UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

ANACOSTIA RIVERKEEPER, INC., KINGMAN PARK CIVIC ASSOCIATION, and POTOMAC RIVERKEEPER NETWORK,

Plaintiffs,

v.

SCOTT PRUITT, Administrator, U.S. Environmental Protection Agency, and UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Defendants.

Civil Action No. 1:16-cv-1651-CRC

PROPOSED BRIEF OF AMICI CURIAE
WET WEATHER PARTNERSHIP AND
NATIONAL ASSOCIATION OF CLEAN WATER AGENCIES
IN SUPPORT OF INTERVENOR-DEFENDANT DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

LOCAL CIVIL RULE 7(o)(5) STATEMENTS

Pursuant to L. Civ. R. 7(o)(5) and Fed. R. App. P. 29(c), the amici curiae make the following statements:

CORPORATE DISCLOSURE STATEMENT

As stated in the L. Civ. R. 7.1 certification statement attached to the Motion for Leave to Participate as Amici Curiae, the Wet Weather Partnership and National Association of Clean Water Agencies ("Municipal Associations") are non-profit corporations. No parent companies, subsidiaries, or affiliates of amici have any outstanding securities in the hands of the public.

IDENTITY AND INTERESTS OF AMICI

The Wet Weather Partnership is a nationwide association of dozens of local governments and their agencies formed in 1989 to make a positive contribution to federal laws and regulations governing the design and operation of combined and sanitary sewer systems, wastewater treatment plants, and municipal separate storm sewer systems. The National Association of Clean Water Agencies represents the interests of nearly 300 of the nation's wastewater and stormwater management agencies serving the majority of the sewered population of the United States.

Municipal Associations' members operate municipal wastewater treatment plants that often are subject to effluent limits and Total Maximum Daily Loads ("TMDLs") for bacteria. This matter concerns unsettled questions of law and agency practice that likely will have implications for similarly situated Municipal Associations members.

AUTHORITY TO FILE

By email on November 21, 2017, Municipal Associations requested the position of all parties on the motion to submit this amicus brief. Counsel for Defendants U.S. Environmental Protection Agency and Administrator Pruitt responded on November 22, stating that they take no

position on the motion. Counsel for Plaintiffs Anacostia Riverkeeper, Kingman Park Association, and Potomac Riverkeeper Network counsel responded on November 28, stating that they intend to oppose the motion, and if they motion is granted they would ask for one additional week for their reply brief. Counsel for Intervenor-Defendant D.C. Water responded on November 30, stating that they have no objection.

AUTHORSHIP AND FINANCIAL CONTRIBUTIONS

No party or party's counsel authored this brief in whole or part. No party or party's counsel contributed money that was intended to fund preparing or submitting this brief. No person other than other than amici, their members, and/or counsel contributed money that was intended to fund preparing or submitting the brief.

TABLE OF CONTENTS

TABLE OF AUTHORITIES

CASES

STATUTES

REGULATIONS

OTHER AUTHORITIES

The Wet Weather Partnership and National Association of Clean Water Agencies ("Municipal Associations," collectively) respectfully submit this brief as amici curiae in support of Intervenor-Defendant District of Columbia Water and Sewer Authority ("D.C. Water").

INTRODUCTION

On its face, the complaint filed by Plaintiffs Anacostia Riverkeepers et al. ("Riverkeepers") challenges the U.S. Environmental Protection Agency's ("EPA") approval of the District of Columbia's *E. coli Bacteria Allocations and Daily Loads for the Potomac River and Tributaries* (Dec. 2014) ("2014 Bacteria TMDLs"). However, the Riverkeepers' arguments misrepresent the purpose and requirements of total maximum daily loads ("TMDLs") under the Clean Water Act ("CWA") and are in substance a collateral attack on the District's water quality criterion for bacteria and National Pollutant Discharge Elimination System ("NPDES") permits limits for facilities discharging bacteria to the District's waters. Neither the District's bacteria criterion (which is based on EPA's national recommended criterion) nor any NPDES permit limits for bacteria discharges are properly subject to review by the Court in this action. Furthermore, the Riverkeepers raised substantially the same arguments in a prior related matter and this Court soundly rejected the contention that TMDLs must set enforceable daily maximum limits when the underlying criterion the TMDL is intended to achieve is expressed with a longer duration (a monthly average in that case). *See Anacostia Riverkeeper, Inc. v. Jackson*, 798 F. Supp. 2d 210, 246 (D.D.C. 2011).

EPA's national recommended water quality criterion for bacteria in recreational waters provides that freshwater rivers and lakes will be suitable for recreational use if *E. coli*

concentrations remain below a 30-day geometric mean[1] of 126 cfu/100mL.[2] *Id*. at 6, tbl. 1. By setting the national recommended criterion as a 30-day geometric mean, EPA and the states recognize that a river will experience daily fluctuations in bacteria levels while remaining suitable for swimming, fishing, boating, and other recreational activities as long as the 30-day geometric mean is achieved. Although EPA has changed the target bacteria species and concentration value over the years, the use of a 30-day geometric mean for the national recommended bacteria criterion has remained a constant for 40 years.

The Riverkeepers' challenge effectively invites the Court to rewrite the District's water quality criterion for bacteria to convert it from a 30-day geometric mean value to a daily maximum value. At the same time, they seek to have the Court impose predetermined daily maximum effluent limits on bacteria discharges from NPDES-permitted facilities. Neither one of these objectives can be accomplished through their challenge to the TMDL at issue.

State water quality standards and NPDES permit limits are set through separate regulatory processes. EPA's regulations afford states broad authority to express their numeric water quality criteria using any duration (daily, monthly, seasonal, or annual averages) as scientifically appropriate. Once a water quality standard is established, instream monitoring is performed to

[1] Geometric mean is a mathematical calculation used to calculate the average of things that are statistically different. When one thinks of averages, they are normally referring to arithmetic means; for example, if you wanted the average number (arithmetic mean) of apples in different baskets, you would add the number of apples in each basket divided by the number of baskets. If, however, you wanted the average return (geometric mean) on several different stocks, you would multiply the percent return from each stock and then set them to the power of 1 over the number of stocks. Thus, the geometric mean of 2 and 8 is $(2x8)^{(1/2)}$, or 4, and the geometric mean of 4, 8.3, 9, and 17 is $(4x8.3x9x17)^{(1/4)}$, or 6.81.

[2] EPA's national recommend criteria express the bacteria limit as 126 "cfu" means "colony forming unit." In contrast, the District's water quality criterion is expressed as 126 "MPN," which stands for "Most Probable Number." The different terminology refers to different methods of quantifying bacteria counts, *see Recreational Water Quality Criteria* at 10, which are not relevant to this matter.

assess whether it is attained by the State and approved by EPA. If it is not attained, then a TMDL is prepared as a guide with one or more loading reduction scenarios that will restore the water to attainment with the water quality standard at issue. If that water quality standard is expressed as a seasonal average, attainment will be judged on a seasonal basis and not a daily (or other duration) basis. The formal State criteria-setting process, followed by formal EPA approval pursuant to Section 303(d) of the CWA, 33 U.S.C. § 1313(d), would be meaningless if TMDLs for impaired waters automatically convert the duly adopted water quality standard (here a 30-day geometric mean) into daily maximum criteria. Similarly, the CWA prescribes a process for setting NPDES permit limits on the appropriate time frame (e.g., weekly and monthly average limits) based on the expression of the water quality standard, nature of the pollutant, and facility type. That important regulatory process, and the procedural rights and safeguards it provides for permittees, would be overridden if TMDLs must set daily maximum limits for individual permittees. In sum, the Riverkeepers' challenge, if successful, would effectively rewrite the role of TMDLs in the CWA regulatory structure vis-à-vis state water quality criteria and NPDES permitting. The Riverkeepers' challenge therefore must be dismissed.

SUMMARY OF ARGUMENT

In an obvious attempt to attack the District's water quality criteria for bacteria and predetermine NPDES permit effluent limits for bacteria, the Riverkeepers' arguments misconstrue the role of TMDLs in two key respects.

First, Riverkeepers argue that the 2014 Bacteria TMDLs are unlawful because the TMDLs do not set a "ceiling or upper limit" daily maximum load for the amount of bacteria that can enter the subject rivers. There is good reason the TMDLs do not set such hard daily maximum loads: the District's applicable water quality criterion for bacteria in Class A (i.e., Primary Contact

Recreation) waters is expressed as a 30-day geometric mean of 126 MPN *E. coli*/100mL. The TMDLs include operative annual loads that were developed through a modeling exercise to ensure that the monthly geometric mean water quality criterion is not exceeded. These annual loads are used for permitting actions. The TMDLs also express daily loads, but consistent with precedent and EPA guidance, the daily load expressions are intended to be used only for informational purposes. The *daily* load estimates do not change the *monthly* geometric mean water quality standard. Instead, the daily load estimates are considered in the development of appropriate permit limits for affected dischargers to ensure the monthly geometric mean water quality standard will be attained.

Riverkeepers argue that for the Anacostia River and other waters covered by the TMDLs, bacteria levels should be capped at an undetermined maximum concentration *every day*.[3] Riverkeepers' quarrel is with District's water quality standards, not the 2014 Bacteria TMDLs. Like most states, the District has elected to rely on EPA's national recommended bacteria criterion to set the recreational water quality standards for the District's Class A waters. Because the underlying bacteria criterion, developed to ensure that the District's Class A waters are suitable for recreational use, is set as a maximum 30-day geometric mean, it follows that the TMDLs *designed to implement that criterion* would use the same 30-day geometric mean as the target endpoint. The TMDLs simply implement the governing water quality standards, which is what they are legally required to do. 33 U.S.C. § 1313(d)(1)(C). Riverkeepers' challenge is a collateral attack on the District's water quality standards and, by extension, EPA's national recommended recreational water quality criteria. This substantive challenge cannot be sustained through a TMDL

[3] *See*, *e.g.*, Pl's. Mot. 27 ("[T]he total maximum daily loads only purport to implement the 30-day geometric mean criteria while failing to address the designated primary contact recreational use, the single sample numeric criteria, or the narrative criteria.")

appeal (given that the TMDL simply implements the water quality standard). Plaintiffs would have the TMDL tail wag the State water quality standard dog.

Second, Riverkeepers argue that the 2014 Bacteria TMDLs are unlawful because they do not express their daily loads as inflexible daily *limits* on the amount of the *E. coli* that individual sources (namely, DC Water) may discharge.[4] This is a collateral attack on the process outlined in the CWA regulations by which water quality-based effluent limitations are derived for NPDES permits. TMDLs do not set limits on discharges; NPDES permits do. TMDLs are planning documents that identify one or more planning scenarios to assist (but not bind) permitting authorities in the development of water-quality based effluent limits for NPDES permits. EPA's regulations prescribe how NPDES permit limits should be derived. These regulations would be rendered meaningless if TMDLs were required to include inflexible daily limits on individual permittees' discharges, as Riverkeepers appear to argue here. This would be particularly problematic for publicly owned wastewater treatment plant (POTW) operators—and POTWs with combined sewer systems most of all—because the CWA regulations include important protections against the imposition of impracticable daily maximum limits on their discharges. *See* 33 U.S.C. § 1342(q)(1); 40 C.F.R. § 122.45(d)(2).

The practical effect of Riverkeepers' argument, if it succeeds, is that whenever a water is determined not to attain a water quality standard expressed on a non-daily basis, a TMDL to implement that water quality standard would convert that non-daily water quality standard into a daily maximum standard. A TMDL includes daily informational loading expressions and scenarios as a tool for regulators to determine appropriate pollutant loading reduction strategies and NPDES

[4] *See*, *e.g.*, Pl's. Mot. 21 ("'No reasonable interpretation of the statutory instruction to establish' a total maximum daily load 'would allow the agency to reserve to itself effectively complete discretion to trigger an exemption' allowing total maximum daily loads to be exceeded.").

permitting requirements to achieve the applicable non-daily water quality standard. Daily informational loadings do not change the governing standard, nor do they bind NPDES permit writers as to how permit limits must be expressed to implement the TMDL. Any ruling to the contrary would cause a seismic upheaval in more than four decades of NPDES permitting to implement water quality based criteria.

A ruling adopting the Riverkeepers' view would undermine pollution control programs across the country, ranging from the Chesapeake Bay Program (based upon achieving annual average nutrient and sediment levels) to every community's wastewater treatment discharge, as well as combined sewer overflow control programs nationwide.

ARGUMENT

I. DAILY LOAD EXPRESSIONS IN TMDLS ARE NOT INTENDED TO OVERRIDE STATE WATER QUALITY STANDARDS EXPRESSED ON A NON-DAILY BASIS (SUCH AS THE DISTRICT'S MONTHLY GEOMETRIC MEAN FOR *E. COLI*)

Riverkeepers' argument is built on the faulty premise that the daily loads in a TMDL must be expressed as an enforceable "ceiling or upper limit" on the amount of the target pollutant that can enter a waterbody *each day*. Pl. Br. 19. Plaintiffs fundamentally misunderstand the purpose of the daily loads expressed in TMDLs. The 2014 Bacteria TMDLs at issue here are intended to facilitate compliance with a water quality criterion for *E. coli* that is expressed as a 30-day geometric mean. 2014 Bacteria TMDLs 3–4. Inherent in the adoption of a geometric mean (or any other type of average) is a recognition that daily pollutant levels will vary. Rather than specifying a daily maximum, the District's adoption (along with every other State) of a geometric mean is expressly intended to accommodate daily load fluctuations. There could be no more direct rejection of Plaintiffs' asserted maximum daily load requirement than the actual geometric mean expression of the District's *E. coli* standard. Accordingly, EPA logically and properly explained

that the daily loadings expressed in the 2014 Bacteria TMDLs are not intended to "set a maximum or ceiling on *E. coli* loads during any given 24-hour period." EPA, Decision Rationale 2014 *E. coli* Bacteria Allocations and Daily Loads for the Potomac River and Tributaries, TMDL Revision, District of Columbia 10 (Jan. 13, 2017). To state otherwise would be to impermissibly change the District's monthly geometric mean criterion. EPA further explained that the daily load expressions must be "properly understood in light of the applicable numeric water quality criterion (126 MPN *E. coli*/100 ml geometric mean over a 30-day period)." *Id*.

EPA's position is consistent with sound Agency guidance and a decade of precedent on the expression of daily loads for pollutants that are not traditionally managed on a daily basis, such as bacteria, sediment, and nutrients. Riverkeepers now seek to overturn this precedent, which would undermine hundreds of sewer overflow control programs nationwide, as well as almost every NPDES permit for publicly-owned treatment plants.

A. The Expression of the District's Water Quality Criteria as a 30-Day Geometric Mean Reflects a Rational and Time-Tested Decision on How to Manage Bacteria in Recreational Waters

Although the District's water quality criterion for bacteria in recreational waters is not under review in this action, understanding the rationale for the expression of the criterion as a 30-day geometric mean underscores why the Riverkeepers' call for *daily* "ceiling or upper limit" loads for bacteria is completely baseless. EPA's national recommended bacteria criterion, upon which the District's criterion is based, is founded on several key observations. This includes the recognition that higher concentrations of bacteria generally present higher risk of illness. However, there are many circumstances beyond bacteria counts that materially influence the potential risk, and exposure to even a single bacteria cell may be sufficient to cause illness under the right conditions. *See* EPA, Quality Criteria for Water 80–81, 88 (1976) ("EPA Red Book"). The objective of the water quality criterion development was to establish a statistical relationship

between bacteria levels and illness rates and to set the criterion at a level corresponding to a statistically "acceptable health risk[] for swimmers." EPA, *Quality Criteria for Water* 52–53 (1986) ("EPA Gold Book").[5] Thus, the decision to utilize a geometric mean for bacteria criteria is a scientifically proven method for states to make a "risk management" decision regarding acceptable incidence of minor illnesses for recreational users of state waters. EPA, *Recreational Water Quality Criteria* 6 (2012) ("*Recreational Water Quality Criteria*").[6]

EPA's national recommended bacteria criterion includes a daily bacteria number called a "Statistical Threshold Value" or "STV" for *E. coli* of 410 cfu/100 ml. This number is not, however, a "ceiling or upper limit" on bacteria levels in waters. Rather, EPA recommends that states use the STV as a "value that should not be exceeded by *more than 10% of the samples* used to calculate" the 30-day geometric mean for samples from a waterbody. *Recreational Water Quality Criteria* 4 (emphasis added). It is important to understand that the STV is not a *health-based* maximum number; it is simply a *statistical* value representing the 90% percentile of the expected distribution of water quality samples for a waterbody that is in compliance with the recommended geometric mean criterion of 126 cfu/100 ml.

The District's bacteria criterion adopts the approach in EPA's national recommended criterion. The operative criterion for Class A recreational waters is a maximum geometric mean of 126 MPN/100 ml *E. coli* based on at least five samples. D.C. Mun, Reg. tit. 21, § 1104.8 tbl. 1. The District's water quality standards also includes a "Single Sample Value" of 410 MPN/100 ml. However, consistent with the purpose of the STV in EPA's recommended criterion, the District's

[5] The EPA Red Book and Gold Book, which include the prior iterations of EPA's national recommended water quality criteria, are available at https://www.epa.gov/wqc/historical-water-quality-criteria-documents.

[6] *Available at* https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf.

regulations clarify that the Single Sample Value "*shall be used for assessing water quality trends only*." *Id*. § 1104.8 tbl. 1, n.1 (emphasis added). This means that the STV is not to be used to evaluate compliance with the bacteria criterion or to set NPDES permit limits.

In accordance with the adopted criterion, bacteria discharges to District waters are not managed on a daily basis. This is a necessary decision from a management perspective as well as a public health perspective. Bacteria loadings are highly episodic. Loads typically remain low most of the time and then peak during storm events as stormwater washes bacteria on the land into waterways. Larger storms generally produce higher bacteria loadings, particularly if a storm is sufficiently large for combined sewer overflows to occur. However, because peak bacteria levels generally occur with storms and high waters, they occur at times when rivers are the least suitable, and least used, for recreational activities. Notwithstanding these fluctuations in bacteria concentrations, the District has made the sound policy choice, consistent with 40 years of EPA recommendations, to deem its Class A waters suitable for recreation so long as the monthly geometric mean remains below 126 MPN/100 ml. As much as Riverkeepers would like it to be the case, the wisdom of the District's geometric mean standard is not before this Court in this action.

B. The 2014 Bacteria TMDLs' Informational Daily Load Expressions Are Consistent with EPA Guidance and Precedent for Water Quality Criteria That Are Expressed as Weekly, Monthly, or Annual Averages

TMDLs are planning documents that present a state or EPA with one or more scenarios that identify the "greatest amount of pollutant loading that a waterbody can receive without violating water quality standards." EPA, *Tech. Guidance Manual for Development Total Max. Daily Loads* 2-1 (Sept. 1995)[7]; *see also Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281, 291 (3d Cir. 2015). Many water quality standards for pollutants, such as bacteria, sediment, and nutrients,

[7] *Available at* https://nepis.epa.gov/Exe/ZyPDF.cgi/200055WG.PDF?Dockey=200055WG.PDF.

are not expressed on a *daily* basis because short-term fluctuations in levels of these pollutants in a waterbody are unavoidable and have little or no material effect on the designated use, which the water quality criteria are designed to protect. The Chesapeake Bay TMDL is a good example. EPA elected to develop a TMDL that is intended to control *annual* loads to the Bay. EPA explained its rationale for supporting the decision to regulate total annual nutrient loads (rather than seasonal, monthly, weekly or daily loads) as follows:

> The nutrient dynamics of Chesapeake Bay and its tidal tributaries are complex. Unlike toxics and many conventional pollutants that have a direct and somewhat immediate effect on the aquatic system, nutrients have no direct effect, but instead are "processed" in several discreet steps in the Bay ecosystem before they have their full effect. . . . The integration of nutrient loads from all sources over time ameliorates intraannual load fluctuations from individual sources, with the Bay responding to overall loads on an annual scale, while showing little response to monthly variations within an annual load.

Memo. from James A. Hanlon, Dir., EPA Office of Wastewater Mgmt., to Jon Capacasa, Dir., EPA Reg. 3 Water Permits Div. 3 (Mar. 3, 2004).[8] In other words, it makes little difference to water quality in the Chesapeake Bay if the pollutant loads are substantially higher in some days, weeks, or even months, so long as the total loading for the year stays within the total established by the TMDL.

For pollutants like bacteria and nutrients, there is an unavoidable challenge in the task of developing TMDLs for water quality standards that are expressed as monthly, seasonal, or annual totals or averages/means. Prior to 2006, TMDLs for these types of pollutants were often developed to include *only* monthly, seasonal, or yearly averages. However, the District of Columbia Circuit held in *Friends of the Earth v. EPA* that every TMDL must include an expression of a *daily* load. 446 F.3d 140, 142 (D.C. Cir. 2006).

[8] *Available at* https://www3.epa.gov/npdes/pubs/memo_chesapeakebay.pdf.

The D.C. Circuit's decision prompted EPA to reevaluate how it would develop TMDLs and review state TMDLs for water quality criteria expressed on a timeframe other than daily. EPA responded pragmatically by recommending that TMDL loadings continue to be developed using the timeframe that is most appropriate to implement the water quality criteria at issue (i.e., monthly, seasonally, or annually). EPA, Options for Expressing Daily Loads in TMDLs at 7 (June 22, 2007) (draft) ("2007 TMDL Guidance").[9] To ensure that these non-daily TMDLs comply with the *Friends of the Earth* decision, EPA recommended that every TMDL developed on the basis of these long-term loads should *also* include a daily load expression. However, this daily load need only be expressed as an "alternative or supplemental" to the operative non-daily monthly, seasonal, or annual loading on which the TMDL is based. *Id*. at 6.

EPA's guidance does not prescribe any particular methodology for translating long-term loads into daily load expressions. It lays out only general recommendations. 2007 TMDL Guidance at 23. The daily load should be derived in a way that "represents the longer-term TMDL allocations" and is useful for gauging progress toward the longer-term allocations. *Id*. at 9. EPA explains in its guidance that maximum daily loads expressed in TMDLs can be exceeded from time to time without jeopardizing the longer-term water quality goals from which the daily loads are derived. *Id*. ("With a daily maximum load representing long-term allocations, there will be some exceedances that will occur while still maintaining the longer-term goals."). To reiterate, notwithstanding that EPA recommends that daily load expressions be included in every new or revised TMDL to comply with *Friends of the Earth*, those daily load expressions are only included as planning tools to gauge progress toward meeting longer-term water quality goals. Water quality management decisions (including NPDES permitting) should continue to be based on the loading

[9] *Available at* https://www.epa.gov/tmdl/options-expressing-daily-loads-tmdls.

duration (e.g., monthly, seasonally, annually) that is appropriate to the water quality criteria and waterbody at issue.

The Riverkeepers' attack the 2014 Bacteria TMDLs, through EPA's approval thereof, because both documents clarify that the daily load expressions are informational and need not be met every day as hard daily pollutant loading ceilings. Pl. Br. 21. However, the District and EPA's characterization of the daily loads in the 2014 Bacteria TMDLs is wholly consistent with achieving the monthly geometric mean bacteria criterion and EPA's 2007 TMDL Guidance.[10] The TMDLs include two different categories of load expressions. The operative expression is an annual loading for various bacteria sources that was developed through a computer simulation to determine the level of annual reductions necessary so that the model would predict no exceedances of applicable geometric mean water quality criterion for any 30-day period. 2014 Bacteria TMDLs 6–7; EPA Decision Rationale 6. The District also calculated maximum daily load expressions to comply with *Friends of the Earth*. 2014 Bacteria TMDLs 7. Those daily loads expressions may be exceeded from time to time without causing an exceedance of the District's 30-day geometric mean bacteria water quality criterion. This represents a prudent approach, consistent with EPA's 2007 TMDL Guidance, for expressing daily loads for bacteria in TMDLs that are designed to facilitate attainment of a water quality criterion expressed as a 30-day geometric mean.

TMDL writers have been following the 2007 TMDL Guidance for a decade. The Riverkeepers offer no authority for why this longstanding and pragmatic approach should be rejected so that all daily loads—even for pollutants that are not managed on a daily basis like

[10] *Amici* have strong reservations about the method used to calculate the daily wasteload allocations for D.C. Water's facility. However, the 2014 Bacteria TMDLS (11), and EPA's Decision Rationale (10), correctly state that there is no assumption that these wasteload allocations should be translated into daily maximum permit limits for D.C. Water or any other permittee in the District.

bacteria, nutrients, and sediment—must be expressed as a "ceiling or upper limit" rather than for informational or supplemental purposes. Furthermore, this is not the Riverkeepers' first attempt to challenge the approach recommended in EPA's 2007 TMDL Guidance. This court rejected a materially similar argument in any earlier case:

> [W]here the criterion in question is expressed through a particular timeframe—such as daily or seasonal averages—then the TMDL must set load levels that ensure daily or seasonal compliance. Plaintiffs' alternative interpretation—which would demand that a TMDL meet a criterion expressed as a monthly average under State law *every single day*—not only unreasonably transforms a monthly average into a daily maximum, but also erodes the discretion explicitly granted to the States by the CWA to determine whether their water quality standards should be expressed as daily, weekly, monthly, seasonal, or annual maximums or averages. By contrast, tying the TMDL's requirements to the period set forth in a State's water quality standard is consistent with the CWA, its implementing regulations, and common sense.

Anacostia Riverkeeper, 798 F. Supp. 2d. at 246 (emphasis in original) (internal citations omitted). The Riverkeepers' reconstituted challenge must be rejected this time as well.

C. Compelling the District to Convert Its Informational Daily Load to a "Ceiling or Upper Limit" Would Have Substantial Adverse Consequences

Compelling the District to convert the informational daily load expressions in the TMDL to regulatory daily caps would have two substantial adverse consequences. First, this action would effectively invalidate the District's decision to express its water quality criterion for bacteria as a 30-day geometric mean rather than as a daily maximum limit. Second, the precedent set by such an order would jeopardize other significant pollution-reduction efforts nationwide that are directed to achieving weekly, monthly, or annual reductions, rather than daily maximum limits. These two consequences strongly support sustaining the prudent approach outlined in EPA's 2007 TMDL Guidance and applied by the District for the 2014 Bacteria TMDLs.

1. Requiring Enforceable Daily Limits in the TMDLs Would Nullify the District's Decision to Promulgate Its Recreational Water Quality Criterion for Bacteria as a 30-Day Geometric Mean

Under the Clean Water Act, states determine how to attain the designated uses of their waters through the process of setting water quality standards, including water quality criteria. *See PUD No. 1 of Jefferson Cnty. v. Wash. Dep't of Ecology*, 511 U.S. 700, 704 (1994). Here, the District elected to forgo unnecessary daily maximum bacteria criteria in favor of adopting EPA's national recommended criterion using a 30-day geometric mean maximum value. The District chose to promulgate a Single Sample Value and to specify that this single-day value is to be used *only* to assess water quality trends—not for the purpose of making management or permitting decisions. D.C. Mun, Reg. tit. 21, § 1104.8 tbl. 1, n.1.

Riverkeepers' argument would effectively rewrite the District's water quality standards to add a new single-day maximum bacteria criterion for recreational waters. The enforceable "ceiling or upper limit" daily loads posited by Riverkeepers presumably would be used for regulatory and permitting decisions. They therefore would function as a de facto daily maximum water quality criteria for bacteria. This argument cannot be reconciled with the District's decision (formally approved by EPA) to utilize a Single Sample Value for daily bacteria levels only to assess water quality trends.

Riverkeepers' argument does not appear to be limited to bacteria. If the daily loads expressed in *all* TMDLs had be enforceable daily caps on pollutant loadings, this would affect many other pollutants that are not typically subject to daily maximum water quality criteria. An adverse decision in this case would cast doubt on thousands of other TMDLs and water quality criteria for pollutants such as nutrients and sediment.

2. Invalidating the 2007 TMDL Guidance's Approach to Expressing Daily Loads Would Undermine Many Pollution Control Programs Nationwide

Riverkeepers' contention that TMDLs must include inflexible daily maximum limits on loadings is not only contrary to the 2007 TMDL Guidance, but it would seriously undermine many important pollution control efforts nationwide. The Chesapeake Bay TMDL mentioned above provides a good example of the 2007 TMDL Guidance in practice.

Like the 2014 Bacteria TMDLs, the Chesapeake Bay TMDL includes an expression of daily loads. EPA, Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus, and Sediment § 9.1 & App'x R (2010).[11] Nevertheless, the entire Chesapeake Bay TMDL implementation strategy is directed toward the goal reducing *annual* nutrient loadings to the Bay.[12] Many years of studies and implementation efforts and billions of dollars of federal and state grant funds, plus local tax and rate revenues, have been invested in meeting these annual goals. A ruling that the daily loads in the Chesapeake Bay TMDL must be treated as a "ceiling or upper limit" would bring planning, design, and installation of ongoing nutrient control projects to a halt. It would also undermine existing public investments in hundreds of wastewater treatment plants which have been permitted, designed, and constructed to meet seasonal or annual loadings, including D.C. Water's Blue Plains Advanced Wastewater Treatment Plant and many dozens more POTWs in the surrounding Chesapeake Bay region. The measures and capital upgrades necessary to meet daily discharge limits would be substantially different (and much more expensive) than those needed to meet annual loading limits.

[11] *Available at* https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document.
[12] To *Amici*'s knowledge, there have been no regulatory or permitting actions throughout the six-state Bay watershed to limit *daily* nutrient discharges to comply with the Bay TMDL's inconsequential daily load allocations.

A ruling that a TMDL's daily loads must be met in all circumstances also would effectively eliminate water quality trading as a TMDL implementation and compliance tool. For the Bay TMDL, many water quality trading programs have been developed in accordance with EPA's Water Quality Trading Policy (Jan. 13, 2003), and trades have been conducted by permittees, on the foundation of annual objectives. *See, e.g.*, Md. Code, Agriculture § 8-901 *et seq.*; 25 Pa. Code § 96.8; Ct. Gen. Stat. § 22a-521; Va. Code § 62.1-44.19:12 *et seq.* By EPA's estimate, water quality trading can reduce overall compliance costs by as much as 82%. Ches. Bay Comm'n, Nutrient Credit Trading for the Chesapeake Bay: An Economic Study 47 (May 2012).[13] Other states, such Connecticut (Long Island Sound Program) and North Carolina (Neuse River and Tar-Pamlico River programs) have similar trading programs around annual average loadings. It is highly unlikely that trading would be feasible on a daily basis in the context of POTW design and operation and, therefore, the economic benefit of these programs to citizens and water quality would be forfeited if daily limits are required.

II. THE DAILY WASTELOAD ALLOCATIONS EXPRESSED IN TMDLS ARE NOT INTENDED TO SERVE AS MAXIMUM DAILY PERMIT LIMITS ON INDIVIDUAL DISCHARGERS

Riverkeepers further attack EPA's approval of the 2014 Bacteria TMDLs because EPA reiterated the District's assumption that the daily wasteload allocations for D.C. Water's Blue Plains facility were not to be construed as setting daily maximum limits on the amount of bacteria that could be discharged from that facility. Pl. Br. 20–21 (quoting EPA0013938 n.6). This argument appears to be based on the assumption that daily wasteload allocations must be implemented as daily maximum effluent limits in NPDES permits. This is incorrect. The CWA regulations require that NPDES permit limits be "consistent with," *not identical to*, applicable

[13] The executive summary is available at http://www.chesapeakebay.net/channel_files/17763/nutrient_trading_executive_summary.pdf.

wasteload allocations. Furthermore, the regulations that dictate how effluent limits are set for POTWs and combined sewer overflows strongly disfavor daily maximum limits—which in many cases would be impracticable, if not impossible, for these facilities to meet. The Riverkeepers' position that daily wasteload allocations must set enforceable daily NPDES permit limits would render these regulations moot.

A. NPDES Permit Limits Must be "Consistent With," Not Identical to, Applicable Wasteload Allocations

Daily maximum effluent limits are only one of many ways in which effluent limits may be expressed in NPDES permit limits. Among other forms, discharge limits are often set as a maximum total mass or average value over the course of a day, week, month, or year. The relevant factors on the form of the effluent limit are the pollutant, water quality standard at issue, and facility type (i.e., POTW or non-POTW). A TMDL is a planning document, nothing more. It makes no sense to disregard these practical considerations to impose daily maximum effluent limits in permits for pollutants not generally managed on a daily basis simply because a TMDL expresses a daily wasteload expression on paper. Thus, it is well-established that an NPDES permit need not include a daily maximum effluent limit for all pollutants addressed in TMDLs.

The CWA's regulations require that NPDES permit limits be "consistent with the assumptions and requirements of any available wasteload allocation for the discharge." 40 C.F.R. § 122.44(d)(1)(vii)(B). This does not mean that a discharger's permit limits for a pollutant subject to a TMDL must be *identical* to the wasteload allocation, however. *In re City of Moscow*, 10 E.A.D. 135, 148 (E.A.B. 2001) ("While the governing regulations require consistency, they do not require that the permit limitations that will finally be adopted in a final NPDES permit be identical to any of the [wasteload allocations] that may be provided in a TMDL."); *see also* 2007 TMDL Guidance at viii. Thus, the fact that a TMDL expresses a *daily wasteload allocation* for a

discharger does not mean that the discharger's NPDES permit must include a matching *daily permit limit*. *See In re City of Homedale Wastewater Treatment Plant*, 2014 EPA App. LEXIS *13–14, *25 (EAB July 8, 2014).

EPA specifically addressed the situation presented in this case in its *Friends of the Earth* guidance. EPA explained that when existing TMDLs that express only non-daily loads are revised to add new supplemental daily wasteload allocations to comply with *Friends of the Earth*—like the District did for the 2014 Bacteria TMDLs—there is no assumption or requirement that NPDES permits should therefore be revised to include corresponding daily permit limits. *See* Memo. from Benjamin H. Grumbles, EPA Assistant Admin., to EPA Reg. Offices 4–5 (Nov. 15, 2006) ("2006 TMDL Memo").[14] To clarify the issue for permit writers, however, EPA's guidance recommends that such TMDLs and their supporting documents clearly explain their assumption that the operative *non-daily* wasteload allocations should continue to be used as the basis for translating TMDLs' wasteload allocations into NPDES permit limits. 2006 TMDL Memo at 3.

The District and EPA followed the 2006 TMDL Memo guidance in this case. The 2014 Bacteria TMDLs were revised primarily to add supplemental daily loads and wasteload allocations to comply with *Friends of the Earth*. EPA clarified in its approval document that the TMDLs assume that the operative longer-term wasteload allocations should continue to be used to make permitting decisions, not the new informational daily loads. The Riverkeepers take issue with this clarification, Pl. Br. 20–21, but it is a straight-forward application of guidance that has been followed for over a decade without being seriously questioned by any reviewing court.

[14] *Available at* https://www.epa.gov/sites/production/files/2015-10/documents/2006_11_21_tmdl_anacostia_memo111506.pdf.

More importantly, the Riverkeepers' argument cannot be squared with 40 C.F.R. § 122.44(d)(1)(vii)(B). This regulation states that effluent limits must be "consistent with the assumptions" of daily wasteload allocations. This text would be a dead letter if daily wasteload allocations were simply copied and pasted into draft NPDES permits, as the Riverkeepers suggest should be done with DC Water's daily wasteload allocations in the 2014 Bacteria TMDLs.

B. POTWs' Permit Limits Must Be Set as Weekly and Monthly Averages Unless Impracticable

Although it is generally presumed that continuous *industrial* dischargers will have maximum daily effluent limits in their NPDES permits, the opposite presumption applies to POTWs, such as Municipal Associations' members' wastewater treatment plants. *See* 40 C.F.R. § 122.44(d). For public dischargers, the CWA regulations provide an important safeguard against the imposition of impracticable daily effluent limits for POTWs:

> For continuous discharges all [NPDES] permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as:
>
> (1) Maximum daily and average monthly discharge limitations for all dischargers *other than publicly owned treatment works*; and
>
> (2) *Average weekly and average monthly discharge limitations for POTWs*.

40 C.F.R. § 122.45(d) (emphasis added).

A permitting authority's decision to impose effluent limits as weekly/monthly averages, as opposed to daily maximums or other forms limits, is to be made in the process of calculating effluent limits for draft NPDES permits. *See id*. §§ 122.43(b)(2), 122.45. If the regulator elects to impose daily maximum effluent limits on a POTW, the record for the permit should reflect that average monthly/weekly limits are impracticable. The POTW operator would then have the opportunity to dispute the impracticability finding with the agency and, if necessary, to challenge the improper permit limits in court.

Riverkeepers seek to circumvent the presumption in 40 C.F.R. § 122.45(d), as well as the draft permit process and the procedural protections it provides for POTWs, by demanding that the 2014 Bacteria TMDLs express enforceable daily maximum bacteria limits for a POTW (i.e., D.C. Water). This amounts to a collateral attack on 40 C.F.R. § 122.45(d) and must be rejected.

C. Permit Limits for Combined Sewer Overflow Discharges Must Be Set in Accordance with a Long Term Control Plan

Municipal Associations' members include numerous entities that operate combined sewer systems, which are legacies from the era when most sewage was discharged without treatment. These sewer systems were constructed to convey both wastewater and stormwater to the nearest waterbody as expeditiously as possible. Today, these combined wastewater and stormwater flows are conveyed to a wastewater treatment plant. However, the volume of water in these systems can increase dramatically in response to large storm events. For most precipitation events, the downstream wastewater treatment plant is typically designed and sized to process dry weather flows plus reasonable additional wet weather flow levels while meeting permit limits. But in major storm events, these systems may become overwhelmed. The result is that a volume of untreated or minimally treated wastewater (highly diluted by stormwater) will discharge from a combined sewer overflow points (e.g., D.C. Water's Outfall #001). Daily maximum limits for most pollutants are impracticable from a compliance standpoint for combined sewer overflows because the influent volume is highly variable, depending on weather and other conditions, and the ability to treat those flows is minimal.

Congress's solution for wet weather combined sewer overflows, 33 U.S.C. § 1342(q), requires Long-Term Control Plans (LTCPs), developed in accordance with EPA's 1994 "CSO Control Policy" to manage discharges from combined sewer overflow points. *Id*. § 1342(q)(1). The objective of an LTCP is for the combined sewer system operator to develop and implement a

plan that "will ultimately result in compliance with the requirements of the CWA,"—primarily the technology- and water quality-based standards under the Act. *See* 75 Fed. Reg, 18688, 18691 (Apr. 19, 1994). The schedule for the plan should be set in accordance with the locality's financial capability, and may extend over multiple permit terms. *See id*. at 18694, 18696.

Municipal Associations' members that operate combined sewer systems, like Defendant-Intervenor DC Water, have invested billions of dollars in accordance with LTCPs, upgrading their sewer systems and wastewater treatment plants to handle wet weather flows. Depending on the pollutant, these upgrades typically have been engineered and designed to achieve average annual performance measures (frequency of overflow, annual average percent capture of wet weather flows, etc.) in accordance with the CSO Control Policy. Shifting to daily permit limits for these POTWs at this late hour would frustrate decades of planning for these public facilities, and impose extraordinary costs toward what likely would be a futile attempt to comply with technologically infeasible upgrade requirements. The imposition of daily permit limits for any pollutant subject to a daily wasteload allocation in a TMDL would force many, if not practically all, affected POTW owners to completely rework their LTCPs. Doing so would jeopardize substantial public investments in implementing LTCPs designed to bring about compliance with effluent limits expressed on a non-daily basis.

CONCLUSION

This case has implications that extend far beyond the immediate parties. The Riverkeepers' complaint seeks to use the 2014 Bacteria TMDLs as a vehicle to have this Court amend the District's water quality criterion for bacteria, as well as predetermine the NPDES effluent limits for dischargers in the District. If the Court were to adopt their arguments, it would undermine decades of pollution control actions across the country. For these reasons, the Municipal

Associations respectfully request that this Court dismiss the Riverkeepers' challenge and sustain EPA's approval of the 2014 Bacteria TMDL.

Respectfully submitted,

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