91 F.Supp.2d 1337, 1355 (N.D. Cal. 2000), *aff'd sub nom.*, *Pronsolino v. Nastri*, *supra*. Moreover, by establishing TMDLs, EPA does not upset the balance of federal-state control established in the CWA by intruding into the states' traditional control over land use. *See Pronsolino*, 291 F.3d at 1140. As such, Plaintiffs' allegation that the

Bay TMDL might have some unidentified implications for the states' exercise of their police powers to regulate land use, Pl. Br. 27, 34, is unavailing. Accordingly, it was neither inappropriate nor "coercive" for EPA to have a dialogue with the states about whether their WIPs proposed allocations and reduction strategies to ensure attainment of the Bay's applicable water quality standards. AR0000265.

3. Bay TMDL allocations, no matter how detailed, are not binding on the states.

Contrary to Plaintiffs' allegation, EPA's inclusion of detailed WLAs and LAs in the Bay TMDL does not "reallocate the division of authority" between EPA and the states, Pl. Br. at 32, or lock in or override state implementation decisions, *id.* at 33. The LAs do not give EPA any regulatory authority over nonpoint sources, and states remain free to implement the LAs as they see fit. Similarly, WLAs for point sources in a TMDL are not independently "binding" on or enforceable against permittees. Only permit conditions themselves, like water quality-based effluent limitations ("WQBELs"), are binding and enforceable. As discussed, WLAs are "informational tools" that guide NPDES permit writers' decisions regarding the appropriateness of a WQBEL. WQBELs must be "consistent with the assumptions and requirements" of any available WLA, 40 C.F.R. § 122.44(d)(1)(vii)(B) but need not be "identical" to the WLA. *In re City of Moscow, Idaho*, No. 00-10, 2001 WL 988721 (EAB July 27, 2001). Accordingly,

even after establishment of the Bay TMDL, each Bay state retains discretion regarding how to implement the TMDL allocations.

Moreover, Plaintiffs' assertion that the Bay TMDL *improperly* incorporates detailed WLAs and LAs (Pl. Br. at 33-35) is contrary to EPA's long-standing regulations and to the court decisions over the last two decades upholding TMDLs with detailed WLAs and LAs. *E.g.*, *Dioxin/Organochlorine Ctr. v. Rasmussen*, No. C93-33D, 1993 WL 484888, * 5-6 (W.D. Wash. Aug. 10, 1993), *aff'd sub nom.*, *Dioxin/Organochlorine Ctr. v. Clarke*, 57 F.3d 1517 (9th Cir. 1995) ("EPA rationally determined to impose specific [WLAs] for chlorine-bleaching pulp mills"). Under EPA's TMDL regulations, a TMDL may specify LAs for particular nonpoint sources and WLAs for particular point sources. 40 C.F.R. § 130.2(g)-(i). *See also Anacostia Riverkeeper, Inc. v. Jackson*, 798 F.Supp.2d 210, 248-49 (D.D.C. 2011). These regulations are a reasonable interpretation of the CWA, which are entitled to *Chevron* deference. *Pronsolino*, 291 F.3d at 1133 (citing *United States v. Mead Corp.*, 533 U.S. 218, 226-27 (2001).

4. EPA's "backstop" allocation adjustments are no more binding on the states than other Bay TMDL allocations.

As discussed above, the Bay TMDL allocations are almost entirely based on the states' final Phase I WIPs, except for three instances in which EPA applied a so-called "backstop" allocation or adjustment to ensure that the WLAs and LAs would meet applicable water quality standards as required by the CWA and federal

regulations. AR0000270-AR0000277. Plaintiffs do not contest EPA's determination that these adjustments were necessary to meet standards, but instead argue that EPA's inclusion of adjusted allocations in the Bay TMDL improperly overrode "state decisions on implementation." Pl. Br. at 35-36. This argument is based on the same misreading of the law as Plaintiffs' objections to other detailed allocations, and must be rejected for the reasons discussed above. Specifically, none of the TMDL allocations – whether based on the state WIPs or not – dictates how the states implement the TMDL.

For example, EPA's adjustments in Pennsylvania's stormwater LA and West Virginia's agriculture LA do not require either state to implement particular control strategies to address those nonpoint pollution sources. The states may still attempt to achieve their TMDL allocations using measures they choose. The shift in load categorization in the final TMDL merely signals that – should the TMDL reduction targets not be met – EPA may exercise its independent statutory and regulatory authority[15] to designate certain sources as point sources needing NPDES permits, which EPA would do only if it determined such permits were appropriate under the

[15] EPA's residual designation authority is found in CWA Section 402(p)(2)(E), 402(p)(6), and 40 C.F.R. § 122.26(a)(9) (for designating stormwater point sources) and 40 C.F.R. § 122.23(c) (for designating Animal Feeding Operations as Concentrated Animal Feeding Operations).

CWA and necessary to ensure that Bay water quality standards would be met.[16] AR0000271-AR0000273.

Similarly, EPA's adjusted allocation for New York wastewater treatment plants does not require New York to adopt any particular implementation strategies. New York may elect to achieve its TMDL allocations through any combination of strategies affecting any combination of sources. If, however, the necessary reductions do not occur, EPA could use its oversight over the state's NPDES program to require more stringent effluent limitations in discharge permits for wastewater treatment plants.[17]

5. EPA's evaluation of whether state WIPs provided reasonable assurance that allocations would be achieved imposed no implementation requirements on the states.

Plaintiffs assert that "EPA lacks the authority under the CWA to require TMDL implementation under the banner of 'reasonable assurance.'" Pl. Br. at 37-38. This argument fails because (1) EPA's reasonable assurance analysis did not require implementation and (2) it did not impair the states' authority to decide whether and how to implement their TMDL allocations.

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[16] Designation of stormwater and CAFO point sources is accomplished either by informal rulemaking or by adjudication pursuant to the authority cited in fn. 15, *supra*. When by rule, designations would be final agency actions subject to judicial review. When by adjudication, designation would be challenged along with the permit issued pursuant to the designation.

[17] EPA permitting decisions are subject to judicial review under 33 U.S.C. § 1369(b).

EPA conducted the reasonable assurance analysis to determine whether the states' final Phase I WIPs were reasonably likely to achieve the target loads necessary to achieve applicable water quality standards. AR0000270. In those few instances where EPA determined that a state's final WIP did not provide adequate assurance, EPA adjusted sector allocations, as discussed in section II.B.4, above. Those adjustments, and their effect on the TMDL allocations, are not binding on the states. Accordingly, the reasonable assurance analysis resulted in no requirements on the states to implement the Bay TMDL, regardless of whether EPA applied an adjustment.

EPA also acted well within the scope of its authority in conducting a reasonable assurance analysis. While neither section 1313(d) nor EPA's TMDL regulations[18] expressly mention the phrase "reasonable assurance," application of the concept is consistent with EPA's CWA authority to ensure TMDLs are sufficient to meet water quality standards. .

Section 1313(d)(1)(C) requires that a TMDL be "established at a level necessary to implement the applicable water quality standard**s** . . . ." *See also* 40

[18] Without mentioning the term "reasonable assurance," EPA's TMDL regulations clearly embody the concept: "If Best Management Practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus the TMDL process provides for nonpoint source control tradeoffs." 40 C.F.R. § 130.2(i).

C.F.R. § 130.7(c)(1). Because, a TMDL calculates *and allocates* the maximum amount of pollutant loadings a waterbody can receive and still meet standards, a TMDL writer must decide *how* to apportion loadings between point and nonpoint sources under the TMDL cap. If there is a demonstration of "reasonable assurance" that the chosen nonpoint source load allocations "will in fact be achieved," the TMDL writer can conclude that the TMDL equation (TMDL = WLAs + LAs)[19] will yield a pollutant loading "sum" that is within the water quality standards-based loading cap.

Section 1311(b)(1)(C) and EPA's permitting regulations provide additional support for evaluating "reasonable assurance" in a TMDL. Section 1311(b)(1)(C) requires that point source permits contain effluent limits as stringent as necessary to meet applicable water quality standards. EPA's permitting regulations echo that requirement and, in addition, require that permits include effluent limits "consistent with the assumptions and requirements of any available [WLA] for the discharge" approved by EPA pursuant to 40 C.F.R. § 130.7. 40 C.F.R. § 122.44(d)(1)(vii)(A) & (B). For WLAs to serve as a basis for water quality-based effluent limits, they must be stringent enough so that (in conjunction with the waterbody's other loadings) they meet applicable water quality standards. In the absence of reasonable assurance that a TMDL's LAs will in fact be met, the

[19] 40 C.F.R. § 130.2(i)(TMDL defined as the "sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background.")

TMDL's WLAs cannot serve as an effective permitting guide. Such a demonstration ensures that an effluent limitation that is "consistent" with a TMDL's WLAs pursuant to § 122.44 (d)(1)(vii)(B) will also meet applicable water quality standards as required by section 1311(b)(1)(C) and § 122.44 (d)(1)(vii)(A)[20].

The need for reasonable assurance is not a new concept. EPA's very first TMDL guidance in 1991 spoke to the need for "reasonable assurance." Exhibit N at 15, 22 ("there must be reasonable assurances that nonpoint source reduction will in fact be achieved"). The need to demonstrate reasonable assurance was repeated in EPA 1997 guidance. AR0022979-AR0022980 ("each state should describe its plan for implementing load allocations for nonpoint sources"). It remains EPA's position to this day. EPA statutory guidance is entitled to deference under *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944).

Furthermore, EPA's allocation approach, as allowed by its regulations, results in more effective water quality planning because detailed WLAs and LAs can be "developed at the stage when both the State and the Agency are evaluating the health of an entire water body— i.e., when developing the TMDL—because the designers of the TMDL can more easily take into account all point sources and

[20] S*ee also* 33 U.S.C. § 1313(d)(4)(A)(permit limits in impaired waters may only be revised to be less stringent if the cumulative effect of all revised limits based on the TMDL "will assure" attainment of water quality standards.

attempt to divvy up acceptable pollution levels among them." *Anacostia Riverkeeper,* 798 F.Supp.2d at 250. This approach benefits the states, the public at large, and the environment by facilitating the most practicable means of achieving standards. This approach also benefits the regulated community by ensuring that allocations among pollutant sources are the result of a coordinated analysis of pollution from all sources.

B. EPA has authority under the CWA to establish wasteload and load allocations for upstream tributary states.

Plaintiffs claim that EPA's upstream allocations "are contrary to the CWA." Pl. Br. at 38-44. This is incorrect. Under the circumstance here, EPA's establishment of pollutant allocations to all sources and source categories in the watershed was consistent with the CWA and EPA's regulations.

EPA is not limited to establishing a TMDL and allocations only for waterbodies and sources within the boundaries of a single state. Nothing in the CWA or EPA's regulations expressly precludes EPA from allocating watershed-wide pollutant loads, especially where the waterbody in question resides in four states and is affected by pollutants from three other states, and where all seven states asked EPA to establish the TMDL and themselves collectively submitted allocations for sources throughout the watershed. EPA and its state partners determined that a comprehensive set of WLAs and LAs in the Bay TMDL would be the most effective and equitable way to apportion pollutant reduction

responsibilities. AR0000108-AR0000113; AR0000212; AR0000262-AR0000263. By consensus, the partners requested EPA to establish this watershed-scale TMDL and collaborated in its development, including submitting allocations to EPA for potential inclusion in the final TMDL. AR0000055-AR0000056.

Moreover, EPA's watershed-wide allocation approach is consistent with its role under CWA section 117 to "ensure that management plans are developed and implementation is begun" to meet the Bay's nutrient goals. 33 U.S.C. § 1267(g)(1). Assigning pollutant allocations throughout the watershed pursuant to the collaborative Bay TMDL development process provides the state partners with a complete set of allocation targets to guide their implementation efforts consistent with Congressional recognition that "the Chesapeake Bay is an *ecosystem that ignores State boundaries.*" *Supra* at pp. 7-8.

EPA's establishment of watershed-wide allocations also is consistent with 33 U.S.C. § 1313(d)(1)(C), which requires TMDLs to be established for impaired waterbodies "at a level necessary to implement the applicable water quality standards." Under EPA's regulations, WLAs must reflect the "portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources," 40 C.F.R. § 130.2(h), and LAs must reflect that "portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources." 40 C.F.R.

§ 130.2(g). In light of the facts presented here, EPA reasonably understood the "receiving waters" for this TMDL to be the 92 tidal segments of the Bay, 89 of which were identified as impaired on the tidal states' section 303(d) lists, three of which were tidally connected to impaired waters and possibly impaired. *See* pp. 10-11, *supra*. Furthermore, in light of the regulation's silence on the direct issue of assigning watershed-wide allocations, EPA reasonably interpreted the reference to "its" point and nonpoint sources to mean all watershed sources contributing nutrient and sediment loads to the Bay. It is not dispositive in deciding EPA's authority whether the upstream tributaries are "impaired" or appear on those states' section 303(d) lists. The crucial facts are (1) the "receiving waters" for which this TMDL was established[21] are impaired and (2) upstream sources contribute pollutants to the Bay. *See* AR0000923-AR0000924. In the context of this TMDL, EPA's interpretation that it was consistent with the CWA and regulations to include WLAs and LAs in upstream states is entitled to significant deference. *Auer v. Robbins*, 519 U.S. 452, 461 (1997); *see also Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410, 413–14 (1945).

[21] Contrary to Plaintiffs' assertion, Pl. Br. at 39, n.10, the Bay TMDL's upstream WLAs and LAs are not themselves TMDLs. They are, instead, components of the TMDLs EPA established for the 92 tidal segments of the tidal Chesapeake Bay referred to collectively as "the Bay TMDL." The Bay TMDL does not establish TMDLs for waterbodies "in the three headwater jurisdictions."

Plaintiffs contend that EPA should have addressed the Bay's problems in other ways by either (1) objecting to inadequate upstream state permits or (2) establishing "new water quality standards" for the upstream states to ensure the Bay's own standards are met. Pl. Br. at 44. EPA does not dispute it has the authority, under appropriate circumstances, to object to inadequate state permits, 33 U.S.C. § 1342(a)(5), or determine whether new water quality standards must be promulgated. 33 U.S.C. § 1313(c)(4). However, the existence of these authorities does not mean it was unreasonable or unlawful for EPA, in collaboration with the Bay states, to allocate in the Bay TMDL all the pollutant reductions "necessary to implement" the Bay's standards.

The fact that a headwater state's standards may not already be stringent enough under 40 C.F.R. § 131.10(b) to ensure implementation of the Bay's standards does not constrain EPA's authority under CWA section 303(d) to establish Bay TMDL allocations that are fully protective of the applicable downstream Bay standards. Significantly, when it included TMDL establishment authority in its own separate section of the Act, Congress gave no indication in either the text or legislative history that downstream TMDL establishment must await some predicate act by upstream states pursuant to section 303(c). See *Dioxin/Organochlorine Ctr.*, 57 F.3d at 1528 ("We reject the Mills' claim that,

prior to implementing TMDLs, § 1313(d) of the Act requires development and proven failure of BAT limitations for *toxic pollutants*").

Consistent with Congressional direction that EPA "ensure that management plans are developed and implementation is begun" and its permit oversight role under CWA section 402, EPA has committed to oversee Bay watershed permit issuance to ensure those permits are "consistent with" the Bay TMDL's WLAs. AR002373; AR0023276; AR0023281-AR0023284. Moreover, if the states' implementation efforts fall short, EPA has identified its authority under section 303(c) to determine whether to revise upstream standards if they are not stringent enough to protect local or downstream designated uses and criteria. AR0023273; AR0023277; AR0023281. However, neither of these actions provides the specific, up-front implementation planning guidance that the Bay TMDL's source-specific allocations do[22]. *Supra* at § II.A.

Plaintiffs argue that EPA's TMDL allocation authority is merely "derivative" of the individual state's authority under section 303(d). Pl. Br. at 39. This is not true. The Chesapeake Bay is an interstate waterbody impaired by pollutants from seven different states. Even assuming the individual Bay states

[22] Assigning upstream state allocations also was consistent with 40 C.F.R § 122.4(d) of EPA's permitting regulations, which requires that NPDES permits "ensure compliance with the applicable water quality requirements of all affected States," because the Bay TMDL's upstream allocations provide the information that upstream state permit writers need to ensure such compliance.

would not have the authority to establish WLAs for sources outside their own boundaries if they were establishing individual TMDLs, EPA is not constrained by such a limitation when it establishes a federal TMDL where all seven states, including the three upstream states, have by consensus (1) determined that significant pollutant reductions are necessary from sources throughout the watershed to attain applicable standards and (2) asked EPA to establish a watershed-wide TMDL to guide restoration of Bay water quality. In such circumstances, it was reasonable for EPA to incorporate the allocations developed by all the Bay states, including the upstream states, into the Bay TMDL.

Contrary to Plaintiffs' assertion, EPA's allocations to the upstream states are consistent with the Supreme Court's treatment of interstate waters issues in *Arkansas v. Oklahoma*, *supra*. In that case the Court held that EPA's permitting regulations reasonably imposed a requirement that upstream NPDES permit limitations and conditions be based on downstream standards. *Id.* at 107. Noting that "the statute clearly does not limit the EPA's authority to mandate such compliance," the Court held: "The regulations relied on by the EPA were a perfectly reasonable exercise of the Agency's statutory discretion. The application of state water quality standards in the interstate context is wholly consistent with the Act's broad purpose 'to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.'" *Id.* at 105-06 (citation omitted).

EPA's assignment of upstream allocations in the Bay TMDL is fully consistent with this goal.

III. EPA Complied with APA Notice and Comment Requirements

A. The 45-day public comment period did not violate the APA.

EPA properly exercised its discretion in establishing a 45-day comment period. Even in cases involving complex subjects, courts have routinely held that comment periods of 45 days and less are reasonable. *See, e.g., Connecticut Light & Power Co. v. NRC,* 673 F.2d 525, 534 (D.C. Cir. 1982) (30-day comment period); *Omnipoint Corp. v. FCC,* 78 F.3d 620, 629-30 (D.C. Cir. 1996) (7-day comment period); *Florida Power & Light Co. v. United States,* 846 F.2d 765, 772 (D.C. Cir. 1988) (15-day comment period); *North Am. Van Lines v. ICC*, 666 F.2d 1087, 1092 (7th Cir.1981) (45-day comment period); *Phillips Petroleum Co. v. EPA,* 803 F.2d 545, 558-59 (10th Cir. 1986) (45-day comment period). In such cases, comment periods are deemed reasonable where, as here, the public comments were numerous and extensive, the comments had an effect on the final agency action, and plaintiffs' lawsuit raised no substantive challenges that differed in kind from the public comments. *See, e.g., Florida Power & Light*, 846 F.2d at 772.

The 45-day comment period is particularly reasonable in light of the fact that the CBP partners had been engaged for over a decade in an open process that

encouraged public participation and accepted public input. *See, e.g., Omnipoint*, 78 F.3d at 629; *Phillips Petroleum*, 803 F.2d at 559. In fact, some of the Plaintiffs participated in some CBP workgroups and committees that had key roles in making modeling and other recommendations. *See, e.g.*, Exhibit C at 37-38. To the extent that Plaintiffs did not participate in these workgroups and committees, Plaintiffs could have availed themselves of these opportunities for participation at any time.

Further, the 45-day public comment period provided Plaintiffs ample time to submit comments. Indeed, Plaintiffs submitted a total of 141 comments raising many of the same issue in this lawsuit including 30 comments classified as "legal issue" comments and 27 on modeling issues. *See* AR0029851-AR0038060. EPA responded to each of those comments. AR0000639-AR0003788.

The authorities Plaintiffs cite in support of their claim that the 45-day public comment period was procedurally deficient are not dispositive because they apply to agency "rulemaking." (*See* Pl. Br. at 44, citing 5 U.S.C. § 553(c)). The Bay TMDL is an "informal adjudication" not a "rule" and as such does not require any particular notice and comment procedure. 5 U.S.C. § 555. In the absence of any statutory provision requiring a rulemaking or a formal adjudication, an agency can define its own procedures for conducting an informal adjudication. *See Pension Benefit Guar. Corp. v. The LTV Corp., Inc.*, 496 U.S. 633, 655-56 (1990).

Furthermore, courts are not free to impose additional procedural requirements. *See Vermont Yankee Nuclear Power Corp. v. NRDC,* 435 U.S. 519, 524 (1978).

B. EPA provided adequate documentation for the Watershed Model.

Plaintiffs contend the public did not have an opportunity to comment on the Watershed Model. They base this argument on the statement that the public did not have access to the "documentation" verifying and describing how the Bay Watershed Model was developed, calibrated and applied. Pl. Br. at 49.

"Documentation," when applied to computer models, is a term of art referring to a single document, generally comprising many chapters and appendices that include information about all stages of the model's life ranging from its development, set-up, calibration, and validation to its ultimate application(s). AR0000183. The documentation for the Watershed Model covered the period from its early development starting in 1999 through its final application in establishing the Bay TMDLs in December 2010. AR0014249-AR0014806.

Hundreds of pages of Watershed Model documentation were available to the public prior to and during the public comment period, and all of the Bay Watershed Model's calibration data were available to the public via the CBP partnership's website months prior to and throughout the public review process.[23] In addition,

[23] AR0000398-AR0000401. *See also, e.g.,* AR0015372-AR0015382, AR0015367-AR0015371.

the draft Bay TMDL document described the application of the full suite of partnership models and supporting tools, including the Watershed Model. AR0023922-AR0023962; AR0024175-AR0024200. All of this information was current for the version of the Watershed Model used to prepare the draft TMDL.

As one of the tools used by EPA in developing the final TMDL, EPA continued to apply the model during and after the public comment period. The final applications of the Watershed Model used to prepare the final Bay TMDL reflected the public comments received as well as the consideration of the final Phase I WIPs from the CBP partnership. AR0014249-AR0014806. The documentation reflecting final application of the Watershed Model in the TMDL could not be completed until public comments were reviewed and final decisions by the partnership were made. Consequently, complete documentation of the model, including the final applications, could not have been available during the public comment period.

EPA was not required to make the final model documentation available for public comment. "Agencies may develop additional information in response to public comments and rely on that information without starting anew 'unless prejudice is shown.'" *Personal Watercraft Indus. Ass'n v. Dep't. of Commerce*, 48 F.3d 540, 544 (D.C. Cir. 1995), quoting *Community Nutrition Inst. v. Block*, 749 F.2d 50, 58 (D.C. Cir. 1984). The party objecting has the burden of "indicat[ing]

with 'reasonable specificity' what portions of the documents it objects to and how it might have responded if given the opportunity." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 540-41 (D.C. Cir. 1983). Plaintiffs do not even attempt to explain how their comments on the Bay TMDL would have differed if the final Watershed Model documentation had been available during the public comment period.

Plaintiffs correctly note that the Watershed Model documentation available in September 2010 does not include estimated nutrient transport factors (Pl. Br. at 51) or edge-of-stream nutrient targets for conservation cropland (Pl. Br. at 52). However, Plaintiffs adduce no evidence that such estimates, if available in September 2010, would have altered their public comments on the draft TMDL. Plaintiffs seek remand to provide an opportunity for comment, but give no hint that such relief could benefit them. Accordingly, Plaintiffs have not demonstrated the requisite prejudice; their request must therefore be denied. *See Personal Watercraft Indus. Ass'n*, 48 F.3d at 544.

C. EPA provided adequate documentation for Scenario Builder.

Plaintiffs allege that EPA failed to make available to the public "key components" of Scenario Builder.[24] Pl. Br. at 47-49. Plaintiffs never identify

[24] Plaintiffs mischaracterize Scenario Builder as a "model." Because Scenario Builder does not simulate environmental processes, it is not a model in the same sense as the Watershed Model. Rather, Scenario Builder is better characterized as

those "key components," but assert broadly that, at the start of the public comment period on September 24, 2010, EPA made available only "a single document describing how the model [sic] was developed." *Id.* at 48. The record shows that this allegation is incorrect.

On September 16, 2010, prior to the start of the public comment period, EPA made available for public review the current information regarding Scenario Builder and provided in the draft TMDL a live URL link to the formal documentation for Scenario Builder.[25] AR0023947-AR0023948. Contrary to Plaintiffs' allegation, no data was "withheld" by EPA; EPA made all relevant information available in as near to "real time" as possible. AR0003568. EPA made the Scenario Builder code available through CBP websites on October 29, 2010, and made the supporting databases contained within Scenario Builder available November 1-5, 2010. AR0000929; AR0001314.

Furthermore, the underlying data for Scenario Builder were developed through hundreds of meetings/conference calls of the CBP partnership's technical

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a data pre-processor built on a set of linked databases containing partner provided data. AR0001532.

[25] Final documentation, which could be compiled only at the conclusion of the TMDL process, is in the record. AR0014807-AR0014937.

subcommittees and workgroups.[26] All these meetings were publicly noticed on the CBP partnership's website with dates, times, location, agendas and conference call numbers provided. AR0000422. Meeting materials were posted on-line before each meeting. *Id.* Summaries of each meeting are also posted on-line. *Id.*

While ongoing analysis by EPA resulted in new information becoming available near the end of the public comment period (in addition to the significant amounts of information already available), Plaintiffs do not explain how this specific new information was "key" to their ability to comment on the draft TMDL or how changes in the available information would have altered the comments they did make. Accordingly, Plaintiffs again have failed to carry their burden of establishing they were prejudiced by not being able to comment on the specified information, and their claim therefore should be dismissed. *See Personal Watercraft Indus. Ass'n*, 48 F.3d at 544.

D. EPA provided adequate documentation for the Water Quality and Sediment Transport Model.

Plaintiffs' allegation that EPA provided only "outdated" documentation for the Water Quality and Sediment Transport Model ("WQSTM") used in 2010 is simply wrong. Pl. Br. at 53-54.

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[26] *See* AR0000422-AR0000454 for complete list of meetings; *see e.g.*, examples where Scenario Builder was discussed: Exhibit K (AR0000433); Exhibit L (AR0000434); Exhibit M (AR0000434).

The WQSTM is composed of a series linked and nested models including: hydrodynamic model, estuarine water column model, sediment transport model, sediment/water interface and flux model, underwater Bay grasses model, bottom sediment dwelling biological community model, filter feeder model, phytoplankton model, and zooplankton model. Of these, only the sediment transport model was altered after 2002. Therefore, the documentation for the 2002 WQSTM was current for all the component models except for the sediment transport model. AR0016176-AR0016403; AR0015530-AR0015903.

As discussed above (§ III.B), final documentation for models includes documentation of management application of the model and final decisions by the CBP partnership. Therefore, the formal documentation for the WQSTM necessarily could not be complete in September 2010. However, all of the information necessary for the public to comment on the WQSTM was available during the public comment period. For example, the draft Bay TMDL references a number of papers that provide documentation for the sediment transport model. *See, e.g.*, AR0024131. As with the Watershed Model and Scenario Builder, all the CBP partnership meetings where the WQSTM was discussed were open to the public, and agenda, reports and minutes of those meetings were available on-line.[27]

[27] *See* AR0000422-AR0000454 (complete list of meetings). For examples where the WQSTM was discussed, see Exhibit K (AR0000433) and Exhibit L (AR0000434).

The WQSTM underwent independent scientific peer review in 2010 and the CBP partnership responded to the review panel's report. Both the panel report and the partnership's responses were publicly available in September 2010. AR0000237-AR0000243; AR0000605-AR0000614; AR0016404; AR0014959-AR0014963. In addition, draft documentation on the WQSTM was accessible during the public comment period through the extensive records of meetings and quarterly reviews of the partnership's Modeling Team, which were synthesized into a single report in December 2010. AR0016176-AR0016403; AR0015530-AR0015903.

Plaintiffs again have failed to carry their burden of establishing they were prejudiced by not being able to comment on the specified information, and their claim therefore should be dismissed. *See Personal Watercraft Indus. Ass'n*, 48 F.3d at 544.

IV. The Bay TMDL is neither Arbitrary nor Capricious.

Plaintiffs contend that all the allocations in the Bay TMDL are arbitrary and capricious because EPA based the allocations on flawed models and bad data. This argument is facially suspect because most of the detailed TMDL allocations were based almost entirely on allocations proposed by the Bay states in their Phase I WIPs. To the extent Plaintiffs argue that model and data defects made it arbitrary and capricious for EPA to rely on the allocations in the WIPs or to develop separate backstop allocations or adjustments, Plaintiffs' argument must be rejected.

A. The Administrative Record Shows a Rational Relationship between the Watershed Model and Real-World Conditions.

Plaintiffs allege broadly that the "models" EPA used to support allocations in the Bay TMDL were inadequate to the task, Pl. Br. at 54, yet their specific arguments are critical only of the Watershed Model, *id.* at 55-58. These arguments are premised on the notion that the Watershed Model was subject to some limitations – something common to all environmental models since they are only approximations of complex systems. Plaintiffs fail to demonstrate that the Watershed Model does not correspond to the relevant scientific elements of the Bay watershed.

It is well established that "administrative agencies have undoubted power to use predictive models," *Small Refiner Lead Phase-Down Task Force*, 705 F.2d at 535, and have wide discretion in choosing what data are needed in constructing such models, *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999) ("EPA typically has wide latitude in determining the extent of the data-gathering necessary to solve a problem."). EPA's decision to use an analytic model will be overturned only if "there is no rational relationship between the model chosen and the situation to which it is applied." *Am. Iron & Steel Inst. v. EPA*, 115 F.3d 979, 1005 (D.C. Cir. 1997)[28]; *see Dioxin/Organochlorine Ctr.*, 57 F.3d at 1524-25. The

[28] In *American Iron and Steel Institute*, the court conceded that the petitioner may have been able to prove that the agency's model was "poor," but refused to declare

courts generally defer to EPA with regard to the "fit between the facts and the model," scrutinizing the agency's application of a model only if a complaining party presents "specific detailed evidence" establishing that the model does not correspond to the reality to which it has been applied. *Chemical Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1265 (D.C. Cir. 1994).[29]

Plaintiffs' argument is based on two incorrect assertions: that "EPA developed" the WLAs and LAs in the TMDL "predominantly through modeling," Pl. Br. at 55, and that EPA applied the Watershed Model at the "local watershed scale," *id.* at 56.

In fact, EPA and the seven Bay states, working together, applied the Watershed Model at the basinwide scale. They then developed nitrogen, phosphorus, and sediment allocations by major river basin within each state -- scales fully consistent with the STAC independent scientific peer review panel's findings. In their WIPs, the seven Bay states developed proposed allocations at smaller scales, including local watersheds, using a combination of modeling results, programmatic implementation capabilities, monitoring data, land use

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the agency model arbitrary or capricious because the agency was able to provide a rational response to the petitioner's criticisms. 115 F.3d at 1005.

[29] The dispositive factor in *Chemical Mfrs. Ass'n* was EPA's inability to point to *any* record evidence that provided a rational relationship between the model used and the pollutant at issue. 28 F.3d 1264-65.

information, and other information. As discussed *supra*, EPA generally used the states' proposed allocations as the basis for the allocations in the final Bay TMDL.

Plaintiffs do not dispute EPA's determination – or the STAC review panel's findings – that the model is appropriately applied at the scale of the major river basins within each state. Accordingly, Plaintiffs have failed to show that EPA's use of the Watershed Model should not be entitled to the "extreme deference" courts apply to technical judgments within the agency's area of expertise. *See Huls Am. Inc. v. Browner*, 83 F.3d 445, 452 (D.C. Cir. 1996).

B. Inconsistencies in the Available Data do not make an Agency's Decision Arbitrary and Capricious.

Plaintiffs broadly allege that EPA relied on flawed data, but specifically focus their argument only on certain data concerning the use of conservation tillage practices and impervious areas for storage of manure. Pl. Br. at 59-63. While Plaintiffs assert that EPA's reliance on its own data was disadvantageous to them, they offer no evidence that EPA's reliance on that data was arbitrary. EPA, on the other hand, explained the reasons for its decisions to use the relevant data – and those decisions are entitled to deference.

The Third Circuit has held that "a reviewing court 'must generally be at its most deferential' when reviewing factual determinations within an agency's area of expertise." *Southwestern Pennsylvania Growth Alliance v. Browner*, 121 F.3d 106, 117 (3d Cir. 1997). Under this general principle, "the choice of scientific data

and statistical methodology to be used is best left to the sound discretion of the Administrator." *Nat'l Ass'n of Metal Finishers v. EPA*, 719 F.2d 624, 657 (3d Cir. 1983), *rev'd on other grounds sub nom., Chem. Mfrs. Ass'n v. NRDC*, 470 U.S. 116 (1985). This deference extends to the agency's decision to rely on data even though it is contradicted by other data. *See In re Three Mile Island Alert, Inc.*, 771 F.2d 720, 737-38 (3d Cir. 1985) (deference was given to a commission's decision to disregard statistical data from a petitioner's study and instead rely on earlier studies to come to a conclusion in an informal adjudication); *Pa. Dept. of Envtl. Res. v. EPA*, 932 F.2d 269, 272 (3d Cir. 1991) ("On the merits of the EPA's refusal to consider the updated point source data, we defer to its expertise."); *Tri-Bio Laboratories, Inc. v. United States*, 836 F.2d 135, 142 (3d Cir. 1987) (court deferred to agency expertise in refusing to accept updated data from a state's plan under the Clean Air Act).

Plaintiffs' assertion that EPA chose the wrong data to estimate the amount of conservation tillage on cultivated cropland is not supported by the record. EPA used conservation tillage data provided by the USDA-funded Conservation Technical Information Center at Purdue University (1985-2002) and by six of the Bay states (2003-2007), because it was more detailed and comprehensive than the data used by NRCS. AR0000184-AR0000185. The conservation tillage data, as well as the agricultural portion of the CBP Watershed Model, is based in part on

USDA county-level agricultural census data from thousands of farms from 1982-2007. AR0029737; AR0000184-AR0000187. On the other hand, the NRCS data on conservation tillage, was based on surveys of a sample of approximately 200 farms located across the Bay watershed, covered only four years, and provided information only at the scale of four large watersheds—Susquehanna River, Potomac River, upper Chesapeake Bay, and lower Chesapeake Bay—for the entire Chesapeake Bay basin.

Plaintiffs' suggestion that EPA failed to consider the other allegedly conflicting data in applying the Watershed Model is wrong. EPA staff worked with the USDA for approximately six months, comparing the methods and findings of the Watershed Model and USDA's Conservation Effects Assessment Project ("CEAP"). AR0029765-AR0029768; AR0029773-AR0029777; AR0029805-AR0029809; AR0029841-AR0029842. EPA evaluated the differences and similarities between the EPA model and draft CEAP report. AR0029752-AR0029759; AR0029735-0029738. EPA found – and USDA agreed – that both modeling efforts had resulted in similar findings regarding nitrogen and sediment loads from agricultural lands. *Id*.; AR0029777. Differences between the model results were due to the fact that the two models were designed for different purposes and were based on different factors used to create each model – including

but not limited to modeling scale, input data, assumptions, and process representations. AR0029752-AR0029759; AR0029735-AR0029738.

Lastly, Plaintiffs mischaracterize EPA's data regarding the contribution of nitrogen and phosphorus from manure at animal feeding operations. Pl. Br. at 62. EPA determined that approximately 15-21% of manure is lost during routine handling and storage. Contrary to Plaintiffs' allegation, EPA did not assume that all nutrients from operational manure losses flow directly into nearby waters. Instead, EPA's data reflect reductions in nutrients due to natural processes such as runoff flows from feeding operations to streams, and that only a portion of nitrogen and phosphorus contained in the 15-21% of manure losses actually enters adjacent streams. AR0016176-AR0016403.

Although not all data considered by EPA reflected identical results, EPA's resolution of any conflicts between the data is entitled to deference, and should be upheld. *See, e.g., In re Three Mile Island Alert, Inc.*, 771 F.2d at 737-38.

CONCLUSION

Plaintiffs' claims should be dismissed because Plaintiffs have failed to demonstrate they have standing. If their claims are not dismissed, this court should enter judgment in favor of EPA on each of Plaintiffs' claims. For the reasons discussed above, EPA did not exceed its authority in issuing the Bay TMDL; the public had a fair opportunity to comment on the draft Bay TMDL and Plaintiffs

have not attempted to prove that they were prejudiced by any alleged deficiencies in the massive amounts of publicly available information; and EPA's use of models and its selection of data was not arbitrary and capricious.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to Local Rule 7.8(b)(2), the undersigned certifies that the foregoing Memorandum in Opposition to Plaintiffs' Motion for Summary Judgment and in Support of EPA's Cross-Motion for Summary Judgment complies with the word count limit and does not exceed the allotted 14,000 words. According to the word count feature of the word-processing software used to prepare this Memorandum, the Memorandum contains 13,426 words.

/s/ Kent E. Hanson
Kent E. Hanson

CERTIFICATE OF SERVICE

I certify that on March 27, 2012, a copy of the foregoing Memorandum in Opposition to Plaintiffs' Motion for Summary Judgment and in Support of EPA's Cross-Motion for Summary Judgment was served by electronic service via the Court's ECF system pursuant to Standing Order 03-1, ¶ 12 upon:

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