

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

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,
DISTRICT OF COLUMBIA WATER AND
SEWER AUTHORITY,
Intervenor.

PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

Pursuant to Rule 56 of the Federal Rules of Civil Procedure and Local Civil Rules 7(h) and 56.1, the plaintiffs Anacostia Riverkeeper and Friends of the Earth respectfully move this Court for an order entering summary judgment against defendants, declaring unlawful defendants' 2007 approval of total maximum daily loads for sediment and suspended solids for the Anacostia River in the District of Columbia and Maryland. In accordance with Loc. Civ. R. 7(h) and 56.1, the plaintiffs are attaching a Memorandum of Points and Authorities in support of this Motion for Summary Judgment.

Pursuant to Loc. Civ. R. 7(f), Plaintiffs request an opportunity to present oral argument.

Respectfully submitted this 17th day of July, 2009.

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**PLAINTIFFS' MEMORANDUM OF POINTS AND AUTHORITIES
IN SUPPORT OF THEIR MOTION FOR SUMMARY JUDGMENT**

I. Introductory Statement

This case concerns the decision of defendant U.S. Environmental Protection Agency (“EPA”) to approve total maximum daily loads (“TMDLs”) for sediment and total suspended solids (“TSS”) for the Anacostia River in Maryland and the District of Columbia. EPA Region III, Decision Rationale, Total Maximum Daily Loads, Anacostia River Basin Watershed For Sediment/Total Suspended Solids, Montgomery and Prince George’s Counties, Maryland and the District of Columbia (July 24, 2007) (“Decision”), Administrative Record (“AR”) #3. As described below, EPA failed to provide a reasoned, lawful basis for concluding that the approved TMDLs implement the applicable water quality standards, violated regulatory requirements for adopting “wasteload allocations” as part of the TMDLs, and violated the statutory requirement to include a “margin of safety.”

Due to many decades of environmental degradation and neglect, the Anacostia River has been “bestowed with the dubious distinction of being one of the ten most polluted rivers in the

country.” *Kingman Park Civic Assn. v. EPA*, 84 F.Supp.2d 1, 4 (D.D.C. 1999). The Anacostia River and its tributaries begin in Montgomery and Prince George’s Counties in Maryland, and flow for several miles through the District of Columbia to the river’s confluence with the Potomac River near Hains Point. *See* Decision, AR # 3 at vii-viii. Though it is surrounded by residential neighborhoods, and lined with parks, marinas, and other recreational facilities, the River suffers from severe water pollution that impairs its safety and value for recreational activities and aesthetic enjoyment. Adoption of adequate sediment/TSS TMDLs is particularly critical to the health of the Anacostia, because these pollutants account in large part for the severe degradation of the River, and because their adverse impacts on water quality and beneficial uses are dire:

Suspended sediment in streams may reduce visibility and prevent fish from seeing their prey, and may clog gills and filter feeding mechanisms of fish and benthic (bottom-dwelling) organisms. Excessive deposition of sediment on streambeds may bury eggs or larvae of fish and benthic macroinvertebrates, or degrade habitat by clogging the interstitial spaces between sand and gravel particles. Suspended sediment also reduces the amount of light reaching aquatic plants and can cause a decline or disappearance of communities of submerged aquatic vegetation (SAV), an important component of tidal ecosystems.

Plaintiffs’ Comments, AR # 18 at 5 (quoting Draft TMDL).

A. The Clean Water Act and Implementing Regulations

The core objective of the Clean Water Act (“CWA”) is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To achieve that objective, Congress declared as a “national goal” that “the discharge of pollutants into the navigable waters be eliminated by 1985,” and that “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.” *Id.* §§ 1251(a)(1) and (2).

In furtherance of these goals, the Act required, among other things, that point sources – including any “pipe,” “conduit,” or other “discernible, confined and discrete conveyance” – meet technology-based effluent limitations. *Id.* §§ 1311(b)(1)(A) and (B). However, recognizing that this approach by itself would not produce clean water, the Act also required each state to have in place EPA-approved water quality standards sufficient to “protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter.” *Id.* § 1313(c)(2)(A).

The achievement of water quality standards is one of the Act’s “central objectives.” *Arkansas v. Oklahoma*, 503 U.S. 91, 106 (1992). To that end, the Act requires that “[e]ach State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters.” *Id.* § 1313(d)(1)(A). State water quality standards “shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” 33 U.S.C. § 1313(c)(2)(A). The CWA expressly requires State water quality standards to protect the use and value of water for recreational purposes. *Id.* (Water quality “standards shall be established taking into consideration their use and value for ... recreational purposes,” among other values).

For waters identified as not meeting standards, States must establish “the total maximum daily load” of pollutants that can enter the waterbody and establish such loads “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.* § 1313 (d)(1)(C) (emphasis added). The Act requires EPA to either approve or disapprove of state TMDLs, and in some circumstances to establish TMDLs. *Id.* §1313(d)(2).

TMDLs are implemented by, among other things, the issuance of point source discharge permits, which must assure compliance with the applicable TMDLs. 33 U.S.C. § 1311(b)(1)(C) (requiring achievement of “any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter”). *See also* 40 C.F.R. § 122.44(d)(1)(vii)(B); *Environmental Defense Fund v. Costle*, 657 F.2d 275, 294 (D.C. Cir. 1981) (summarizing the statutory scheme).

B. The 2006 Decision of the U.S. Court of Appeals for the D.C. Circuit Concerning the Prior TSS TMDLs

EPA, Maryland and D.C. developed the TSS TMDLs at issue in response to a 2006 ruling by the U.S. Court of Appeals for the D.C. Circuit. Decision, AR # 3 at vii. There, the Plaintiffs challenged EPA’s approval of a prior version of TSS TMDLs for the District’s portion of the Anacostia because, among other problems, the TMDLs contained only seasonal limits on TSS, *i.e.* a gross limit on sediments and other solid contaminants entering the Anacostia over the course of an entire season. The Court in *Friends of the Earth* held that, because the CWA unambiguously requires TMDLs to contain “daily loads,” the Act does not permit states to substitute load limits for longer time frames such as annual loads or seasonal loads. *See Friends of the Earth v. EPA*, 416 F.3d 140, 144-145 (D.C. Cir. 2006) AR # 9 at 5-6. Confirming the unqualified requirement of the CWA to establish TMDLs at the level needed to implement applicable water quality standards, the Court further stated that, “[a]s written, the [CWA] requires states to establish daily loads that also meet applicable water quality standards. The existence of two conditions does not authorize EPA to disregard one of them.” *Id.* at 145, AR # 9 at 6 (emphasis added).

C. D.C. and Maryland Water Quality standards

The District's 2004 report to Congress on water quality in the District's waters acknowledged that none of the waters covered by these TMDLs support the primary contact recreation use ("swimmable use"), and only a tiny fraction support the secondary contact recreation and aquatic life uses. *See* 2004 Integrated Report to the EPA and U.S. Congress Pursuant to Sec. 305(b) and 303(d) of the Clean Water Act, Exec. Summary at 1, Tables 1.1, 1.2, and 1.3., available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/information/pdf_2/water.integ.report.pdf, and attached as Ex. A.

The District of Columbia has adopted water quality standards, including designated uses and numeric and narrative criteria, for a number of values that are "applicable" to the TSS TMDLs within the meaning of the Act, 33 U.S.C. § 1313(d)(1)(C) (TMDL loads "shall be established at a level necessary to implement the applicable water quality standards"):

a. The Anacostia River is designated for several uses in the District, including Class A (Primary contact recreation – i.e., swimming), Class B (Secondary contact recreation and aesthetic enjoyment), and Class C (Protection and propagation of fish, shellfish and wildlife). 21 DCMR § 1101.2. Two tributaries of the Anacostia in the District (Hickey Run and Watts Branch) are designated for Class B, and C uses, among others. *Id.* Additionally, the Maryland portion of the Anacostia, along with all its tributaries except Paint Branch, is designated for Use I-P, which includes "water contact recreation." COMAR § 26.08.02.08(O) and § 26.08.02.03-3(B). Some of these uses are not only designated uses, but existing uses within the meaning of the CWA and implementing regulations. Excessive TSS impair these uses by clogging the gills of fish, smothering shellfish and tiny benthic aquatic organisms, and interfering with the ability and desirability of area residents and visitors (including the Plaintiffs' members) to engage in

recreation such as boating, paddling, swimming, and observation for aesthetic enjoyment. *See Plaintiffs' Comments*, AR # 18 at 5 (quoting Draft TMDL); *Declaration of Brian Van Wye*¹ (May 7, 2007), AR # 19 at ¶ 4; *Video Comments* (May 4, 2007), AR # 17. Because these uses are impaired by TSS, they are water quality standards that are applicable to the TSS TMDL within the meaning of 33 U.S.C. § 1313(d)(1)(C).

b. The District's water quality standards require that "[t]he surface waters of the District shall be free from substances attributable to point or nonpoint sources discharged in amounts that ... [p]roduce objectionable odor, color, taste or turbidity," or "[p]roduce undesirable aquatic life or result in the dominance of nuisance species." 21 DCMR § 1104.1(c) and (e) (emphasis added). Excessive sediments and suspended solids cause or contribute to violations of these standards because they create dirty, murky conditions in the Anacostia. *Declaration, Van Wye* (May 7, 2007), AR # 19 at ¶ 4. Therefore these narrative criteria are "applicable" to the TSS TMDLs within the meaning of 33 U.S.C. § 1313(d)(1)(A).

c. The District's standards also provide that "[t]he aesthetic qualities of Class B waters shall be maintained." 21 DCMR § 1104.4. Excessive sediments and suspended solids cause or contribute to violations of this standard as described above, therefore this narrative criteria is "applicable" to the TSS TMDLs within the meaning of 33 U.S.C. § 1313(d)(1)(A).

d. The District's standards applicable to the Anacostia and its tributaries include a numeric turbidity criterion of 20 Nephelometer Turbidity Units ("NTU") above ambient NTU. 21 DCMR § 1104.8, Table 1. NTU are a measure for the turbidity, or cloudiness, of water. "Ambient" is defined in D.C. law as "those conditions existing before or upstream of a source or incidence of pollution." 21 DCMR § 1199.1. Excessive sediments and suspended solids cause

¹ Mr. Van Wye was the Anacostia Riverkeeper at the time the TSS TMDLs were adopted. His successor is Ms. Dottie Yunger.

or contribute to violations of this standard by causing conditions that, particularly after storms, are substantially more turbid than “those conditions existing before or upstream” of discharges of TSS. *See Yunger Affidavit* at ¶¶ 7-13; *Kostyack Affidavit* at ¶¶ 5-66; *Bedard Affidavit* at ¶¶ 6-8; and *Weiss Affidavit* at ¶¶ 4-7. Therefore this numeric criterion is “applicable” to the TSS TMDLs within the meaning of 33 U.S.C. § 1313(d)(1)(A).

e. Maryland’s water quality standards for turbidity applicable to the Anacostia and its tributaries state that “[t]urbidity may not exceed levels detrimental to aquatic life” and “[t]urbidity in the surface water resulting from any discharge may not exceed 150 [NTU] at any time or 50 units as a monthly average.” COMAR §§ 26.08.02.08(O) and 26.08.02.03-3(A)(5)(a) and (b). Excessive sediments and suspended solids cause or contribute to violations of this standard by impairing aquatic life as discussed above, therefore this numeric criteria are “applicable” to the TSS TMDLs within the meaning of 33 U.S.C. § 1313(d)(1)(A).

D. The Approved TSS TMDLs

The stated intention of the approved TMDLs is:

1) to ensure that aquatic life is protected in the tidal and non-tidal waters of the Anacostia River; 2) to ensure that Maryland’s and the District of Columbia’s sediment-related water quality standards that support aquatic life are met in their respective portions of the watershed; and 3) to ensure in particular that the numeric criteria for water clarity are met in the tidal waters.

Decision, AR # 3 at i. EPA’s approval of the TMDLs is based on the assertion that “[t]he endpoint of the most restrictive the TMDL [sic] (the one that requires the most stringent reduction in sediment loads from the significant sources) is the District of Columbia’s tidal Anacostia River water clarity criterion (0.8 meters). Decision, AR # 3 at iv, 3. This particular numeric water clarity criterion is expressed in the District’s water quality standards as 0.8 meters minimum secchi disk depth, on a “seasonal segment average” basis, from April 1 through

October 31. 1104.8 Table 1. A “secchi disk” is a black and white disk that is lowered into the water in order to visually observe the depth to which the water conditions allow for visibility.

See Decision, AR # 3 at 14.

The TSS TMDL employed “a set of linked water quality models [that] was developed to simulate the delivery, transport and fate of sediments from throughout the watershed to the non-tidal and tidal Anacostia River in Maryland and the District” and to “define the maximum daily loads of total suspended solids (TSS) necessary to assure that the applicable water quality standard for water clarity of 0.8 meters secchi depth will be met.” *Id.* at 17.

II. Jurisdictional Statement

A. Jurisdiction, Venue, and Right of Action

This court has jurisdiction under 28 U.S.C. § 1331. Venue is proper in this court under 28 U.S.C. § 1391(e) because defendant’s official residence is in the District of Columbia. The Court can issue a declaratory judgment and grant further relief pursuant to 5 U.S.C. §§ 702 and 706 and 28 U.S.C. §§ 2201 and 2202. Plaintiffs have a right to bring this action pursuant to 5 U.S.C. §§ 701 through 706.

B. Standing

Anacostia Riverkeeper, Inc., and Friends of the Earth are membership organizations with standing to litigate this case on behalf of their members who use the Anacostia River and its tributaries in the District of Columbia and Maryland for boating, observation from its banks, and other uses, and who suffer injury from the water quality impairments afflicting those waters. *See, e.g. Friends of the Earth v. Laidlaw Environmental Services*, 528 U.S. 167 (2000). Facts supporting Anacostia Riverkeeper and Friends of the Earth’s standing appear in the materials

cited herein and in affidavits of Plaintiffs' staff and members, which are attached hereto and incorporated by reference herein.

III. Argument

A. EPA Offered no Lawful, Reasoned Explanation for Concluding that the TMDL Limits Would Protect Maryland and D.C. Water Quality Standards.

1. EPA gave no rational lawful explanation for ignoring applicable water quality standards

EPA acted unlawfully in approving the TSS TMDLs for the Anacostia because they are not "established at a level necessary to implement the applicable water quality standards." 33 U.S.C. § 1313(d)(1)(A). Under the CWA, state water quality standards "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." 33 U.S.C. § 1313(c)(2)(A). Thus, TMDLs must protect both the designated uses of a water body and the water quality criteria that are based on such uses. *See PUD No. 2 of Jefferson Cty, et al., v. Washington Dept. of Ecology, et al.*, 511 U.S. 700, 717 (1994) ("While enforcement of criteria will in general protect the uses of these diverse waters, a complementary requirement that activities also comport with designated uses enables the States to ensure that each activity—even if not foreseen by the criteria—will be consistent with the specific uses and attributes of a particular body of water.").

In the District of Columbia, several designated uses, along with narrative and numeric criteria that are based on those uses, are applicable to sediment and TSS, as set forth in Part C of the Introduction, above. In the face of these requirements, by EPA's own admission the TSS TMDLs expressly exclude protection of all applicable water quality standards except one – the numeric criterion for water clarity that is aimed at protecting underwater submerged aquatic vegetation ("SAV") in the Chesapeake Bay and the tidal portion of the Anacostia. *See* Decision,

AR # 3 at 12 (these TMDLs are designed to “specifically meet the numeric criteria for water clarity (a secchi depth of 0.8 meters averaged over the [April to October]growing season) in the tidal waters”), *id.* at 22 (“In both jurisdictions, water clarity standards were developed largely based upon the body of research and analysis done for and by the Chesapeake Bay Program (CBP) in its effort to promote the regeneration of SAV in Chesapeake Bay tidal waters, which include the Anacostia River”), and *id.* at 13 (“[I]mpairment of other beneficial water uses such as primary recreation (swimming) and secondary (boating) contact recreation was neither the focus of the listed impairment² nor the goal for these TMDLs”).

The record contains compelling evidence that implementing the approved TMDLs in fact will not achieve these other standards. After approximating the visual effect of the more turbid conditions allowed under these TMDLs and comparing them to conditions he has sampled in the field, Dr. Sulkin stated, with reference to photographs of stormwater samples he has taken elsewhere:

Sample ID	: 2-N SLOPE 1ST O/FLOW	Project # :				
Collected By	: Barry Sulkin					
Collection Date	: 09/23/06 17:20					
Parameter	Result	Det. Limit	Units	Method	Date	
Turbidity	810	0.10	NTU	SM2130B	09/26/06	
Suspended Solids	350	1.0	mg/l	160.2	09/28/06	



² EPA’s claim that recreational values were not the “focus of the listed impairment” is unsupported and invalid, as discussed later in this memorandum.

As can be seen in these two examples, the Turbidity is higher than the TSS by a factor of about 1.5 and 2.5 and in both instances the water is extremely muddy, unacceptable, and not protective of all classified uses (such as recreation, fish & aquatic life). What you see here is not nearly as high as what is being proposed to be allowed at the high flow range by the draft TMDL.

Id., AR # 20 at 4. The Plaintiffs presented this and other evidence and argued that water with such a dirty and discolored appearance violates the narrative standards requiring the District's waters to be free from objectionable color and turbidity, and requiring protection of the aesthetic quality of the water. Plaintiffs also argued and presented evidence that such visibly polluted water impairs the designated uses of swimming, boating, wading, and other forms of primary and secondary recreation in the Anacostia River. *See Video Comments*, AR # 17 at 4:30:

Narrator: Secchi disk tests are not the only measure of the impairments that sediments cause in the Anacostia River. The effects of sediment pollution in the Anacostia are also reflected in the way that local residents and children describe their local neighborhood river.

Anacostia Riverkeeper Brian Van Wye: These days we bring kids out for tours of the River on the boat, and one of the first things we ask is ... 'what do you think about when you think about the Anacostia River?' And they say 'trash, [excrement], bodies, you know, pollution...' and we say, 'have you guys ever been down here, on the river?' and [they say] 'no, no, no, it's gross,' and these are kids who live like one-quarter mile, half-mile from the river. This river should be a great resource for them.

Plaintiffs also argued that water conditions likely to exist after the implementation of these TMDLs would violate the District's numeric NTU criteria. Some of the TMDL waste load allocations employ "flow variable" limits, meaning that during dry times the allowable sediment/TSS loads are relatively small, while under higher flow conditions following storms the allowable sediment/TSS loads are extremely large. *See Plaintiffs' Comments*, AR # 18 at 5:

The maximum daily load limits for critical periods proposed in this Draft TMDL are so enormous they cannot possibly ensure implementation of all applicable water quality standards. For example, the daily maximum load for the highest flow range [for Maryland non-tidal portion of the Anacostia] (4,092.54 tons/day at flows greater than 10.75 cubic meters/second) amounts to approximately 58% of the total annual limit, and approximately 42% of the total seasonal limit.... Yet

the TMDL contains no analysis whatsoever of whether these proposed daily limits will actually protect the designated uses and applicable water quality standards on days when such ... enormous loads occur.

See also Sulkin Memorandum, AR # 20, 1-2 (“using a very standard basic formula frequently used in developing permit limits and TMDLs” to convert the above high-flow load limit into units of concentration and NTU reveals that the load “amounts to about 4,000 mg/L of TSS or a Turbidity of 4,000 to 8,000 NTU or greater, which is very, very muddy and ... totally lacking the sort of water clarity that people find aesthetically pleasing.”).

Neither the District and Maryland, nor EPA claimed that these conditions do not represent the conditions that would be allowed periodically to occur after these TMDLs are implemented. On the contrary, this approximation was based on a quantitative scientific assessment that is explained in detail in the comments. *Id.* EPA therefore had a duty to provide a reasoned explanation that responds to this and the Plaintiffs’ other related comments, considers relevant factors, and is supported by substantial evidence in the record. *See, e.g., Motor Vehicle Mfrs. Ass’n v. State Farm Mutual Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (an agency must examine relevant data and provided an explanation of its decision that includes “a ‘rational connection between the facts found and the choice made.’”). Instead, EPA merely states that “Maryland and the District note in their joint response to comments that ‘85% reductions of sediment loads ... in the TMDL will significantly improve the water quality and make the river certainly more desirable for other uses such as primary and secondary contact recreation.’” Decision, AR # 3 at 3. EPA did not even analyze whether the chosen loads would ensure compliance with the above-referenced NTU or narrative water quality criteria, much less refute the violations shown by the record. That alone is grounds for finding the decision to approve the

TMDLs arbitrary and capricious. *See Chemical Mfrs. Ass'n v. E.P.A.*, 28 F.3d 1259, 1265-66 (D.C. Cir. 1994).

EPA claims in its Decision Rationale that “[a]lthough in some cases it may be efficient to address all of the identified impairments in a particular water body at the same time in a single TMDL, it is not a requirement of the Clean Water Act or EPA’s regulations for TMDLs to be established that way.” *Id.* This statement sets up a straw man and then attempts to knock it down in conclusory fashion. Plaintiffs do not claim that TMDLs must address all identified impairments in the Anacostia, such as impairments from violations of standards for bacteria or organic chemicals. Rather Plaintiffs assert that the CWA’s requirement that TMDLs be “established at a level necessary to implement the applicable water quality standards,” 33 U.S.C. § 1313(d)(1)(A), means that the TSS TMDLs must address all designated uses, narrative standards, and numeric criteria that are applicable to sediment and TSS. Even granting for the sake of argument that EPA meant to state that it is not required to implement all sediment-related water quality standards through this TMDL, such a statement would be directly contrary to the Act. In effect, it reads extra words into the statute, such that under EPA’s approach it would read: “established at a level necessary to implement [*some of*] the applicable water quality standards.” The CWA does not permit the District and Maryland to avoid the Act’s TMDL requirements by addressing only a subset of the applicable water quality standards that it prefers to address—here a subset of one.

In an attempt to cure this problem, EPA in its final Decision asserted, without offering a supporting basis or rationale, that “impairment of other beneficial uses such as primary recreation (swimming) and secondary (boating) contact recreation was [not] the focus of the listed impairment.” Decision, AR # 3 at 13; *see also id.* at 1 (“These TMDLs were established to

address impairment of water quality as identified in the District of Columbia's... 1998 Section 303(d) list of impaired waters and Maryland's 1996 Section 303(d) list of impaired waters."). However, EPA has provided no factual support for the notion that the listing of impairments for sediment/TSS in the District's or Maryland's 303(d) lists are limited to clarity for the purpose of protecting underwater submerged aquatic vegetation, and in any event this approach would be unlawful because "each activity—even if not foreseen by the criteria—will be consistent with the specific uses and attributes of a particular body of water." *PUD No. 2*, 511 U.S. at 717. In the Anacostia River, sediment and TSS clearly contribute to impairments of uses not protected under these TMDLs.

EPA's preferred approach is also arbitrary and capricious under the circumstances. EPA (and Maryland and D.C.) failed to determine or even assess whether the other applicable sediment-related water quality standards will be achieved after implementation of these TMDLs. They have candidly admitted that they are making no commitment to develop more TSS TMDLs to address those other water quality standards, absent some future finding of need. *See* Decision, AR # 3 at 13 ("The states also add that if after implementation of these TMDLs, those uses are impaired, additional measures, including possible development of additional or revised TMDLs would be undertaken."). These authorities cannot lawfully claim to have more time to develop additional TMDLs for each TSS-related standard at some undefined later time, because the deadline for adopting TMDLs for all impairments passed years ago. *See Kingman Park Civic Ass'n v. U.S. EPA*, 84 F.Supp.2d 1, 1 (D.D.C. 1999) ("More than eighteen years after its first TMDL submission was due, the District of Columbia had yet to forward a single TMDL calculation to the EPA"). Thus, it is irrational in the extreme for EPA to imply that additional TMDLs will be submitted to address the other TSS-related standards violations. Moreover, this

approach ignores substantial evidence in the administrative record concerning adverse conditions that will be allowed after the load reductions in these TMDLs are fully implemented.

EPA did purport to make a “finding” that “the District’s and Maryland’s conclusion that the improvement of water quality after implementation of these TMDLs will substantially improve, if not achieve aesthetic primary and secondary recreation water uses is a reasonable conclusion.” Decision, AR # 3 at 13. This “finding” is deficient for three reasons: first, it is insufficient on its face because the CWA does not merely require TMDLs to “substantially improve” water-related uses, but rather requires TMDLs to be “established at a level necessary to implement the applicable water quality standards.” 33 U.S.C. § 1313(d)(1)(A). Second, it is based on the agency’s “belief,” a bare assertion, which is not a substitute for a reasoned explanation based on substantial evidence. Third, none of the TMDL authorities claimed that it is not possible to establish a measurable, enforceable TMDL allocation to address the District’s water quality criteria for protecting aesthetic values. Instead, they simply failed to address substantial comments by the Plaintiffs stating that such limits are indeed possible to develop, and that “EPA has previously provided guidance to TMDL authorities on how to develop TMDLs for narrative and aesthetic water quality standards,” citing “*EPA Protocol for Developing Sediment TMDLs*, EPA 841-B-99-004 (October 1999); and *EPA, Developing Water Quality Criteria for Suspended and Bedded Sediments (SABs); Potential Approaches* (Draft, August 2003), avail. at <http://www.epa.gov/waterscience/criteria/sediment/>.” *Plaintiffs’ Comments*, AR # 18 at 6. As Plaintiffs stated in their comments, “[we] provide these citations to illustrate that there are available approaches that EPA has already approved for translating narrative standards into measurable, enforceable load limits for protecting recreation and aesthetic enjoyment.” *Id.*, AR # 18 at 6. In violation of basic principles governing administrative action, neither EPA nor

Maryland and D.C. provided any explanation for why these approaches could not be used to address the applicable narrative water quality standards. *See Chemical Mfrs. Ass'n v. E.P.A.*, 28 F.3d 1259, 1265-66 (D.C. Cir. 1994) (remanded to agency because, when commenters “presented specific objections to the EPA’s application of its model ... EPA responded in a high-handed and conclusory manner,” and EPA’s response revealed an “implication that it was committed to its position regardless of any facts to the contrary.”).

2. EPA provided no rational explanation how protecting water quality as an average over long periods will protect the Anacostia from periodic violations of sediment-related water quality standards.

By ignoring all but one applicable criterion, *i.e.* the numeric water clarity criteria designed to ensure the growth of underwater grasses over the course of the April-October growing season, EPA has allowed violations of other standards applicable to sediment that have adverse effects on much shorter timescales. EPA claims only that “when considered cumulatively over time, [the approved loads] will implement the District’s and Maryland’s water clarity criteria expressed as a seasonal average,” and that “periodic high daily loadings does not mean that these TMDLs have not been set at a level necessary to attain and maintain the applicable water quality criteria expressed as a seasonal average.”) (emphasis added). Decision, AR # 3 at ii, 27. Thus, the TMDLs expressly allow that “[o]n a daily basis these variable loads may exceed loadings necessary to achieve a certain secchi depth measurement for that day.” *Id.* *See also Comment Response Document of Maryland and D.C.* (June 21, 2007), AR # 4 at 17:

The daily loads reflect the extreme variability of conditions in the river and allow for possible high incursions of sediment on days where extremely high flow conditions prevail. Nevertheless, the range of daily loads must *generally* meet standards from day to day, because they must, over the course of a given growing season and year, *also* meet the seasonal and annual loading caps determined to protect water clarity in the long term.

Id. (italic emphasis in original). But by definition such an approach does not protect the Anacostia from periodic high turbidity conditions that impair other designated uses and water quality standards in timeframes shorter than a season. *See Memorandum of Sulkin*, AR # 20 at 3:

[T]he weakness of the draft TMDL is that, even though they do include daily maximums, the sediment values likely to be seen at times during higher flows will yield unacceptably muddy water not protective of all recreational and aesthetic enjoyment uses, and they may also fail to protect fish and plants under, or as a result of these high flow conditions.

This is unlawful. The CWA and implementing regulations make clear that it is at exactly these times when the TMDLs must protect the water quality in the river. *See* 40 C.F.R. § 130.7(c)(1) (“Determinations of TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.”). *See also Yunger Affidavit* at ¶¶ 7 (“When it rains approximately 1/2 inch or more, stormwater drains directly into the Anacostia River untreated”); *Kostyack Affidavit* at ¶¶ 6 (“I am concerned that these TMDLs, even after implemented, will not protect the waters in the Anacostia watershed and downstream waters in the Potomac from periodic high peak loads of sediment and suspended solids”); *Bedard Affidavit* at ¶¶ 7 (“When it rains, especially when the rain is heavy and prolonged, I have observed so much sediment in the river after a rainfall that the river is completely brown in color”); and *Weiss Affidavit* at ¶¶ 7 (“I have learned that even periodic days or even hours, with excessive sediment and murkiness can kill sensitive aquatic organisms living in the river.” I am concerned... because I know that sediments and other solid pollution can be harmful or even toxic to fish, shellfish, and other tiny aquatic creatures that are sensitive to even short-term pollution.”).

B. EPA’s Approval Violates Requirements for Allocating Load Limits to Individual Point Sources.

The TSS TMDLs violate the CWA’s implementing regulations because they do not contain daily loads for individual point source outfalls, but instead only allocate daily loads to all

sources within large segments of the River. Specifically, in Maryland the TMDL loads for point sources are allocated among three broad areas and categories (1) all outfalls in tidal stormwater systems (municipal separate storm sewer systems or “MS4s”), (2) all outfalls in non-tidal MS4s, and (3) all other non-tidal point sources. *Decision*, AR # 3 at iii. In D.C., the TMDL loads are allocated among seven broad categories: (1) all MS4 outfalls in Lower Beaverdam Creek, (2) all MS4 outfalls in Watts Branch, (3) all MS4 outfalls in the Upper Anacostia, (4) all combined sewer overflow (“CSO”) outfalls in Upper Anacostia, (5) all MS4 outfalls in Lower Anacostia, (6) all CSO outfalls in Lower Anacostia, and (7) all other point sources in Lower Anacostia. Further sub-allocations are assigned to a handful of waste water facilities and to counties or areas within the respective municipal stormwater systems, but even these are aggregates of numerous individual outfalls within those sources. *See Decision*, AR # 3 at 39-40.

Under the CWA, “point source” means, among other things, “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit,” et cetera. 33 U.S.C. § 1362(14) (emphasis added). Under the Act’s implementing regulations, TMDLs must consist of “the individual WLAs [wasteload allocations] for point sources and LAs [load allocations] for nonpoint sources and natural background.” 40 C.F.R. § 130.2(i). Further, “wasteload allocations” are the “portion of a receiving water’s loading capacity that is allocated to one of its existing or future point sources of pollution.” *Id.* § 130.2(h) (emphasis added).

Despite these clear requirements, the TMDLs contain no wasteload allocations for individual point source outfalls. Plaintiffs objected to this omission and pointed to evidence in the record that the TMDL authorities have sufficient information to allocate the TSS TMDL loads on a much smaller scale than the allocations included in the approved TMDL document. *See Plaintiffs’ Comments*, AR # 18 at 7-8 and *Sulkin Memorandum*, AR # 20 at 4-5. EPA failed

to resolve or otherwise respond to this comment in its Decision Rationale, and Maryland and D.C. stated that the chosen approach followed EPA guidance. *Comment Response Document*, AR # 4 at 3. However, it is settled law that agency guidance memoranda cannot authorize actions that do not comply with the plain language of its promulgated regulations. *See, e.g. Central Laborers' Pension Fund v. Heinz*, 541 U.S. 739, 748 (2004) (“[N]either an unreasoned statement in [an agency] manual nor allegedly longstanding agency practice can trump a formal regulation with the procedural history necessary to take on the force of law.”).

Not only are allocations to individual point source outfalls required by law, they are also needed as a practical matter to ensure that these point sources collectively achieve compliance with applicable water quality standards. Under the foregoing regulations, a wasteload allocation must be the “amount of the acceptable load (lbs/day) that can come out of each pipe discharging to the streams and river involved. This WLA then can become, or be turned into a permit limit or value against which monitoring data can be directly compared to see if the WLAs, and cumulatively the TMDL are being achieved.” *Sulkin Memorandum*, AR # 20 at 4. Instead, the concept and use of the term “wasteload allocation” (WLA) in the approved TSS TMDL is inconsistent with its regulatory definition. The TMDL uses the term “to mean how much is in the river segment or tributary, not how much can come out of each contributor or point source (pipe) discharging to the stream or river. This makes it hard or impossible to do actual real-time monitoring – that is taking a sample for TSS – and comparing it to any given WLA.” *Id.* Because the TMDL treats individual allocations as “a sub-total of all WLAs for a river segment or tributary, but with no way to trace it back to any individual point source discharge,” *Id.*, the practical effect is that every outfall within the area to which the allocation is assigned could conceivably discharge the entire allocation, with no accountability under the approved TMDL.

Thus, EPA's approval of this approach was both an unlawful deviation from its regulations, and arbitrary and capricious.

C. Margin of safety

The Clean Water Act requires TMDLs 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). EPA has provided no rational explanation of how these TMDLs provide an adequate, objectively identifiable and measurable margin of safety – or any margin of safety, for that matter. In fact, EPA's "margin of safety" analysis bears the clear characteristics of afterthought.

EPA claims that the margin of safety "in these TMDLs is implicit and identified as a separate allocation." Decision, AR # 3 at 42. The latter part of this claim, that the margin of safety is "identified in a separate allocation" is flatly untrue, as the TMDL allocation tables under the heading of "MOS" only state the word "Implicit." This is not a separate allocation for the margin of safety, but rather only states the obvious absence of an identified, objectively measurable margin of safety. *Id.*, AR # 3 at iii-vi.

EPA further claims that an implicit margin of safety exists because "computer simulations used to compute this TMDL, contained several implicit conservative assumptions used in the modeling framework." *Id.*, AR # 3 at 42. EPA then lists a few factors that the TMDL model either does not account for, such as the potential for "gradual improvement in clarity that will result from the [underwater vegetation] growth," or that the model under-predicted, such as "minimum secchi depth" "under existing conditions." *Id.*

EPA's approval of this "implicit" margin of safety is both legally insufficient and arbitrary and capricious under the circumstances. First, reliance solely on an "implicit" margin

of safety that is neither measurable nor verifiable provides no rational basis for determining that the statutory test for a margin of safety has been met; this is legally inadequate. *See Bowen v. American Hosp. Ass'n*, 476 U.S. 610, 627 (1986) (Congressional delegation of authority to administrative agencies carries with it a “responsibility of the agency to explain the rationale and factual basis for its decision”). In fact, EPA’s Decision Rationale provides no explanation or analysis demonstrating that each of the claimed “conservative assumptions” actually create a margin of safety. For example, it states without explanation that “Municipal waste water treatment plants and industrial point sources (PS) were simulated using their weekly maximum and daily maximum permitted concentrations, respectively, but were given annual WLAs based on their monthly permitted concentrations.” Without more, this is an empty statement that offers no explanation of how this fact actually results in a more conservative TMDL.

Moreover, there was no formal analysis of the uncertainties and lack of knowledge underlying these TMDLs. *See* Decision, AR # 3 at 42-43. For example, the TMDLs use measures of TSS concentration to achieve the District’s secchi-depth criterion. *See* Decision, AR # 3 at 24 (stating that the TMDLs employ a “light extinction module to convert the water column TSS concentrations to equivalent Secchi dept.” However, Plaintiffs submitted comments and scientific analysis showing that the correlation of TSS to secchi depth involves great uncertainty, which requires a commensurate margin of safety to account for this uncertainty. *See Memorandum of Jack D. Smith, TMDLs for Total Suspended Solids in the Anacostia River* Nov. 26, 2001), AR # 18, Exhibit 1 to Plaintiffs Comments at 2-3 (explaining why “[t]he statistical uncertainty in [the model’s] correlation of light attenuation with TSS in the Anacostia indicates an appropriate margin of safety would be at least 50 to 60 percent.”). EPA offered no basis for concluding that the “implicit” margin of safety claimed in the TMDLs is sufficiently

conservative to take into account, as the Act requires, “any lack of knowledge concerning the relationship between effluent limitations and water quality.” 33 U.S.C. § 1313(d)(1)(C); *see also* 40 C.F.R. § 130.7(c)(1) (same). Because there is no analysis connecting the existing uncertainties and lack of knowledge with the claimed margin of safety, it is impossible for the EPA to justify its finding that the margin of safety is adequate. *See Bluewater Network v. EPA*, 370 F.3d 1 (DC. Cir. 2004) (“[I]n order to determine whether that decision reflects a rational connection between the facts found and the choice made, a reasonable explanation of the specific analysis and evidence upon which the Agency relied is necessary.”) (citing *State Farm*, 463 U.S. at 43).

VI. Requests for Relief

For the above stated reasons, Plaintiffs respectfully request that this Court enter an order to (1) declare EPA’s approval of the Anacostia TSS TMDLs unlawful, and arbitrary and capricious, for the reasons stated above, (2) vacate EPA’s approval of the TMDLs; and (3) stay the Court’s order of vacatur for one year to allow EPA to adopt or approve TMDLs that comply with the Court’s order and the applicable statutory and regulatory requirements.

In accordance with Local Rule 30(c), a proposed order is attached.

Pursuant to Local Rule 30(f), Plaintiffs respectfully request oral argument.

Submitted this 17th day of July, 2009.

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

ANACOSTIA RIVERKEEPER, INC.
and FRIENDS OF THE EARTH,

Plaintiffs,
v.

LISA JACKSON, Administrator,
United States Environmental Protection Agency,
Defendant,
DISTRICT OF COLUMBIA WATER AND
SEWER AUTHORITY,
Intervenor.

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

**PLAINTIFFS STATEMENT OF MATERIAL FACTS
AS TO WHICH THERE IS NO GENUINE ISSUE**

Pursuant to Local Civil Rule 7(h), plaintiffs note that there are no material facts in this case. *See, e.g., Marshall County Health Care Auth. v. Shalala*, 988 F.2d 1221, 1226 (D.C. Cir. 1993) (“Appellants ... overlook the character of the questions before the district court when an agency action is challenged. The entire case on review is a question of law, and only a question of law.”)

Respectfully submitted this 17th day of July, 2009.

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