

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

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ANACOSTIA RIVERKEEPER, INC.	)	
and FRIENDS OF THE EARTH,	)	
	)	
Plaintiffs,	)	
v.	)	Case No. 1:09-cv-00097-RWR
	)	
LISA JACKSON, Administrator,	)	
United States Environmental Protection Agency,	)	
	)	
Defendant.	)	
_____	)	

**MEMORANDUM IN SUPPORT OF  
EPA’S CROSS-MOTION FOR SUMMARY JUDGMENT AND  
REPLY TO PLAINTIFFS’ MOTION FOR SUMMARY JUDGMENT**

## INTRODUCTION

In this case, Plaintiffs challenge an improved pollutant budget for the Anacostia River that follows all of the instructions and holdings of this Court and of the D.C. Circuit in two separate decisions. That pollutant budget is a second, improved total maximum daily load (“TMDL”) for sediment, or “total suspended solids” (“TSS”), in the Anacostia River. Maryland and the District of Columbia submitted that TMDL to EPA, and EPA approved it in 2007. The new Anacostia TSS TMDL calls for an 85% reduction in the amount of sediment that enters the Anacostia and is expected to achieve all of Maryland’s and the District of Columbia’s water quality standards for sediment. Moreover, it complies with the D.C. Circuit’s instructions concerning TMDLs in *Friends of the Earth v. EPA*, 446 F.3d 140 (D.C. Cir. 2006) (*Friends of the Earth II*), and otherwise incorporates or improves upon the same methods and judgments that this Court previously *upheld* against challenges that were similar to Plaintiffs’ here. *See generally Friends of the Earth v. EPA*, 346 F. Supp. 2d 182 (D.D.C. 2004) (*Friends of the Earth I*), *rev’d on limited grounds*, 446 F.3d at 142 (D.C. Cir. 2006). The TMDL also allocates pollutant allowances to all the sources that the Clean Water Act requires, and contains a margin of safety that satisfies the statute. For these reasons, EPA’s action in approving the TMDL should be upheld, Plaintiffs’ motion for summary judgment should be denied, and EPA’s cross-motion for summary judgment should be granted.

## BACKGROUND

### A. The Clean Water Act Context For the Development of TMDLs

The Clean Water Act, 33 U.S.C. § 1251 *et seq.* (“CWA”), establishes a federal legal structure for the protection of the waters of the United States in which both states and the federal government play an important role. The Act directs each State, with federal approval and

oversight, to promulgate water quality standards for its waters. *Id.* § 1313(a), (b), (c)(1). The Act provides that water quality standards consist of a determination of the “designated uses” of the relevant waters, and “water quality criteria” that are intended to render the waters suitable for their designated uses. *Id.* § 1313(c)(2)(A).

Under the Act, no person may discharge any pollutant into covered waters except in compliance with the Act, which usually means pursuant to a National Pollutant Discharge Elimination System (“NPDES”) permit. *Id.* § 1311(a). EPA or a duly authorized State may issue such permits, which limit the amount of pollutants that may be discharged by a “point source,” such as a pipe. *Id.* §§ 1342(a), (b), 1362(14). Those permits must establish effluent limitations for point sources as necessary to ensure that water quality will be attained or maintained in the relevant water. *Id.* § 1311(b)(1)(C). At a minimum, effluent limitations must be based upon any nationally applicable technology-based requirements that may be appropriate for the point source in question, but they must be more stringent than technology-based requirements would dictate if necessary to meet water quality standards. *Id.*

The Act also requires each State to determine whether any of its waters do not meet water quality standards, and are not expected to do so even after technology-based limitations are implemented. *Id.* § 1313(d)(1)(A). If not, then the waters are considered “impaired,” and are identified or “listed” under Section 303(d) of the Act. *Id.* Listing a body of water as impaired triggers the requirements of the CWA that are at issue in this case. For any such water body, a State must establish a “total maximum daily load,” or “TMDL,” for any pollutant that causes the impairment. *Id.* § 1313(d)(1)(C). That TMDL represents the maximum amount of a pollutant that a segment of water can receive from all combined sources and still meet water quality standards. *Id.* Specifically, the CWA provides that:

Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

*Id.* A State must submit its TMDL to EPA, and EPA must approve or disapprove the TMDL.

*Id.* § 1313(d)(2). By regulation, EPA has promulgated more detailed requirements that States must meet in developing TMDLs. *See* 40 C.F.R. §§ 130.2(g)-(i), 130.7; *see generally* *Sierra Club v. Meiburg*, 296 F.3d 1021, 1025-26 (11th Cir. 2002) (describing the process of listing impaired waters and developing TMDLs).

The development of a TMDL is a complex and technical process. Pollutants may enter a water body through “nonpoint sources,” such as unchanneled surface runoff, which are not regulated under the Act, or through “point sources,” such as pipes.<sup>1</sup> According to EPA’s regulations, the “total maximum daily load” that applies to a water segment is the sum of the “load allocations” of pollutants from nonpoint sources, the “wasteload allocations” of pollutants from point sources, and natural background levels of the pollutant. *See* 40 C.F.R. § 130.2(g)-(i). The TMDL and its constituent load and wasteload allocations are therefore generally developed simultaneously, often using computer models that simulate the natural background levels of a pollutant and the amount of pollutants entering a stream at a variety of points along its course. This process allows the States and EPA to account for the accumulation of pollutants from individual sources or groups of sources over the length of a stream.

TMDLs function as “primarily information tools.” *Pronsolino v. Nastri*, 291 F.3d 1123, 1129 (9th Cir. 2002). They are not self-executing and do not by themselves require or prohibit any

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<sup>1</sup> The Act defines “point source” as “any discernible, confined and discrete conveyance,” such as a “pipe, ditch, [or] channel . . . from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14).

actions. Instead, the TMDL sets a pollutant reduction goal to be implemented through individual NPDES permits or nonpoint source controls. *Meiburg*, 296 F.3d at 1025. Even in the absence of a TMDL, an NPDES permit must impose effluent limits that are sufficiently stringent to meet water quality standards. 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d)(1)(vii)(A). Where an approved TMDL exists, the wasteload allocations it contains help state and federal regulators establish appropriate effluent limits for NPDES permits. *See* 40 C.F.R. § 122.44(d)(1)(vii)(B) (requiring that NPDES permits be “consistent with the assumptions and requirements” of a TMDL’s wasteload allocations).

## **B. The Factual Background of the Anacostia TSS TMDL**

### **a. The 2002 TMDL for TSS in the Anacostia**

Both the District and Maryland have identified the Anacostia as impaired for TSS. *See* TMDL Report at v.<sup>2</sup> The majority of the sediment load that causes this impairment enters the Anacostia during episodic and unpredictable storm events, because the Anacostia flows through developed areas in which impervious surfaces (such as roofs and pavement) cause high volumes of storm water discharges and runoff. *Id.* at 10. As a result, when those storm-related flows occur, the high volume of water rushing through stream beds and channels erodes those

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<sup>2</sup> In this Motion, EPA frequently refers to the following documents: Maryland Department of the Environment and District of Columbia Department of the Environment, “Total Maximum Daily Loads of Sediment/Total Suspended Solids for the Anacostia River Basin” (June 22, 2007) (“TMDL Report,” attached hereto as Exhibit 1); U.S. Environmental Protection Agency, “Decision Rationale, Total Maximum Daily Loads, Anacostia River Basin Watershed for Sediment/Total Suspended Solids” (July 24, 2007) (“Approval Decision,” attached hereto as Exhibit 2); Maryland Department of the Environment and District of Columbia Department of the Environment, “Comment Response Document Regarding the Total Maximum Daily Loads of Sediment/Total Suspended Solids in the Anacostia River Watershed” (June 21, 2007) (“Response to Comments,” attached hereto as Exhibit 3).

channels, carrying more sediment into the river. *Id.* This erosion is the source of approximately 73% of the Anacostia's current sediment load. *Id.*

EPA first established a TMDL for total suspended solids in the Anacostia in 2002.<sup>3</sup> Because of the unpredictable fluctuations that typically occur in sediment load, the 2002 TMDL identified a "seasonal average daily concentration" of TSS that EPA concluded would be sufficient to implement the applicable water quality standards. *See generally Friends of the Earth I*, 346 F. Supp. 2d at 186. Other features of the 2002 TMDL were similar to the TMDL that is at issue in this case. In particular, EPA used as its benchmark the water quality standard for protection of aquatic life, reasoning that meeting that standard would also lead to attainment of the other applicable water quality standards. *Id.* at 200. EPA also incorporated an implicit margin of safety into the 2002 TMDL by using conservative assumptions in its computer modeling, and employed limited aggregation of sources (specifically individual municipal separate storm sewer system outfalls) in identifying wasteload allocations for the TMDL. *Id.* at 199, 202.

In *Friends of the Earth I*, one of the plaintiffs in the present case challenged the 2002 TMDL on all of these points. Judge Urbina of this Court upheld the TMDL in a lengthy opinion that addressed each of these issues. In summary, he held that: (1) EPA legitimately used a seasonal average to express its TMDL for TSS in the Anacostia, *id.* at 194-95; (2) the use of an implicit margin of safety in the form of conservative modeling assumptions was acceptable, *id.* at

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<sup>3</sup> If a State submits a TMDL and EPA does not approve it, EPA is required to establish the TMDL in the State's stead. *See* 33 U.S.C. § 1313(d)(2). In *Kingman Park Civic Ass'n v. EPA*, 84 F. Supp. 2d 1, 5-7 (D.D.C. 1999), this Court held that EPA's obligation to establish the TMDL may also be triggered when a State fails to submit any TMDLs over a sufficiently long period that it has made a "constructive submission" of no TMDLs. EPA agreed to establish the 2002 Anacostia TSS TMDL in response to this holding.

199; (3) EPA reasonably concluded that a TMDL developed to support a water quality standard for aquatic life would also meet other applicable water quality standards, including narrative criteria, *id.* at 200-02; and (4) EPA was entitled to interpret its own regulations to allow for the assignment of a single wasteload allocation to a municipal stormwater system that includes multiple outfalls, *id.* at 202-03.

Friends of the Earth appealed Judge Urbina's ruling to the D.C. Circuit on the issues of the seasonal average TMDL and the achievement of narrative criteria (points 1 and 3 listed above), but did not ask the D.C. Circuit to review Judge Urbina's conclusion with respect to the margin of safety or the wasteload allocation for stormwater systems (points 2 and 4). *See Friends of the Earth II*, No. 05-5015, Final Opening Brief of Petitioners (available at [www.earthjustice.org/library/legal\\_docs/FoE-Anacostia-TMDL-brief-8-26-05.pdf](http://www.earthjustice.org/library/legal_docs/FoE-Anacostia-TMDL-brief-8-26-05.pdf)). The D.C. Circuit reversed on only the first issue, the question of whether it is permissible for EPA to express a "total maximum daily load" in the form of a seasonal average. *Friends of the Earth II*, 446 F.3d at 142. The D.C. Circuit did not address any of the other issues that Friends of the Earth had raised, but remanded the case to this Court with instructions to vacate the 2002 TMDL after giving EPA a reasonable opportunity to amend it "to establish daily load limits." *Id.* at 148.

b. Development of the 2007 TMDL at issue here

Following the D.C. Circuit's ruling, the District and Maryland established, and EPA approved, the TMDL at issue here. The 2007 TSS TMDL corrects the only flaw that the D.C. Circuit identified in the 2002 TMDL, in that it contains daily load limits. It also incorporates a number of improvements over the prior TMDL.

As discussed above, the starting point for the 2007 Anacostia River TSS TMDL is the set of water quality standards for the Anacostia River that have been adopted by the District and

Maryland. The District's water quality standards include several narrative water quality criteria, providing that its waters shall be free from substances causing "objectionable . . . turbidity," and that "the aesthetic qualities" of waters shall be maintained. 21 C.D.C.R. § 1104.1, .4. However, it has also further elaborated upon these narrative criteria by defining numeric criteria "that shall be met to attain and maintain designated uses." *Id.* § 1104.8. The District adopted two numeric criteria for TSS: waters may not have greater turbidity than 20 Nephelometer Turbidity Units ("NTU") above the ambient background turbidity, and they must have an average Secchi depth of 0.8 meters over the period from April 1 to October 31 (the growing season for submerged aquatic vegetation). *Id.* Table 1.<sup>4</sup> The District has also provided that for waters with multiple designated uses, "the most stringent standards or criteria shall govern." *Id.* § 1104.2.

Maryland has also adopted water quality standards that apply to the Anacostia, but those standards are not relevant in this case. In developing the TMDL, the District and Maryland agreed that "sediment load reductions required to meet DC's water clarity criterion for DC tidal waters are significantly larger than load reductions necessary to meet MD's water quality standards." TMDL Report (Ex. 1), at 21; *see also* Approval Decision (Ex. 2) at 3-4. As a result, a TMDL that meets the District's water quality standards will also satisfy Maryland's. Plaintiffs do not challenge this conclusion or make separate arguments based on Maryland's standards.

The District selected the seasonal Secchi depth criterion as the "most stringent" numeric water quality criterion for TSS, and therefore used this as the target criterion that the TMDL must attain. *See* Approval Decision (Ex. 2) at 3-4. The District and Maryland then used

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<sup>4</sup> A "Secchi disk" is a black and white disk that is lowered into water. A "minimum Secchi depth" of 0.8 meters means that the water is sufficiently clear that the Secchi disk is still visible after it has been submerged to a depth of 0.8 meters.



sophisticated computer models to determine the maximum daily amount of sediment that could enter the river and still allow the seasonal average clarity required by the District's Secchi depth criterion. *Id.* at 5, 17-19, 23.<sup>5</sup> Part of the complexity of these calculations is due to the fact that sediment, like some other pollutants, enters the Anacostia from point and nonpoint sources in infrequent spikes associated with runoff from major storm events. *See* TMDL Report (Ex. 1) at 10-11. The computer models incorporated conservative assumptions about the pollutant dynamics and control effectiveness that the TMDL would achieve, thereby creating an implicit margin of safety. *See* Approval Decision (Ex. 2) at 32-33. In the record, the District and Maryland identified wasteload allocations for "specific point sources," except that the District and Maryland followed EPA guidance in assigning one wasteload allocation to certain "large systems" such as storm sewer systems, which may have "many hundreds, possibly thousands" of outfalls. Response to Comments (Ex. 1), at 19-20; *see also* "Technical Memorandum: Significant Sediment Point Sources in the Anacostia River Watershed" (June 13, 2007), at 3-4 ("Technical Memorandum," attached hereto as Ex. 4).

While the 2007 TSS TMDL is similar to the 2002 TMDL in many respects, it also incorporates substantial improvements. Most importantly, the earlier TMDL covered only the District of Columbia portion of the Anacostia, which accounts for only about 20% of the river's watershed. The 2007 TMDL was jointly developed by the District and Maryland to cover the

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<sup>5</sup> The maximum daily load is not simply the maximum seasonal load divided by the number of days in the season. Because sediment loads are highly variable over the course of a season, a water quality criterion that is expressed as a seasonal average may be attained even if there is a high daily load on a small number of days during the season. *See* Approval Decision (Ex. 2) at 23. This phenomenon explains why, as Plaintiffs point out, the maximum daily load can be set at a substantial percentage of the total annual or seasonal limit. *See* Pl. Mot. at 11; Response to Comments (Ex. 3) at 17.

entire watershed, greatly increasing the value of the TMDL as a planning document for all of the Anacostia's respective jurisdictions. *See* Approval Decision (Ex. 2) at vii. In addition, the computer model that was used for the 2002 TMDL was upgraded in several ways, including by the incorporation of a proprietary model used by the District of Columbia Water and Sewer Authority ("D.C. WASA") to estimate discharges from some sewer system outfalls. *Id.* at 14. Overall, the 2007 TMDL is targeted to achieve an 85% reduction in the Anacostia's sediment load, a more stringent reduction than the 77% reduction that the 2002 TMDL was intended to achieve. *Compare id.* at 25 with *Friends of the Earth I*, 346 F. Supp. 2d at 186.

The 2007 TMDL was designed to correct the "daily load" defect identified by the D.C. Circuit, to take advantage of improvements in coordination and technology among the District, Maryland, and D.C. WASA, and to incorporate those features of the 2002 TMDL that Judge Urbina upheld against Friends of the Earth's challenge. EPA concluded that the TMDL is "consistent with statutory and regulatory requirements and EPA policy and guidance," and approved it on July 24, 2007. *See* Approval Decision (Ex. 2) at ix, 21-36.

## **STANDARD OF REVIEW**

### **A. Standard For the Cross-Motions for Summary Judgment**

The Court may decide this case on summary judgment if the pleadings and the administrative record show that "there is no genuine issue as to any material fact." Fed. R. Civ. P. 56(c). The Court must draw all available inferences in favor of the non-moving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). The present case involves a claim that EPA's final action approving the Anacostia TSS TMDL was arbitrary, capricious, or contrary to law under the Administrative Procedure Act, 5 U.S.C. § 706(2)(A). This case must therefore be decided on the administrative record before EPA at the time it made the Approval

Decision. *See Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 419 (1981). Here, there is no dispute as to the contents of the administrative record, and the Court is not called upon to determine whether there is any genuine issue of material fact. *See* Loc. R. Civ. P. (7)(h) and Comment. Instead, the Court should grant summary judgment for EPA if the administrative record demonstrates that EPA's Approval Decision meets the standard of the Administrative Procedure Act.

### **B. Standard For Assessing EPA's Approval Decision Under the APA**

The Court must grant summary judgment for EPA unless it determines that the Approval Decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," specifically the Clean Water Act. 5 U.S.C. § 706(2)(A). This is a narrow standard of review under which "a court is not to substitute its judgment for that of the agency." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The Court should not "set aside an agency [action] that is rational, based on consideration of the relevant factors and within the scope of the authority delegated to the agency by the statute." *Id.* at 42. Rather, the Court should defer to EPA's judgment on the issues before it, as long as EPA has "examine[d] the relevant data and articulate[d] a satisfactory explanation for its action." *Id.* at 43. EPA's explanation of its own actions need not be elaborate, and may be of "less than ideal clarity" as long as it can be "reasonably discerned" from the administrative record. *Bowman Transp., Inc. v. Arkansas-Best Freight System, Inc.*, 419 U.S. 281, 286 (1974). *See also generally Friends of the Earth I*, 346 F. Supp. 2d at 187-88.

### **C. The Effect of Judge Urbina's Ruling in *Friends of the Earth I***

In applying the APA standard of review here, the Court should carefully consider Judge Urbina's ruling in *Friends of the Earth I*. EPA believes that Judge Urbina applied the

appropriate mix of independent analysis and deference to EPA that the prevailing standard of review demands, and he concluded that EPA acted reasonably with respect to several of the issues that are now before the Court. Where EPA made those same decisions in approving the 2007 TSS TMDL, relying on Judge Urbina's holdings, those decisions are entitled to the same degree of deference from this Court.

It is true that *Friends of the Earth I* was reversed by the D.C. Circuit, but only on issues that are not implicated in this case. As a result of the D.C. Circuit's reversal on other grounds, *Friends of the Earth I* is not binding upon this Court. See *J.S. v. District of Columbia*, 533 F. Supp. 2d 160, 162 & n.3 (D.D.C. 2008) (citing 18-134 Moore's Federal Practice-Civil, § 134.02[1][d] (2006)). Although an opinion that has been vacated "has no precedential authority whatsoever," an opinion that is "reversed on other grounds" may still be cited for those propositions that the reviewing court did not find erroneous. *Durning v. Citibank, N.A.*, 950 F.2d 1419, 1424 n.2 (9<sup>th</sup> Cir. 1991); see also, e.g., *Central Pines Land Co. v. United States*, 274 F.3d 881, 893 & n.57 (5<sup>th</sup> Cir. 2001) (noting that a decision that is "reversed on other grounds" may still be precedential, as opposed to an opinion that has been vacated).

The D.C. Circuit did not vacate *Friends of the Earth I*, but only reversed it. See *Friends of the Earth II*, 446 F.3d at 142. And that reversal was based only on the "daily load" issue that is not relevant to the present case. *Id.* For every citation to *Friends of the Earth I* that appears in the discussion below, therefore, a notation would be appropriate that it was reversed *on other grounds*. Specifically, Judge Urbina's opinion is the most recent authority on three issues that are directly relevant to the present case: the use of the Secchi depth standard to address narrative criteria, the use of an implicit margin of safety based on conservative assumptions, and the identification of an aggregate wasteload allocation for municipal sewer systems. With respect to

the first of these three issues, the D.C. Circuit was silent. With respect to the second and third of these issues, Friends of the Earth did not even claim that Judge Urbina committed any error. As a result, this Court should consider the decision in *Friends of the Earth I* to be strongly persuasive with respect to those issues.

## ARGUMENT

### **A. EPA Reasonably Approved the Conclusion That the TMDL Will Meet All Applicable Water Quality Standards.**

Plaintiffs make two primary arguments in support of their contention that the TMDL based on the 0.8 meter Secchi depth criterion is inconsistent with the Act. First, they claim that even if the Secchi depth criterion is the most stringent numeric criterion, the TMDL fails to meet other applicable water quality standards. Second, they claim that, even if a TMDL based upon the Secchi depth criterion is *generally* sufficient to meet those water quality standards, it will allow periodic short-term loads in excess of those standards when storm events wash large quantities of sediment into the Anacostia. EPA will address each of those arguments in turn,<sup>6</sup> demonstrating that the Anacostia TSS TMDL is sufficiently stringent to meet all applicable water quality standards, and that those standards do not have to be met on every single day, including during storm events.

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<sup>6</sup> Plaintiffs' Motion presents these arguments at pp. 9-17. The sections numbered 1 and 2 in the text of this section do not correspond exactly to subsections A and B of Plaintiffs' brief (pp. 9 and 16, respectively), because Plaintiffs include some arguments about short-term violations of water quality standards in both of those sections. EPA's response to all of those arguments about alleged short-term violations of water quality standards is included in Section 2 of the text. *See infra* p. 21-25.

1. The Secchi depth criterion is a sufficient basis for the TMDL because it is the most stringent of the applicable water quality standards.

Plaintiffs first argue that EPA erred by approving a TMDL that they claim takes into account *only* the water quality criteria for the protection of submerged aquatic vegetation. Plaintiffs do not dispute that the TMDL, as approved, is designed to reduce sediment in the Anacostia by 85%, or that it is adequately designed to meet the seasonal Secchi depth criterion. Rather, they contend that EPA should have separately analyzed each of the relevant water quality standards, including all applicable designated uses and the narrative criteria described on pp. 7-8 above, and that EPA has not demonstrated that the TMDL will meet those standards. The key narrative criteria at issue are the District's criteria that its waters be free of substances in amounts that cause "objectionable . . . turbidity," and that "the aesthetic qualities" of its waters "be maintained." 21 C.D.C.R. § 1104.1, .4. Plaintiffs claim that the TMDL that EPA approved will not meet those standards. *See* Pl. Mot. at 9-16.

Plaintiffs are not correct that the TMDL "exclude[s]" protection of all water quality standards" except the aquatic life standard. Pl. Mot. at 9. Rather, Maryland and the District reasonably used a single criterion as the TMDL's "end point," because satisfying that criterion will also ensure that other applicable standards are met. The District's water quality standards provide that "[f]or the waters of the District with multiple designated uses, the most stringent standards or criteria shall govern." 21 C.D.C.R. § 1104.2. The Clean Water Act permits EPA to use surrogates to establish pollutant limits if EPA shows that control of those surrogates will also reasonably control the target pollutant to the required level. *See, e.g., NRDC v. Muszynski*, 268 F.3d 91, 100-01 (2d Cir. 2001) (finding it reasonable to develop a TMDL using a particular

numeric criterion if that criterion will allow other water quality standards to be met); *cf. Sierra Club v. EPA*, 353 F.3d 976, 985 (D.C. Cir. 2004) (upholding the use of surrogate pollutants).

The record shows that Maryland and the District determined that the District's Secchi depth criterion would achieve "the most stringent reduction in sediment loads." TMDL Report (Ex. 1) at vi. They also concluded that a TMDL meeting the District's Secchi depth criterion of 0.8 meters, averaged over the submerged aquatic vegetation growing season, would also meet the other aesthetic and turbidity standards that apply to the Anacostia. *See id.* at 23; Approval Decision (Ex. 2) at 3-4. Because that conclusion was reasonable, and because the District and Maryland adequately responded to dissenting comments in the record, see Response to Comments (Ex. 3) at 16-18, it was also reasonable for EPA to approve the TMDL based on that analysis.

*a. The Secchi depth criterion is more stringent than the narrative criteria.*

With respect to implementing the narrative water quality standards, the District and Maryland concluded that the TMDL would reduce sediment in the Anacostia by 85% compared to the years during which data was collected. Response to Comments (Ex. 3) at 16. EPA found that such a reduction would "profoundly" improve water quality in the Anacostia and that it would "achieve the applicable water quality standards," including narrative criteria. Approval Decision (Ex. 2) at 3.

Plaintiffs do not dispute this estimate of the improvement in sediment load; rather, they offer the opinions of their members that even an 85% reduction in sediment will allow the river

to remain “impaired” for purposes of water recreation. *See* Pl. Mot. at 10-11.<sup>7</sup> This amounts to a difference of opinion between Plaintiffs and the District over what is necessary to meet the District’s own non-numeric, subjective criteria. In describing such narrative criteria, including the criterion that waters be free from “objectionable . . . turbidity,” EPA has stated that “[a] rationale for these qualities cannot be developed with quantifying definitions.” *See* U.S. Environmental Protection Agency, *Quality Criteria for Water* (May 1, 1986), at 15 (available at [www.epa.gov/waterscience/criteria/goldbook.pdf](http://www.epa.gov/waterscience/criteria/goldbook.pdf)). Rather, decisions concerning aesthetic qualities should be made “in the public interest” and provide “minimal” requirements for freedom from pollution. *Id.* Here, the District’s and Maryland’s decision that an 85% reduction in sediment would achieve the aesthetic water quality criteria comports with these stated purposes. Moreover, during the period from April 1 until October 31 – the time when demand for recreational use of the Anacostia is likely to be greatest – the daily load limits are at their most stringent. *See* Approval Decision (Ex. 2) at iii-iv (noting that the TMDL for the Tidal Lower Anacostia is 4302.65 tons per day, but only 1632.27 tons per day during the aquatic vegetation growing season). In the context of such subjective aesthetic criteria, it was reasonable for the District and Maryland to conclude that a TMDL that would “significantly improve” the sediment load in the Anacostia, reducing it by 85%, would make it “certainly more desirable” for recreational uses, and would also meet the District’s narrative water quality criteria. *See* Response to Comments (Ex. 3) at 16.

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<sup>7</sup> Plaintiffs’ argument is based in part upon the possibility that the TMDL will allow sediment to be high on some days, even if it is greatly reduced on other days. Although these issues overlap, they are discussed separately in this Motion. Plaintiffs’ argument about potential “periodic violations” is discussed *infra* pp. 21-25.



Critically, this is an issue on which Judge Urbina upheld EPA's reasoning. In *Friends of the Earth I*, he wrote that "the turbidity standard is a narrative one and, thus, subjective." 346 F. Supp. 2d at 201. This means that, "absent a translation by the District or EPA of the open-ended criteria into a numerical end-point," plaintiff's evidence could not "clearly contradict EPA's assertion that current reductions are reasonably calculated to achieve compliance in the future." *Id.* In such a case, "no frame of reference exists against which to compare evidence." *Id.* (citing *American Iron & Steel Inst. v. EPA*, 115 F.3d 979, 990-91 (D.C. Cir. 1997)). This comports with the D.C. Circuit's treatment of narrative criteria in *American Paper Inst. v. EPA*, 996 F.2d 346, 351 (D.C. Cir. 1993), in which the court upheld an EPA regulation that allowed NPDES permit writers to translate narrative criteria into numerical effluent limits on a "case-by-case basis." The court stated that "[t]he general language of narrative criteria can only take the permit writer so far . . . [T]he writer will have to engage in some kind of interpretation." *Id.* Here, the District interpreted its narrative criteria to be satisfied by an 85% reduction in sediment load, with a consequent significant improvement in water clarity, and the case law supports the District's authority to do so.

Plaintiffs do not suggest that when the Anacostia meets the Secchi depth criterion of 0.8 meters, it will be unsuitable for recreational uses. The only evidence they cite pertaining to conditions in the Anacostia if that criterion is met as a seasonal average is a quotation from their video comments describing "trash, [excrement], bodies" as the type of "pollution" that impairs recreational use of the Anacostia. *See* Pl. Mot. at 11. This description says nothing about sediment, and says nothing about whether the narrative criteria will be met after the TMDL is implemented. All of the other evidence cited in their motion pertains to short-term conditions after storm events, a situation that will be discussed in the next section.

Plaintiffs also assert that it was arbitrary and capricious for EPA not to establish a measurable, enforceable sediment limit to effectuate the aesthetic standards, and set the TMDL to achieve that limit. *See* Pl. Mot. at 15. But the very documents they cite to support the *possibility* of developing numeric criteria also show that States are not *required* to do so. *See* U.S. Environmental Protection Agency, “Protocol for Developing Sediment TMDLs” (October 1999) at 4-2 (“Sediment TMDL Protocol,” excerpts attached hereto as Ex. 5); U.S. Environmental Protection Agency, “Developing Water Quality Criteria for Suspended and Bedded Sediments (SABS); Potential Approaches” (Draft, August 2003), at 18 (available at <http://www.epa.gov/waterscience/criteria/sediment/>).<sup>8</sup> (Rather, where narrative criteria are translated into numeric effluent limits, that step generally occurs at the NPDES permit-writing stage. *See* 40 C.F.R. § 122.44(d)(1)(vi); *American Paper Inst.*, 996 F.2d at 351-52.)

Furthermore, Plaintiffs do not challenge here, and the Court must accept, the District’s decision to express some of its water quality standards as numeric criteria and others only as narrative criteria. Where the District did not choose to translate its narrative criteria into numerical targets for purposes of developing the TMDL, and concluded that an 85 percent reduction in sediment load would satisfy its narrative criteria, the Court should not step in and change those decisions. *See also Friends of the Earth I*, 346 F. Supp. 2d at 202 (“The court should not force EPA to conduct a separate survey to gather evidence of recreational and aesthetic use when no evidence

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<sup>8</sup> EPA’s Sediment TMDL Protocol provides for the development of TMDLs based on narrative water quality criteria. It states that a numeric target should be selected that is expected to be sufficiently protective of the narrative criteria. *See* Sediment TMDL Protocol (Ex. 5) at 4-2. Here, the District and Maryland selected the Secchi depth criterion of 0.8 meters as a numeric target that would also protect the aesthetic and recreational qualities of the river.

exists of a discrete concentration level past which recreation and aesthetic use would be violated.”).<sup>9</sup>

EPA left open the possibility that the 2007 TMDL could be revised in the event that, after implementation, the 85% reduction in sediment attributable to the TMDL is deemed insufficient to meet aesthetic standards. *See* Approval Decision (Ex. 2) at 3; Response to Comments (Ex. 3) at 16. Plaintiffs argue that this willingness to revisit the TMDL in the future to account for new information demonstrates that the current TMDL does not actually address all water quality standards, and urge the Court not to believe that EPA will ever actually revisit this question. *See* Pl. Mot. at 13-14. The premise of this argument is invalid, because the TMDL, as approved, *will* implement all applicable water quality criteria. *See* Approval Decision (Ex. 2) at 3. Thus, there is no present obligation for the District or EPA to revise the TMDL.<sup>10</sup>

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<sup>9</sup> In addition to their substantive argument, Plaintiffs make the procedural argument that the District and Maryland should have responded in more detail to their comments about the possibility of creating aesthetic criteria expressed numerically. *See* Pl. Mot. at 15. However, the cited comments contend only that a numeric translation for the District’s narrative criteria is possible, and that the TMDL should include one because it will not otherwise satisfy the narrative criteria. *See* Earthjustice Comments (Ex. 6) at 6. Because the District and Maryland concluded that meeting the Secchi depth criteria would also meet the narrative criteria, it was not necessary to translate the narrative criteria into “measurable, enforceable load limits.” *Id.*

<sup>10</sup> The statements in the record about possible future revisions to the TMDL reflect EPA’s approval of an iterative or “adaptive” approach, “even for TMDLs where there is little uncertainty regarding the loading capacity of the water body and the necessary load reductions.” U.S. Environmental Protection Agency Memorandum, “Clarification Regarding ‘Phased’ Total Maximum Daily Loads” (Aug. 2, 2006), at 4 (attached hereto as Exhibit 7). According to that approach, TMDLs must be calculated to meet water quality standards given EPA’s current understanding of the data, but the possibility of revising the TMDL may be part of an implementation strategy. *Id.* The acknowledgement that revisions to the TMDL are possible, if future data shows that such revisions are necessary, does not invalidate a TMDL that is expected to meet water quality criteria based on the data at hand.

*b. The Secchi depth criterion is more stringent than the NTU criterion.*

The other numeric water quality standard that could affect permissible levels of sediment in the Anacostia is the turbidity criterion of 20 NTU's above ambient turbidity. *See* Pl. Mot. at 11-12. The District and Maryland concluded that the Secchi depth criterion would ensure that "on a long-term basis," the NTU turbidity criterion would also be met. The chart on p. 4 of the Approval Decision (Ex. 2) demonstrates that this conclusion was reasonable: For every data point showing a Secchi depth of 0.8 meters or more, the turbidity was less than 20 NTUs.<sup>11</sup> From this, it was reasonable for EPA to conclude that the Secchi depth criterion, not the NTU criterion, was the more stringent of the two. Moreover, interpreting its own water quality standards, the District has stated that the NTU criterion has limited applicability. It is not intended to be applied generally to attain water clarity throughout the river, but "is set to protect water quality from short-term localized impairment such as construction and/or dredging activities." Response to Comments (Ex. 3) at 17.<sup>12</sup> This explanation is consistent with the expression of the NTU criterion as "above ambient" *i.e.*, above the turbidity that would prevail in the absence of those activities. The use of Secchi depth as a proxy for the NTU standard thus has other benefits: It provides a fixed numerical target for the TMDL, rather than an NTU-based

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<sup>11</sup> The cited chart indicates absolute NTUs. Because the applicable water quality criterion is actually 20 NTUs above the ambient level of turbidity, even an NTU measurement of greater than 20 could satisfy that criterion, depending on the background turbidity level.

<sup>12</sup> The District's interpretation suggests that it may not have been necessary for the Anacostia-wide TMDL to address the NTU water quality criterion. However, assuming that the District was required to address the NTU criterion into the TMDL, the argument in the text explains why it was reasonable for the District to do so through implementation of the Secchi depth criterion.

target that varies depending on ambient turbidity, and it can apply even when construction and dredging activities are not occurring.<sup>13</sup>

## 2. The Water Quality Criteria Do Not Have To Be Met Every Day.

The foregoing analysis demonstrates that EPA reasonably accepted Maryland's and the District's conclusion that meeting the Secchi depth criterion would also *generally* meet all other applicable water quality standards. Plaintiffs go on to claim, however, that EPA's use of the seasonal average Secchi depth criterion will allow "periodic violations" of the other water quality standards "on much shorter timescales." Pl. Mot. at 16; *see id.* at 10-12 (describing Plaintiffs' comments about the effects of the TMDL "under high flow conditions"). In other words, they claim that EPA must reject any TMDL that will allow the river to become muddy during or after large rain events. This argument is incorrect.

Plaintiffs assume – without providing any support – that the NTU and narrative criteria must be met every day. That purported requirement is not found in the District's water quality criteria for NTU and aesthetic and recreational uses, which do not specify the time frame over which they are measured. For example, the District's Secchi depth criterion is described as a "seasonal segment average," the E. coli numeric criteria are measured as a "30 day geometric mean for 5 samples" as well as for "single sample value," and the dissolved oxygen criteria provide for a 30-day mean, a 7-day mean, and an "instantaneous minimum" that must be met on any day that a sample is taken. 21 C.D.C.R. § 1104.8, Table 1. The NTU criterion and the narrative criteria, by contrast, do not specify that they must be met on any given day or over a

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<sup>13</sup> Plaintiffs do not contend that the 0.8 meter Secchi depth criterion is less stringent than the NTU criterion; all their arguments concerning the NTU criterion relate to possible short-term impairment during storm events. This argument is addressed in the next section.

given period. *See id.* If the NTU and narrative criteria had to be met on a “daily (or even instantaneous) basis,” as Plaintiffs have argued, *see* Earthjustice Comments at 5, then the District would have expressly included that requirement in its regulations, as it did for dissolved oxygen. *Cf., e.g., New York v. EPA*, 413 F.3d 3, 39 (D.C. Cir. 2005) (stating the general interpretive principle that when language is included in one part of a statute and not in another part, it is presumed that both the inclusion and the exclusion were intentional).

In the absence of an explicit time frame for measuring attainment, these water quality criteria must be interpreted reasonably. But as other numeric criteria in the District’s regulations show, “every day” is not the only reasonable possibility. Here, the District interpreted its own regulations to allow for compliance with the NTU criterion “generally” and on a “long-term basis,” through compliance with the Secchi depth criterion. *See* Response to Comments at 17. Just as an agency’s interpretation of its own regulation is entitled to deference so long as it is not “plainly erroneous or inconsistent” with the text, *see Bowles v. Seminole Rock & Sand*, 325 U.S. 410, 414 (1945), the District’s interpretation is entitled to deference here because it is not inconsistent with the text of the regulation. That interpretation is also reasonable in light of the sediment load patterns described in the record. As the District and Maryland stated, “[t]he largest source of sediment in the Anacostia is believed to be stream channel erosion due to alternations in hydrology that have occurred in the urbanized portions of the watershed . . . This altered urban hydrology causes atypically high flows in streams during storms, and atypically low flows during dry periods.” TMDL Report (Ex. 1) at 10. The District’s interpretation that compliance on a “long-term basis” is sufficient to meet the NTU criterion is a reasonable way to account for the real-world effect of storm events; it does not render the TMDL invalid.

Moreover, this interpretation of the District's criteria is permissible in light of the relevant provisions of the Clean Water Act. The Act does not require that water quality standards be met over any particular period of time (such as every day), and takes into account the natural variability of water quality. See 33 U.S.C. § 1313(d)(1)(C) (requiring TMDLs to account for seasonal variations).<sup>14</sup> The D.C. Circuit held that TMDLs must contain daily load limits because the term "daily" is plainly part of the phrase "total maximum daily load." *Friends of the Earth I*, 446 F.3d at 144. But the same logic does not apply to water quality standards, which are not associated with any temporal language in the statute.<sup>15</sup> EPA's judgment that a

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<sup>14</sup> As Plaintiffs note, EPA regulations require TMDLs to take into account "critical conditions" for factors such as stream flow and loading. 40 C.F.R. § 130.7(c)(1). This does not mean, however, that a criterion that is measured over longer time periods, such as those for TSS, can be violated by an instantaneous measurement that exceeds the criterion. Rather, the "critical conditions" regulation is intended to address conditions such as low stream flow that may increase the concentration of a toxic pollutant in excess of water quality criteria, taking into account any applicable measurement period. For example, the D.C. water quality criterion for arsenic must be attained on a 1-hour average basis. See 21 C.D.C.R. § 1104, Table 2. The "critical conditions" regulation requires the development of a TMDL that will enable that 1-hour average to be attained even on days when, due to water conditions, concentrations of arsenic are likely to be high.

<sup>15</sup> Additional support for the point that water quality standards do not necessarily need to be met on each day that a sample may be taken may be found in EPA's 2006 guidance concerning the "listing" of impaired waters under 33 U.S.C. § 1313. See "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act," 70 Fed. Reg. 47,200 (Aug. 12, 2005) (*document available at* <http://www.epa.gov/owow/tmdl/2006IRG/> ("2006 Listing Guidance")). That guidance endorses a "10% rule," under which a state does not need to identify a water body as impaired if fewer than 10% of measurements exceed an applicable water quality criterion. See 2006 Listing Guidance at 39-40. The 10% rule as described in the guidance does not apply if it would be inconsistent with a time period specified in the water quality criteria. *Id.* at 40. Although the 10% rule was not used to support the TMDL decision in this case, EPA mentions it here to support the proposition that, depending on the language of the water quality criteria themselves, isolated instances in which pollutant levels exceed those criteria do not necessarily have consequences under 33 U.S.C. § 1313.

high daily load on some days, relative to the average seasonal load, may still meet the applicable water quality standards as interpreted by the District is consistent with the Act.

In contrast to the District's interpretation, Plaintiffs' "every day" interpretation of the narrative and NTU water quality criteria is not reasonable. That interpretation would require water clear enough for Plaintiffs' members to enjoy a swim during a winter rainstorm. Nor do Plaintiffs' citations to the record about the effects of high intermittent sediment loads carry the force that they suggest. For example, Plaintiffs offer the two-page analysis of Dr. Sulkin, accompanied by photos that do not even depict the Anacostia, to support the argument that short-term failures to meet the NTU criterion will harm fish and wildlife. *See* Pl. Mot. at 11. The District and Maryland responded that their much more detailed computer model of sediment in the Anacostia, coupled with water quality criteria specifically designed to protect aquatic life, disagreed with Dr. Sulkin's analysis.<sup>16</sup> *See* Response to Comments (Ex. 3) at 18. With respect to the day-to-day aesthetic qualities of the Anacostia, Plaintiffs contend that short-term impairments will harm their members' enjoyment of the Anacostia.<sup>17</sup> They do not, however, offer any assessment of how often such impairments will occur, how widely shared their members' aesthetic sensibilities may be, or how EPA might measure the impact of short-term turbidity against either the "enjoyment" of Plaintiffs' members or the general criterion that "the aesthetic qualities" of the Anacostia "shall be maintained." 21 C.D.C.R. § 1104.4.

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<sup>16</sup> As noted above, Plaintiffs do not dispute the agencies' analysis that the TMDL will meet the Secchi depth criterion for protection of aquatic life. To the extent they contend that the TMDL is not sufficiently protective of aquatic life, therefore, their argument is with the District's water quality criterion, and not with the TMDL itself.

<sup>17</sup> The Court must disregard Plaintiffs' citations to its standing affidavits on the issue of short-term impairments, since those affidavits were not before the agency at the time of its Approval Decision. *See Overton Park v. Volpe*, 401 U.S. at 419.



For the foregoing reasons, it was reasonable for EPA to have approved the District's conclusion that the District's water quality criteria will be satisfied by the TMDL, even if that TMDL would allow short-term decreases in water clarity during thunderstorms and other similar events. Judge Urbina's comment in *Friends of the Earth I* is particularly apt:

[T]he court is not prepared to say that recreational and aesthetic use reasonably contemplates the utilization of waters immediately after infrequent, disruptive storm events . . . EPA's decision-making process [need not] yield to the whim of that unlikely aquatic enthusiast who will not tolerate anything less than immediate enjoyment of river water after disruptive storm events.

346 F. Supp. 2d at 202.

**B. EPA Reasonably Chose To Aggregate Some Individual Pipes and Outfalls In the TMDL's Wasteload Allocations.**

In developing the TMDL, the District and Maryland assigned a wasteload allocation to each source on the Anacostia that has an NPDES permit under Section 402 of the Clean Water Act, 33 U.S.C. § 1342. *See* Approval Decision (Ex. 2) at 29-30, Tables 11 and 13; *see also* Technical Memorandum (Ex. 4) at 1. They further assigned wasteload allocations to many smaller groups of outfalls from combined sewer overflows and municipal separate storm sewer systems that flow into the Anacostia, even though each of those larger systems is covered by a single permit. *See* Approval Decision (Ex. 2) at 28-30, Tables 10, 12, 14; Technical Memorandum (Ex. 4) at 3-4. Plaintiffs contend that EPA erred in approving the TMDL because, as they interpret EPA's regulations, those regulations require the TMDL to identify a separate wasteload allocation for each of the hundreds of individual outfalls that are presently covered by a single NPDES permit. *See* Pl. Mot. at 17-19 (citing the definitions of "total maximum daily load" and "wasteload allocation" in 40 C.F.R. § 130.2(h) and (i)). Plaintiffs further claim that the

failure to assign a wasteload allocation to each individual pipe will hinder enforcement efforts under the TMDL. *Id.* Both arguments are incorrect.

The Clean Water Act does not provide any explicit answer to the question whether waste load allocations must be assigned to every individual outfall. Indeed, the concept of the wasteload allocation is a creature of EPA regulation. *Compare* 33 U.S.C. § 1313(d) (creating the statutory requirement for TMDLs without mentioning wasteload allocations) *with* 40 C.F.R. § 130.2(g)-(i) (creating and defining the concept of wasteload allocations). Because the statute is silent on this question, it is an issue for EPA's interpretation through regulation. *See Chevron, U.S.A. Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 842-43 (1984). Furthermore, it is EPA's prerogative to interpret its own regulation broadly as long as that interpretation reflects the agency's fair and considered judgment and is consistent with the language of the regulation, in which case EPA's interpretation is entitled to substantial deference. *See Auer v. Robbins*, 519 U.S. 452, 461 (1997) (quoting *Seminole Rock & Sand*, 325 U.S. at 414). Indeed, EPA's interpretation must be given "controlling weight unless it is plainly erroneous or inconsistent with the regulation." *Seminole Rock & Sand*, 325 U.S. at 414.

Under the relevant Clean Water Act language and agency interpretations, there is no plain error present here. After EPA promulgated the regulatory definitions in question, Congress amended the Act to provide for the permitting of "municipal storm sewers," which may be issued a permit "on a system- or jurisdiction-wide basis." 33 U.S.C. § 1342(p)(3)(B)(i). *See also id.* § 1342(q) (incorporating by reference a 1994 EPA policy that takes a systemwide approach to

permitting and establishing limits for combined sewer overflows).<sup>18</sup> In light of these changes, EPA subsequently interpreted the definition of “total maximum daily load” and “wasteload allocation” in 40 C.F.R. § 130.2 to allow the identification of wasteload allocation for a municipal separate storm sewer system in the aggregate, rather than requiring a TMDL to provide a separate wasteload allocation for each individual outfall within that system.

Specifically, EPA stated:

It may be reasonable to express allocations for NPDES-regulated storm water discharges from multiple point sources as a single categorical wasteload allocation when data and information are insufficient to assign each source or outfall individual WLAs. *See* 40 C.F.R. § 130.2(i). In cases where wasteload allocations are developed for categories of discharges, these categories should be defined as narrowly as available information allows.

U.S. Environmental Protection Agency Memorandum, “Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs” (Nov. 22, 2002) at 1-2 (attached hereto as Ex. 8); *see also id.* at 3-4. This interpretation is consistent with the purpose of the regulatory definition of “wasteload allocation,” which was to ensure that the total pollutant reduction sought in a TMDL can be achieved by the reduction of pollutant discharges from individual sources. *See* “Water Quality Planning and Management,” 50 Fed. Reg. 1774, 1774-75 (Jan. 11, 1985) (promulgating the cited regulatory definitions, and noting that a review of wasteload allocations is necessary to ensure that a TMDL will be able to achieve water quality standards).

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<sup>18</sup> The definitions of “total maximum daily load” and “wasteload allocation” were promulgated in 1985. *See* “Water Quality Planning and Management,” 50 Fed. Reg. 1774, 1774 (Jan. 11, 1985). The Clean Water Act was amended in 1987 to provide that municipal separate storm sewer system permits may be issued on a system-wide basis. *See* Pub. L. 100-4, § 405, 101 Stat. 7, 69 (1987).

Plaintiffs claim that in making this argument, EPA is attempting to use guidance documents to authorize an interpretation that is inconsistent with its regulations. Pl. Mot. at 19. However, the case they cite, *Central Laborers' Pension Fund v. Heinz*, 541 U.S. 739, 748 (2004), is not applicable here. In that case, the agency sought to defend an informal practice that directly conflicted with a formal regulation. Here, in contrast, EPA's guidance documents explicitly interpret the relevant TMDL regulations in light of those regulations' purposes and the effect of subsequent statutory amendments addressing storm water systems. In that interpretation, EPA does not seek to ignore, supersede or nullify the regulation itself, but only define the scope of its application to a specific context.

EPA applied this interpretation in the 2002 Anacostia TMDL, and Judge Urbina upheld EPA's action in *Friends of the Earth I*. Specifically, he held that "the CWA allows system-wide rather than point source treatment of discharges in TMDLs and permits." 346 F. Supp. 2d at 203 (citing 33 U.S.C. § 1342(p)(3)(B)(i); 40 C.F.R. 122.26(d)(2)(iv)). This method of assigning wasteload allocations appropriately reserves the ability to set individual allocations to the states during the permit process, while still providing an allocation in the TMDL for each individual permit holder. *Id.* It is also "in substantial conformity to the purpose of [EPA's] regulations." *Id.*; see also *Dioxin/Organochlorine Center v. Rasmussen*, No. C93-33D, 1993 WL 484888, at \*5 (W.D. Wash. Aug. 10, 1993) (reasoning that the purpose of 40 C.F.R. § 130.2 is to ensure that the agency considers all loadings in setting a TMDL), *aff'd*, 57 F.3d 1517 (9th Cir. 1995).

The degree of specificity provided in the wasteload allocations in the Anacostia TSS TMDL is consistent with the interpretation of its regulations that EPA stated in the 2002 Guidance. In approving the TMDL's wasteload allocations, EPA stated that the requirements of its regulations were met because "[a]lllocations were assigned to each source or type of source

depending on the availability of data and techniques of prediction.” Approval Decision (Ex. 2) at 24. Plaintiffs contend that EPA had the necessary data to assign wasteload allocations to individual outfalls, *see* Pl. Mot. at 18, but do not support this point with adequate evidence in the record. In their comments to the District and Maryland, they stated only that the Technical Memorandum contains wasteload allocations for “individual point sources *by county and subwatershed*.” Earthjustice Comments (Ex. 6) at 8. This comment does not demonstrate that there was data in the record sufficient to make a *further* sub-allocation to each individual outfall within those counties and subwatersheds. Although Plaintiffs presumed that such data existed, they pointed to no such record data in their comments, *see id.*, nor do they do so here.

Finally, there is also no merit to Plaintiffs’ argument that EPA erred in approving the TMDL because an identifiable wasteload allocation for each pipe is necessary to ensure that no individual pipe is discharging too much sediment. *See* Pl. Mot. at 19. Under the Act, neither TMDLs nor water quality standards are self-implementing; both are effectuated through NPDES permits, and the Act requires compliance with those permits. *See* 33 U.S.C. §§ 1311(a), 1342.<sup>19</sup> The TMDL is a planning document that assists the permit-issuing jurisdiction in evaluating and issuing permits for all point sources that discharge pollutants into the water body. *See supra* pp. 4-5; 40 C.F.R. § 122.44(d)(1)(vii)(B) (requiring permits to be “consistent with the assumptions and requirements” of the wasteload allocations set by TMDL). Thus, the NPDES permit system – which allows system-wide permits for storm sewer systems – provides the “accountability

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<sup>19</sup> As noted above, the Act allows those NPDES permits to be issued on a system-wide basis to municipal separate storm sewer systems and combined sewer overflows. If the Court were to hold that each individual outfall must have a wasteload allocation that would allow Plaintiffs to measure that outfall’s “compliance” with a TMDL’s wasteload allocations, it would effectively nullify those statutory provisions.

under the approved TMDL” that Plaintiffs demand. *See* Pl. Mot. at 19. *See also Friends of the Earth I*, 346 F. Supp. 2d at 203 (describing the importance of the permitting process in the assignment of individual wasteload allocations). Moreover, Plaintiffs are not necessarily correct that outfall-specific wasteload allocations would be effective tools for monitoring compliance.

Plaintiffs made this argument in comments to the District and Maryland, which responded:

The proposition that assigning allocations to many hundreds, possibly thousands, of MS4 outfalls would be an effective means of achieving the goals of a TMDL is extremely questionable. The monitoring for compliance scenario implicit in such a notion would likely be well beyond the financial means of even the wealthiest jurisdictions.

Response to Comments (Ex. 3) at 19-20. Because they have no sound legal or factual basis, Plaintiffs’ arguments concerning the need for individual, rather than aggregate, wasteload allocation for municipal separate storm sewer systems and combined sewer overflows in the Anacostia TMDL must be rejected.

### **C. EPA’s Implicit Margin of Safety Satisfies the Requirements of the Act.**

The Clean Water Act requires a TMDL to include “a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.” 33 U.S.C. §1313(d)(1)(C); Pl. Mot. at 20-21. The implicit margin of safety that the District and Maryland incorporated into the TMDL satisfies this statutory requirement.

In the Anacostia TSS TMDL, the District and Maryland incorporated an implicit margin of safety by introducing conservative assumptions into their computer model to compensate for conditions in the river that are not accounted for in that model. The computer model used here incorporated a large volume of high quality data about sediment in the Anacostia. *See* TMDL Report (Ex. 1) at 13-25 (describing data from seven years of Maryland and District water quality monitoring programs, at least six special studies, U.S. Geological Survey monitoring stations,

and other sources). From that data, the model predicted the complex interactions between water and flow velocity and depth, tidal currents, sediment exchange, sediment loads entering each water quality segment (including daily estimates for 36 segments in the tidal Anacostia River alone), the possibility of algae growth, erosion, and land use. *See id.* at 28-33.

Inevitably, some uncertainty remained with respect to certain components of the model. The District and Maryland therefore created a conservative bias in the model by incorporating conservative assumptions about these areas of uncertainty; *i.e.*, assumptions that would tend to result in the model generating a TMDL with a more stringent allowable sediment load. For example, the model (1) underestimated water clarity during the baseline period, suggesting that water clarity under the implemented TMDL would also be greater than estimated; and (2) used weekly and daily maximum concentrations in simulating discharge from some point sources, rather than monthly concentrations. *See* Approval Decision (Ex. 2) at 32-33; *see infra* p. 33-34. The model also omitted consideration of the following factors which, if they had been included, would have tended to increase allowable sediment loads: (1) “sediment aging,” which reduces the resuspension of sediment on the riverbed; (2) the trapping of sediment by increased submerged aquatic vegetation beds, as those beds grow in response to improving water clarity; and (3) the “first flush” effect that influences the distribution of sediment discharges from CSOs during storms. *See* Approval Decision (Ex. 2) at 32-33. *See also* TMDL Report (Ex. 1) at 38; Response to Comments (Ex. 3) at 18. Each of these five factors caused the model to overpredict the amount of sediment actually entering or remaining in the Anacostia. As a result, once the reductions in sediment load called for in the TMDL are implemented, the water of the Anacostia is likely to be even clearer than the 0.8 meter seasonal average Secchi depth that the model predicts. This constitutes the statutorily required margin of safety.

Plaintiffs contend that this approach was erroneous for two reasons. First, they claim that an implicit margin of safety may never be legally adequate, and that instead it must always be “objectively identifiable and measurable.” Pl. Mot. at 20. The statute on its face does not require this, nor does any relevant regulation. To the contrary, EPA guidance and practice allows the use of an implicit margin of safety incorporated through conservative assumptions. *See, e.g.,* Sediment TMDL Protocol (Ex. 5) at 3-7 (describing methods of introducing an implicit margin of safety into a sediment TMDL, including the use of conservative assumptions). This approach has been explicitly upheld by the Second Circuit as a reasonable exercise of EPA’s expertise and discretion. *See Muszynski*, 268 F.3d at 102-03; *see also American Iron & Steel Ins. v. EPA*, 115 F.3d 979, 993 (D.C. Cir. 1997) (“[I]t is within EPA’s discretion to decide that in the wake of uncertainty, it would be better to give [pollution standards] a conservative bent rather than err on the other side.”) It is also reasonable for EPA to use fewer conservative assumptions where more detailed data is available. *Id., see also* Sediment TMDL Protocol (Ex. 5) at 3-7.

These principles derive from the general discretion that the agency has to weigh complex scientific data and translate that data into numerical pollution standards. For example, in *Lead Industries Ass’n, Inc. v. EPA*, 647 F.2d 1130 (D.C. Cir. 1980), the D.C. Circuit considered claims that EPA was required specifically to identify a numerical threshold and margins of safety in setting air quality standards for lead. The court held that the Administrator has discretion to decide the best manner of determining a margin of safety, and that it “must allow him the discretion to determine which approach will best fulfill the goals of the Act.” *Id.* at 1162. EPA must only provide a rational explanation of its choice. *Id. See also Friends of the Earth I*, 346 F. Supp. 2d at 199 (noting that “courts defer to an agency’s choice of approach for deriving a margin of safety as a matter of administrative policy and scientific uncertainty”).



Second, Plaintiffs claim the record shows that the margin of safety that EPA approved here was insufficient. This is not correct. Because the model took into account so many relevant factors, EPA “has confidence in the calibrated/validated modeling foundation serving as the basis for the TMDL calculations.” Approval Decision (Ex. 2) at 32. The need for a margin of safety arises primarily from areas of uncertainty, *see* 33 U.S.C. § 1313(d)(1)(C), and so the District and Maryland identified issues that their computer model did not take into account. A margin of safety is implicit because, due to the cumulative effect of each of those issues, water clarity in the Anacostia is likely to be better than the computer model itself would predict. *See* Approval Decision (Ex. 2) at 32-33; *see also Muszynski*, 268 F.3d at 102 (holding that a high degree of calibration in EPA’s TMDL computer models justifies the use of a relatively narrow margin of safety); *City of Waukesha v. EPA*, 320 F.3d 228, 247 (D.C. Cir. 2003) (where the agency is evaluating “scientific data within its technical expertise,” it is entitled to “an extreme degree of deference”).

With respect to the specific issue that Plaintiffs mention in their Motion, *see* Pl. Mot. at 21, EPA considered the correlation between Secchi depth and TSS to be sufficiently established for purposes of the computer model. *See* Approval Decision (Ex. 2) at 4. It was not unreasonable for EPA to conclude that the margin of safety was best established by using conservative assumptions on other points, where more uncertainty existed in the computer model. Because this is a highly technical judgment that involves the weighing of competing methods of introducing a margin of safety into TMDL calculations, the Court should defer to EPA’s judgment.

Finally, Plaintiffs argue that EPA’s explanation of its use of daily and weekly permitted TSS discharges “is an empty statement.” Pl. Mot. at 21. Plaintiffs believe that EPA was

required to spell out in more detail why the use of daily and weekly permitted TSS discharges in the TMDL model creates a more conservative TMDL. *See* TMDL Report (Ex. 1) at 38 (point 4). However, the agency need only include enough detail that its reasoning may be “reasonably discerned,” *see Bowman Transp.*, 419 U.S. at 286, and it did so here. The monthly average permitted discharge for a point source is less than the sum of its maximum permitted daily or weekly discharges. For example, discharges from municipal separate storm sewer systems occur primarily during rain events, which do not happen every day. As a result, the use of daily or weekly maximum permit limits in the model creates an assumption that sediment discharge is higher than it is actually likely to be. If the model predicts a greater amount of sediment in the river than actually exists, it will recommend a more stringent TMDL to control that sediment than may actually be necessary. This incremental level of protection creates a margin of safety.<sup>20</sup>

### CONCLUSION

For the foregoing reasons, the Court should conclude that EPA’s decision to approve the Anacostia TSS TMDL submitted by Maryland and the District of Columbia was not arbitrary or capricious, and was in accordance with law. On that basis, the Court should deny Plaintiffs’ motion for summary judgment, and grant EPA’s cross-motion for summary judgment.

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<sup>20</sup> The statement in the Approval Decision that “[t]he MOS in these TMDLs is implicit and identified as a separate allocation,” *see* Approval Decision (Ex. 2) at 32, appears to be a typographical error. That statement should read: “The MOS in these TMDLs is implicit and *not* identified as a separate allocation.” This would be consistent with all the other information and analysis in the Approval Decision, and would reflect the District’s and Maryland’s similar statement that “[t]he margin of safety (MOS) is implicit and not specific as a separate term.” TMDL Report (Ex. 1) at 37.

Respectfully submitted,

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Dated: September 18, 2009

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

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ANACOSTIA RIVERKEEPER, INC.  
and FRIENDS OF THE EARTH,

Plaintiffs,

v.

LISA JACKSON, Administrator,  
United States Environmental Protection Agency,

Defendant.

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Case No. 1:09-cv-00097-RWR

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

**EXHIBIT LIST**

- |           |   |
|-----------|---|
| Exhibit 1 | Maryland Department of the Environment and District of Columbia Department of the Environment, "Total Maximum Daily Loads of Sediment/Total Suspended Solids for the Anacostia River Basin" (June 22, 2007) ("TMDL Report")   |
| Exhibit 2 | U.S. Environmental Protection Agency, "Decision Rationale, Total Maximum Daily Loads, Anacostia River Basin Watershed for Sediment/Total Suspended Solids" (July 24, 2007) ("Approval Decision")  |
| Exhibit 3 | Maryland Department of the Environment and District of Columbia Department of the Environment, "Comment Response Document Regarding the Total Maximum Daily Loads of Sediment/Total Suspended Solids in the Anacostia River Watershed" (June 21, 2007) ("Response to Comments") |
| Exhibit 4 | "Technical Memorandum: Significant Sediment Point Sources in the Anacostia River Watershed" (June 13, 2007) ("Technical Memorandum")  |
| Exhibit 5 | U.S. Environmental Protection Agency, "Protocol for Developing Sediment TMDLs" (October 1999) ("Sediment TMDL Protocol") (excerpts)   |

- Exhibit 6            Earthjustice Comments to Maryland and the District of Columbia concerning the 2007 Anacostia TSS TMDL (excerpts)
- Exhibit 7            U.S Environmental Protection Agency Memorandum, “Clarification Regarding ‘Phased’ Total Maximum Daily Loads” (Aug. 2, 2006)
- Exhibit 8            U.S. Environmental Protection Agency Memorandum, “Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs” (Nov. 22, 2002)

**CERTIFICATE OF SERVICE**

I certify that the following counsel are registered to receive filings in this case from the Court's electronic filing system, and will receive a copy of this Memorandum (with the associated Exhibits) upon its filing.

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