

404 F.Supp.3d 160

United States District Court, District of Columbia.

ANACOSTIA RIVERKEEPER, INC., et al., Plaintiffs,

v.

Andrew WHEELER, et al., Defendants

District of Columbia Water and Sewer

Authority, Intervenor Defendant

Case No. 16-cv-1651 (CRC)

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Signed August 12, 2019

Synopsis

Background: Interest groups brought action alleging that the Environmental Protection Agency (EPA) violated the Clean Water Act by approving total maximum daily loads (TMDLs) for rivers flowing through District of Columbia. After District of Columbia Water and Sewer Authority intervened, all parties filed motions for summary judgment.

Holdings: The District Court, Christopher R. Cooper, J., held that:

[1] EPA could not calculate wastewater treatment plant's TMDL by using average flow rates;

[2] District could include single sample value in TMDL document but discount it as an applicable standard; and

[3] achievement of the 30-day geometric mean numeric standard for TMDLs did not show that rivers met narrative criteria of District regulations.

Motions granted in part and denied in part.

West Headnotes (17)

[1] **Administrative Law and Procedure** 🔑 Wisdom, judgment, or opinion in general

Arbitrary and capricious review is narrow, precluding a court from substituting its judgment for that of the agency. 5 U.S.C.A. § 706(2)(A).

[2] **Administrative Law and Procedure** 🔑 Review for arbitrary, capricious, unreasonable, or illegal actions in general

On review of an agency decision, the court's role is to determine whether the agency examined the relevant data and articulated a satisfactory explanation for its action including a rational connection between the facts found and the choice made. 5 U.S.C.A. § 706(2)(A).

[3] **Administrative Law and Procedure** 🔑 Sufficiency of theory or grounds provided by agency

Even if an agency did not fully explain its decision, the Court may uphold it if the agency's path may reasonably be discerned. 5 U.S.C.A. § 706(2)(A).

[4] **Administrative Law and Procedure** 🔑 Review limited to administrative record in general

A court's review of an agency decision is limited to the administrative record. 5 U.S.C.A. § 706(2)(A).

[5] **Administrative Law and Procedure** 🔑 Presumptions and Burdens on Review

The party challenging an agency's action bears the burden of proof. 5 U.S.C.A. § 706(2)(A).

[6] **Administrative Law and Procedure** 🔑 Relationship of agency with statute in general

An agency's interpretation of a statute it administers is entitled to deference under *Chevron*.

[7] **Administrative Law and Procedure** 🔑 Deference to Agency in General

In reviewing an agency's interpretation of a statute it administers, a Court must first consider whether the statute directly addresses the precise question at issue; if so, Congress's directive controls, but if the statute is silent or ambiguous regarding the issue, the question for the court is whether the agency's interpretation is based on a permissible construction of the statute in light of its language, structure, and purpose.

[8] **Administrative Law and Procedure** 🔑 Deference to Agency in General

If a statute that an agency is charged with administering is silent or ambiguous on the precise question at issue, the court must defer to any reasonable agency interpretation, which need not be the one deemed most reasonable by the courts.

[9] **Environmental Law** 🔑 Water Quality Standards or Plans

In the ordinary course, States have significant leeway in choosing the timeframes for their water quality standards; when, however, existing pollution controls are insufficient to achieve those standards, the States' discretion diminishes, and they must set a daily limit on pollutants, even if that limit seeks to effectuate a non-daily goal. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(d)(1)(C).

[10] **Environmental Law** 🔑 Daily maximum load and limited segments

Phrase "total maximum daily load" (TMDL) in Clean Water Act represents the greatest amount of a pollutant that can be discharged into a water body on any given day without causing a violation of the water quality standards. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(d)(1)(C).

[11] **Environmental Law** 🔑 Daily maximum load and limited segments

Clean Water Act requires Environmental Protection Agency (EPA) to approve total maximum daily load (TMDL) figures that represent upper limits of pollutants that can enter water bodies on any given day; those figures must be sufficiently low to ensure that, when complied with, the water quality standards are met. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(d)(1)(C).

[12] **Environmental Law** 🔑 Daily maximum load and limited segments

Under the Clean Water Act, first, total maximum daily loads (TMDLs) must be established, and second, they must achieve the water quality standards. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(d)(1)(C).

[13] **Environmental Law** 🔑 Daily maximum load and limited segments

Under Clean Water Act, Environmental Protection Agency (EPA) could not calculate wastewater treatment plant's total maximum daily load (TMDL) by using average flow rates, even if annual and daily loads together achieved 30-day geometric mean and thus provided variable maximum on the total daily E. coli discharge load; figure representing an average of the daily maximum loadings expected to occur was not the same as a daily maximum loading as required by the Act and EPA regulations. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(d)(1)(C).

[14] **Environmental Law** 🔑 Daily maximum load and limited segments

Environmental Protection Agency rationally concluded that District of Columbia sought to exclude single sample value from applicable water standards when submitting total maximum daily load (TMDL) targets required by Clean Water Act; while District's water standards

include two numeric figures to measure whether waters had sufficiently low E. coli levels, both a 30-day geometric mean and a single sample value, only the 30-day figure was applicable to National Pollution Discharge Elimination System (NPDES) permitting, and single sample value was included in footnote only to show trends. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(d)(1)(C); D.C. Mun. Regs. tit. 21, § 1104.8.

[15] Environmental Law 🔑 Daily maximum load and limited segments

Clean Water Act allowed District of Columbia to include single sample value in total maximum daily loads (TMDL) document but discount it as an applicable standard, and thus Environmental Protection Agency (EPA) could approve TMDL which did not achieve that single sample value; District, having exercised its discretion to set a water quality standard measured as a 30-day geometric mean, opted to include single sample value solely for the purpose of assessing trends. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(c); D.C. Mun. Regs. tit. 21, § 1104.8.

[16] Environmental Law 🔑 Daily maximum load and limited segments

District of Columbia's achievement of the 30-day geometric mean numeric standard for total maximum daily load (TMDL), pursuant to Clean Water Act regulations, did not show that rivers were free from substances in amounts or combinations that “cause injury to, are toxic to, or produce adverse physiological or behavioral changes in humans, plants, or animals” or were free of discharges of untreated sewage that would constitute a hazard to river users, as required by District regulations; District's water quality standards only stated that numeric criteria were necessary, not sufficient, to meet designated uses, and any satisfaction of the numeric criterion did not necessarily establish that narrative criteria were satisfied. Federal Water Pollution Control Act § 303, 33 U.S.C.A.

§ 1313(a); 40 C.F.R. § 130.7(c); D.C. Mun. Regs. tit. 21, §§ 1104.1(d), 1104.3, 1104.8.

[17] Environmental Law 🔑 Daily maximum load and limited segments

Court would vacate total maximum daily loads (TMDLs) which did not comply with Environmental Protection Agency (EPA) regulations pursuant to the Clean Water Act, but stay the vacatur for one year to allow District of Columbia to develop new TMDLs or EPA to revisit its regulations, as improper maximums were better than no maximums. Federal Water Pollution Control Act § 303, 33 U.S.C.A. § 1313(d)(1)(C); 40 C.F.R. § 130.2.

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MEMORANDUM OPINION

CHRISTOPHER R. COOPER, United States District Judge

The Clean Water Act (“CWA” or “Act”) and its implementing regulations create an intricate process in which States and the Environmental Protection Agency (“EPA”) share responsibility for monitoring and limiting pollution in the nation's navigable waters. As one part of that process, States must establish water quality standards for bodies of water within their borders. If a particular water body falls short of those standards, States must develop what are known as total maximum daily loads (“TMDLs”). TMDLs indicate the maximum daily amount of a pollutant that may permissibly enter the water body without violating the relevant quality standards. EPA must approve or reject TMDLs established by States.

The portions of the Anacostia and Potomac Rivers flowing through the District of Columbia are sufficiently contaminated to require the District to establish TMDLs for

E. coli bacteria in the rivers. It did so in 2014, and EPA approved the TMDLs that same year before issuing a revised approval in 2017. Plaintiffs, organizations whose members use the rivers for recreational activity, allege that EPA violated the CWA when it approved these TMDLs.¹ Specifically, they contend that EPA failed to approve absolute maximum levels of *E. coli* discharge into the District's waters on any given day; improperly ignored certain water quality standards that the discharge levels must address; and erroneously concluded that the District's TMDL development process had undergone sufficient public participation. They move for summary judgment, asking the Court to vacate the TMDLs. EPA and the D.C. Water and Sewer Authority, a regulated party that has intervened as a Defendant, cross-move for summary judgment, insisting that *164 EPA's approval of the TMDLs complied with the law.

The Court sides largely with Plaintiffs. EPA violated the plain text of the CWA when it approved “total maximum daily loads” that did not establish daily maximum discharge limits. Further, while EPA properly concluded that the TMDLs need not achieve one of the water quality standards at issue here, its reasoning regarding the others is flawed. Consequently, the Court will grant in part and deny in part each party's motion for summary judgment and vacate the TMDLs, staying the vacatur to allow for the development of new ones. Because the Court will vacate the TMDLs on substantive grounds, it need not decide Plaintiffs' challenge to the sufficiency of the public participation process.

I. Background

A. Clean Water Act

The Clean Water Act is a “complex statutory and regulatory scheme ... that implicates both federal and state administrative responsibilities.” [PUD No. 1 of Jefferson Cty. v. Wash. Dep't of Ecology](#), 511 U.S. 700, 704, 114 S.Ct. 1900, 128 L.Ed.2d 716 (1994). Congress enacted the law to “restore and maintain the chemical, physical, and biological integrity of the Nation's waters.” 33 U.S.C. § 1251(a). Congress structured the Act to reflect principles of cooperative federalism, explicitly “recogniz[ing], preserv[ing], and protect[ing] the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, [and] to plan the development and use (including restoration, preservation, and enhancement) of ... water resources.” [Id.](#) § 1251(b). To this end, Congress vested substantial authority in the States while giving EPA

an oversight role. [See Defs. of Wildlife v. EPA](#), 415 F.3d 1121, 1124 (10th Cir. 2005). The Act requires each State to develop water quality standards for any interstate water body in its boundaries, and to submit these standards to EPA for review and approval. [Id.](#); [see](#) 33 U.S.C. § 1313(a). EPA regulations specify what the State's submissions must contain. [See](#) 40 C.F.R. § 131.6. The “two primary components” of water quality standards are designated uses and water quality criteria. [Am. Paper Inst., Inc. v. EPA](#), 996 F.2d 346, 349 (D.C. Cir. 1993); [see also Anacostia Riverkeeper, Inc. v. Jackson \(“Jackson II”\)](#), 798 F. Supp. 2d 210, 215 (D.D.C. 2011).

A designated use, as the name suggests, reflects “the manner in which each of [a State's] covered waters are to be utilized by governments, persons, animals and plants.” [Jackson II](#), 798 F. Supp. 2d at 215; [see also](#) 40 C.F.R. § 131.10(a). For example, a State might designate a water body for recreational use or agricultural use. Water quality criteria, meanwhile, “are measures of the conditions of a water body.” [Jackson II](#), 798 F. Supp. 2d at 215. They “come in two varieties: specific numeric limitations on the concentration of a specific pollutant in the water ... or more general narrative statements applicable to a wide set of pollutants.” [Am. Paper](#), 996 F. 2d at 349; [see also](#) 40 C.F.R. § 131.3(b).

To enforce pollutant limitations, the CWA created the National Pollution Discharge Elimination System (“NPDES”). The NPDES requires State and local wastewater authorities (as well as other entities that release pollutants) to obtain permits for pollutant discharges from a “point source”—which is a “discernible, confined, and discrete conveyance” such as a pipe or a drain. 33 U.S.C. § 1362(14). NPDES permits must include “pollutant release limitations necessary for the waterway receiving the pollutant to meet ‘water quality standards’ ” established by the State. [Am. Paper](#), 996 F.2d at 349. Because *165 “non-point sources”—such as natural erosion, agricultural runoff, or overflows from urban areas—create additional discharges into the water, permitting of point sources alone does not ensure that pollution levels satisfy water quality standards.

Because “EPA lacks the authority to control non-point source discharges through a permitting process,” [Defs. of Wildlife](#), 415 F.3d at 1124, the CWA requires States to monitor their water bodies and identify when extant pollution limitations “are not stringent enough to implement any [applicable] water quality standard[.]” 33 U.S.C. § 1313(d)(1)(A). States must submit biennially to EPA so-called “303(d) lists,” which indicate which of their water bodies do not, and based on

existing pollution limitations are not expected to, attain the applicable water standards. 40 C.F.R. § 130.7(d). Once a State includes a water body on the 303(d) list, it has a statutory obligation to develop total maximum daily loads. 33 U.S.C. § 1313(d)(1)(C). TMDLs “specify the absolute amount of particular pollutants the entire water body can take on while still satisfying all water quality standards.” *Jackson II*, 798 F. Supp. 2d at 216 (citing 33 U.S.C. § 1313(d)(1)(c)).

“TMDLs are central to the Clean Water Act’s water-quality scheme” insofar as they “tie together point-source and nonpoint-source pollution issues ... [to] address[] the whole health of the water.” *Sierra Club v. Meiburg*, 296 F.3d 1021, 1025 (11th Cir. 2002). A TMDL’s overall cap is the sum of allotted pollutant limitations to various sources: “wasteload allocations” for point sources and “load allocations” for non-point sources. 40 C.F.R. §§ 130.2(g)–(h). In short, the TMDL process requires States to account for the background pollution caused by non-point sources and budget to each point source a daily discharge limit that will ensure compliance with the underlying water quality standards.

The Act requires States to engage in a “continuing planning process” to improve water body conditions, including by implementing TMDLs, 33 U.S.C. § 1313(e)(3)(C), and to consider TMDLs as part of water quality management plans to improve water conditions, 40 C.F.R. § 130.6(c)(1). But TMDLs themselves have no self-executing regulatory force. Rather, they are informational tools used by State and federal authorities to plan a coordinated effort to attain water quality standards. See *Jackson II*, 798 F. Supp. 2d at 216. NPDES permits must be “consistent with the assumptions and requirements of any available wasteload allocation” in a TMDL. 40 C.F.R. § 122.44(d)(1)(vii)(B).

B. The District’s Water Quality Standards

The District of Columbia’s water quality standards classify all of its surface waters as “Class A” waters. Class A refers to the “primary contact recreation” designated use, which means “water contact sports or activities that result in frequent whole body immersion or involve significant risks of ingestion of the water.” D.C. Mun. Reg. (“D.C.M.R.”) 21 §§ 1101, 1199. As relevant here, this designated use includes two narrative and two numeric criteria. The first narrative criterion provides that “[t]he surface waters of the District shall be free from substances in amounts or combinations that ... [c]ause injury to, are toxic to, or produce adverse physiological or

behavioral changes in humans[.]” *Id.* § 1104.1(d). The second narrative criterion requires that “Class A waters ... be free of discharges of untreated sewage ... that would constitute a hazard to the users of Class A waters.” *Id.* § 1104.3. In plain English: The District’s waters should not endanger those who engage in activities that involve entering the water or that *166 create a high likelihood of swallowing the water.

The two other relevant criteria set numeric standards—a “geometric mean” and a “single sample value”—for *E. coli* concentration in the District’s waters. The first criterion is a maximum 126 MPN/100 mL geometric mean of five water samples taken over a 30-day period. *Id.* § 1104.8 tbl.1. “MPN/100 mL” refers to a statistical estimate of the “most probable number” of bacteria colonies in a 100-milliliter sample. *Id.* § 1199.1. A geometric mean is the *n*th root of the product of *n* numbers; in this case, the fifth root of the product of the five samples. In practice, this criterion calls for measuring the amount of *E. coli* in 100 mL of water five times over a 30-day period, multiplying those five results by one another, and taking the fifth root of that product. The result should not exceed 126 MPN/100 mL. The criterion can be articulated as the following equation, where the five samples are “A,” “B,” “C,” “D,” and “E,” expressed in MPN/100 mL:

$$126 \text{ MPN/100 mL} \geq \sqrt[5]{(A \times B \times C \times D \times E)}$$

The second numeric criterion in the District’s water quality standards for *E. coli* is a “single sample value” of a maximum 410 MPN/100 mL—that is, no single 100-milliliter sample of water should have a most probable number of *E. coli* colonies exceeding 410. *Id.* § 1104.8 tbl.1. Central to one aspect of this case, however, is a footnote in the standards that purports to limit the use of this criterion. The footnote states: “The geometric mean criterion shall be used for assessing water quality trends and for permitting,” while “[t]he single sample value criterion shall be used for assessing water quality trends only.” *Id.* § 1104.8 tbl. 1 n.1. More on this later.

C. The TMDL Development Process

In 2004, the District for the first time developed TMDLs for fecal bacteria. Those TMDLs established both average annual loads and maximum monthly loads for fecal bacteria that achieved the District’s 30-day geometric mean water quality standard. Consistent with EPA practice at the time, it approved these TMDLs even though the loads did not express the TMDLs in daily terms. See generally EPA0010921–48.

In 2006, the D.C. Circuit struck down EPA's approval of a separate set of TMDLs because the District had expressed those TMDLs in annual or seasonal, rather than daily, terms. The Circuit concluded that this approach violated the CWA's directive to set total maximum *daily* loads and thus EPA's approval contravened the plain text of the law. See [Friends of the Earth v. EPA](#), 446 F.3d 140 (D.C. Cir. 2006). In the aftermath of that decision, Judge Bates vacated several EPA-approved TMDLs for the District's water bodies that were not expressed in daily terms, including those for fecal bacteria. But he stayed the vacatur to allow the District to establish TMDLs that expressed maximum pollutant discharge in daily terms to conform to the CWA and the Circuit's [Friends of the Earth](#) decision. See [Anacostia Riverkeeper, Inc. v. Jackson \("Jackson I"\)](#), 713 F. Supp. 2d 50 (D.D.C. 2010).

Following [Friends of the Earth](#) and the subsequent vacatur of many of its TMDLs, the District began to revise its TMDLs for fecal bacteria. These TMDLs underwent several iterations, each of which reflected different approaches to pollutant outflows from the Blue Plains Advanced Wastewater Treatment Plant, the world's largest advanced wastewater-treatment facility. See generally EPA0008759–72; *167 EPA0009844–57. Blue Plains discharges treated sewage into the Potomac River and is managed by D.C. Water. EPA0008904. The first two drafts of the TMDL document were noticed for a public comment period, during which Plaintiffs and Intervenor Defendant submitted lengthy comments. See EPA0008774–87; EPA0009810–22; EPA0008780–81; EPA0009859–83; EPA0011802–26. A third iteration was adopted without public comment.

1. The 2014 TMDLs

In December 2014, the District submitted its final TMDL document for EPA approval. The document expressed the TMDLs through two sets of figures. First, it included annual load limits based on the previous fecal bacteria TMDLs.² EPA0011831–46. Second, in an attempt to comply with [Friends of the Earth](#), the document included daily load expressions. EPA0011836–39. These daily figures take two forms. First, for every source other than the point sources at Blue Plains, there is a “Max daily” figure and an “Avg daily” figure. EPA0011839. Blue Plains, in turn, was divided into two point sources: Outfall 001 and Outfall 002. *Id.* For each, the TMDLs include one “Max daily” figure for wet weather conditions and one “Max daily” figure for dry

weather conditions, reflecting that the two Outfalls operate differently depending on weather conditions. *Id.* The TMDL document indicates that the figures were calculated to attain the 30-day geometric mean criterion water quality standard. EPA0011832–33; EPA0011836–39.

The TMDL document states that “[t]he approach used to calculate daily loads in this TMDL identifies a representative maximum daily or average daily load for the annual TMDL for each source identified in the original” TMDLs. EPA0011839. It further explains that the Max daily figure for each source “could not be reached every day and still achieve the underlying water quality standards.” *Id.* Rather, the “Max daily” figure “represents a value which when exceeded indicates [a] likelihood that water quality criteria will not be attained.” *Id.* It depicts the figures as “illustrating the variability in loading that can occur under a TMDL,” but makes clear that the annual average load figures also had to be met to comply with the TMDL document. *Id.*

2. EPA Approval

EPA approved the District's TMDLs and issued a decision rationale in December 2014. See EPA0011877–90. The rationale concluded that the TMDLs achieved all of the applicable water quality standards. EPA0011882–86. With regard to the numerical criteria, EPA relied on the aforementioned footnote in the District's water quality standards to conclude that the TMDLs need not achieve the single sample value. EPA0011883. Therefore, because the figures achieved the 30-day geometric mean, the numeric criteria were *168 satisfied. *Id.* As for the two narrative criteria, EPA explained that “[w]here there is an existing numeric criterion applicable to a particular pollutant, it is reasonable to use that criterion as the quantitative implementation of the narrative standard and designated uses.” EPA0011886. In other words, EPA concluded that attainment of the geometric mean criterion sufficed to satisfy the two narrative standards and the designated use.

EPA's rationale treated the “Max daily” figures akin to how they were presented in the District's TMDL document. It explained that “[t]he approach used to calculate daily loads in these revised TMDLs identifies a representative maximum daily or average daily load for the annual TMDL for each source represented in the original report.” EPA0011888. It noted as “an assumption and requirement of the 2014 TMDL Revisions that both the annual and daily loads must be

achieved in order to ensure that the applicable water quality standards will be met.” EPA0011882. Similarly, it indicated that “all bacteria loads discharged to the Potomac and its tributaries must be consistent with all of the stated loading limits in the TMDL—annual average, daily average, and maximum daily.” EPA0011888.

Finally, EPA described the public review and comment process, concluding “that there has been adequate opportunity for public participation in the development of the 2014 TMDL Revision.” EPA0011889–90.

3. D.C. Water Suit and Revised Rationale

In 2015, D.C. Water filed a lawsuit challenging EPA's approval of the District's revised TMDLs, which was assigned to Judge Bates. D.C. Water alleged that the approved TMDLs set the allocations for the Blue Plains Outfalls too low. They did so, D.C. Water argued, because the loads were derived from calculations that misinterpreted certain data. One such calculation set Outfall 002's allocation based on its average design flow rate rather than its permitted maximum flow rate. Put simply, the more water flowing through Blue Plains, the more bacteria discharged into the Potomac. Thus, by using the average rather than maximum rate, the calculation yielded a maximum load that was less than what could be discharged without exceeding water quality standards. As a result, D.C. Water contended, the daily expressions in the TMDLs were more stringent than what was necessary to implement the water quality standards and jeopardized D.C. Water's NPDES permit. See generally Compl., D.C. Water v. EPA, No. 15-2044 (D.D.C.).

In response, EPA withdrew its initial decision rationale and issued a revised version, EPA0013928–40, prompting D.C. Water to dismiss its suit. Without explicitly admitting error, EPA acknowledged in a letter accompanying the revised rationale that it “ha[d] identified some ambiguities in [its] December 2014 decision rationale that would benefit from clarification.” EPA0013928.

The subsequent 2017 rationale did not alter EPA's position that the TMDLs achieved all necessary water quality standards, EPA0013932–35, or its view that there had been sufficient public participation in the approval process, EPA0013940. It did, however, include several changes that are key to this case. First, with regard to Blue Plains Outfall 002's dry weather “Max daily” load, the rationale

acknowledged that the figure was calculated based on the average flow rate of the Outfall on dry weather days, rather than its maximum permitted flow rate. EPA0013938. Consequently, EPA explained that the “Max daily” load “is not intended—despite its label—to function as *169 a ceiling or limit applicable to discharges.... [b]ut represents an average of the daily maximum loadings expected to occur ... and still achieve the applicable water quality standard.” Id. Put another way, the figure did not represent the amount of pollutant that would enter the water on the highest-flow (and most pollutant-heavy) day, but the average amount that would enter the water on a given day.

More generally, the revised rationale treats the daily load expressions differently than the previous rationale. It indicates that the daily expressions do not represent “‘never-to-be-exceeded-on-a-daily-basis’ targets or values.” EPA0013939. Rather, they “express on a ‘daily’ basis the modeled loads of *E. coli* predicted to meet” the 30-day geometric mean. Id. Similarly, it explains that permitting decisions should be based on allocations “as properly understood in light of the [30-day geometric mean] ... rather than on the assumption that the TMDLs' [allocations] set a maximum or ceiling on *E. coli* loads during any given 24-hour period.” Id.

The new rationale also treats Blue Plains differently than other sources. In describing other sources, the rationale points out that there are two daily expressions—a maximum and an average—with the maximum “reflect[ing] the highest predicted daily load” based on a simulation period. Id. For Blue Plains, meanwhile, the rationale explains that “there are separate daily load expressions for wet weather and dry weather conditions calculated using conditions described in [the existing NPDES permit],” which is “based upon the prediction that discharges from Outfalls 001 and 002 will not preclude attainment” of the water quality standard. Id.

Upon dismissal of D.C. Water's case, Plaintiffs amended their complaint in this case—which had been filed in the meantime—to reflect changes in EPA's decision rationale. Their Amended Complaint alleges that EPA violated the CWA by (1) approving TMDLs that fail to establish true maximum loads and that fail to achieve all applicable water quality standards, and (2) improperly concluding that the District's TMDL development process allowed for sufficient public participation. D.C. Water intervened as Defendants. Additionally, the Wet Weather Partnership and National Association of Clean Water Agencies filed a brief as *amici*

curiae to present the perspective of local governments and waste water agencies from across the country. Each party to the case moved for summary judgment, and the Court held a hearing on their motions.

II. Standard of Review

[1] [2] [3] [4] [5] EPA's approval of the TMDLs subject to review under the Administrative Procedure Act, which provides that a reviewing court shall "hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law[.]" 5 U.S.C. § 706(2)(A). Arbitrary and capricious review is "narrow," [Citizens to Preserve Overton Park, Inc. v. Volpe](#), 401 U.S. 402, 416, 91 S.Ct. 814, 28 L.Ed.2d 136 (1971), precluding the Court from "substitut[ing] its judgment for that of the agency," [Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.](#), 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983). The Court's role is to determine whether the agency "examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Id.* (internal quotation marks omitted). Even if the agency did not fully explain its decision, the Court may uphold it "if the agency's path may reasonably be discerned." *170 [Bowman Transp., Inc. v. Arkansas-Best Freight Sys., Inc.](#), 419 U.S. 281, 286, 95 S.Ct. 438, 42 L.Ed.2d 447 (1974). The Court's review is limited to the administrative record, [Holy Land Found. for Relief & Dev. v. Ashcroft](#), 333 F.3d 156, 160 (D.C. Cir. 2003), and the party challenging an agency's action bears the burden of proof, [City of Olmsted Falls v. FAA](#), 292 F.3d 261, 271 (D.C. Cir. 2002).

[6] [7] [8] An agency's interpretation of a statute it administers is entitled to deference under [Chevron, U.S.A., Inc. v. NRDC](#), 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984). In reviewing that interpretation, a Court must first consider whether the statute directly addresses the "precise question at issue." *Id.* at 842–43, 104 S.Ct. 2778. If so, Congress's directive controls. *Id.* If the statute is silent or ambiguous regarding the issue, "the question for the court is whether the agency's interpretation is based on a permissible construction of the statute in light of its language, structure, and purpose." [Nat'l Treasury Emps. Union v. Fed. Labor Relations Auth.](#), 754 F.3d 1031, 1042 (D.C. Cir. 2014) (quoting [AFL-CIO v. Chao](#), 409 F.3d 377, 384 (D.C. Cir. 2005)). The court must defer to any reasonable agency interpretation, [Loving v. IRS](#), 742 F.3d 1013, 1016 (D.C. Cir. 2014), which need not be the one "deemed most reasonable

by the courts[.]" [Entergy Corp. v. Riverkeeper, Inc.](#), 556 U.S. 208, 218, 129 S.Ct. 1498, 173 L.Ed.2d 369 (2009).

III. Analysis

Plaintiffs levy three substantive challenges and one procedural challenge to the EPA-approved TMDLs. Substantively, they contend first that the TMDLs fail to set true maximum daily loads as the CWA requires. Second, they assert that the TMDLs improperly fail to account for the single sample value criterion. Third, they argue that the TMDLs fail to achieve the District's narrative criteria designed to protect human health. On the procedural front, Plaintiffs contend that EPA unreasonably concluded that the District's TMDL-establishment process involved adequate public participation. The Court takes these challenges in turn.³

A. Substance of the TMDLs

1. Whether the TMDLs Appropriately Set Daily Maximums

Plaintiffs challenge EPA's approval of the TMDLs as contrary to the CWA's directive that States establish "total maximum daily loads." See Pls.' Mot. Summ. J. at 19–20. Specifically, they contend that the approved TMDLs fail to set actual maximums for the allocations to each source and, consequently, the overall total load. In approving the TMDLs, EPA indicated that it did "not understand the [daily] expressions to be 'never-to-be-exceeded-on-a-daily-basis' targets or values." EPA0013939. Likewise, it discounted "the assumption that the TMDLs' [allocations] set a maximum or ceiling on *E. coli* loads during any given 24-hour period." *Id.* This, Plaintiffs insist, is fatal to the approval.

*171 The Court does not write on a blank slate in interpreting the CWA's statutory command that "[e]ach State shall establish for [impaired] waters ... the total maximum daily load." 33 U.S.C. § 1313(d)(1)(C). Its assessment is guided by the D.C. Circuit's decision in [Friends of the Earth](#), which considered the meaning of the word "daily" in the phrase "total maximum daily load." There, EPA had approved TMDLs that set limits on annual and seasonal discharges of pollutants into the District's water bodies and contended that the Act permitted such non-daily expressions. The Circuit squarely rejected EPA's position:

Nothing in th[e statutory] language even hints at the possibility that EPA can approve total maximum “seasonal” or “annual” loads. The law says “daily.” We see nothing ambiguous about this command. “Daily” connotes “every day.” See Webster’s Third New International Dictionary 570 (1993) (defining “daily” to mean “occurring or being made, done, or acted upon every day”).

[Friends of the Earth](#), 446 F.3d at 144.

The Circuit so held despite protestations from EPA that the statute should be read in light of the purpose of TMDLs—to help achieve water quality standards, many of which are not expressed in daily terms—and technical arguments regarding the nature of the pollutants at issue. See id. at 144–45. The court thus rebuffed arguments that the term “daily” left Congress’s intentions ambiguous or that the term was malleable in light of TMDLs’ purpose in the statutory scheme.

[Friends of the Earth](#) informed Judge Bates’s subsequent analysis of the words “maximum” and “load” in “total maximum daily load” in [Natural Resources Defense Council, Inc. v. EPA](#) (“NRDC”), 301 F. Supp. 3d 133 (D.D.C. 2018). He viewed the Circuit’s treatment of the word “daily” as “controlling” and indicated that the other words in the term “total maximum daily load” are likewise unambiguous. Id. at 141.

This authority leads the Court to the same conclusion here. [Friends of the Earth](#) leaves little doubt, at least in this Circuit, about how to approach the term “total maximum daily load” in the CWA. Each word has its ordinary, unambiguous meaning. “Maximum” means “[t]he highest or greatest amount, quality, value, or degree[.]” Maximum, Black’s Law Dictionary (6th ed. 1990), or “an upper limit allowed by law or other authority” or “the greatest quantity or value attainable in a given case,” Maximum, Webster’s Third New International Dictionary 1396 (2002); accord [NRDC](#), 301 F. Supp. 3d at 141. The D.C. Circuit, in other contexts, has viewed the term unambiguously. See, e.g., [Gulf Power v. FCC](#), 669 F.3d 320, 322 (D.C. Cir. 2012) (A “maximum rate [is] the ceiling for what the utility may charge (as the word maximum implies).”). There is no reason why a similarly ordinary meaning does not apply in this context. “Load” is similarly unambiguous, representing “the quantity that can be ... carried at one time by an often specified means of conveyance” or “a measured quantity of a commodity fixed for each type of carrier[.]” Load, Webster’s Third New

International Dictionary 1325 (2002); accord [NRDC](#), 301 F. Supp. 3d at 141.

D.C. Water and to a lesser extent EPA nevertheless insist that, whatever the plain meaning of each word in isolation, the phrase “total maximum daily load” is ambiguous. See D.C. Water Mot. Summ. J. at 19–22; EPA Mot. Summ. J. at 18 n.13. The Court disagrees. [Friends of the Earth](#) again charts the course. There, the D.C. Circuit expressly declined to follow the Second Circuit’s reasoning that the highly technical nature of TMDLs suggested that “daily” was in any way ambiguous and instead gave the term its ordinary meaning. *172 446 F.3d at 146. And, as discussed, each of the other words in the phrase has an ordinary and common meaning. There is no basis for concluding that stringing them together creates an ambiguity that warrants departure from the Circuit’s reasoning. See [NRDC](#), 301 F. Supp. 3d at 142–43 (concluding that [Friends of the Earth](#) foreclosed EPA reliance on out-of-circuit precedents “to argue that while the individual words in the phrase ‘total maximum daily load’ may be unambiguous, the phrase as a whole is susceptible to a broader range of meanings,” especially “when read in light of ... practical difficulties.” (internal quotation marks and citations omitted)).

But, D.C. Water insists, there must be ambiguity in how to promulgate a daily load where, as here, the load’s purpose is to achieve a *non-daily* water quality standard. See D.C. Water Mot. Summ. J. at 21–22. Not so. As Judge Lamberth has observed,

there is nothing incongruous about establishing daily pollutant load limits to meet water quality criteria expressed as another timeframe—such as a seasonal average—because the two issues involve different acts: the former involves setting a maximum amount of contaminant that may enter a water body on a given day, while the latter specifies the timeframe over which a particular measurement must be met.

[Jackson II](#), 798 F. Supp. 2d at 245. Nothing about a 30-day average precludes the setting of a daily maximum. As a purely mathematical matter, there must be a daily discharge that, if

exceeded, would cause the concentration of *E. coli* to spike so high that the 30-day mean could not be achieved, even if the other daily discharges were minimal. That is the maximum load. The Court sees no ambiguity there.

[9] Nor does the structure of the CWA create such ambiguity, even where, as here, a State exercises its discretion to set a non-daily standard. See [Friends of the Earth](#), 446 F.3d at 144–45. EPA emphasizes the discretion the CWA affords the States in setting their own standards and insists that setting a daily cap undermines that discretion. See EPA Mot. Summ. J. at 16–18. But the dual requirement of setting a daily maximum to achieve a non-daily standard makes perfect sense in the statutory scheme. True, TMDLs are tools to achieve the water quality standards, which States have discretion to set and which need not be measured in daily terms. But they are also remedial mechanisms. A State must establish them only if its water bodies risk failing to achieve the water quality standards it has set. 33 U.S.C. §§ 1313(d)(1)(A), (C). Congress structured the Act to impose more stringent requirements when this happens. In the ordinary course, States have significant leeway in choosing the timeframes for their water quality standards; when, however, existing pollution controls are insufficient to achieve those standards, the States' discretion diminishes, and they must set a *daily* limit on pollutants, even if that limit seeks to effectuate a *non-daily* goal. See [Friends of the Earth](#), 446 F.3d at 145.

[10] Against the backdrop of [Friends of the Earth](#) and [NRDC](#), then, the Court has little trouble concluding that the phrase “total maximum daily load” is unambiguous. It represents the greatest amount of a pollutant that can be discharged into a water body on any given day without causing a violation of the water quality standards. Accord [NRDC](#), 301 F. Supp. 3d at 141; see also [Jackson II](#), 798 F. Supp. 2d at 216 (“A TMDL sets the quantity of a pollutant that may be introduced into a water body without causing an exceedance of the applicable water *173 quality standard.”); [Jackson I](#), 713 F. Supp. 2d at 51 (TMDLs “define the maximum amount of a pollutant that can enter a segment of water and still permit that water to meet water quality standards.... The pollutant limits must be expressed as ‘daily’ limits.”).

EPA urges the Court to uphold its approval on a different ground. While it suggests in passing that the term “total maximum daily load” is ambiguous in context, see EPA Mot. Summ. J. at 18 n.13, its primary contention is that the District’s TMDLs comply with the statute, see *id.* at

18. Not because the TMDLs set a fixed, known amount of a pollutant that can be discharged into the water on any given day without causing too high an *E. coli* concentration, but because the TMDLs, through a combination of daily and non-daily loads, achieve the 30-day geometric mean, thus creating a *variable* maximum daily load. This requires some unpacking. Recall that the 30-day geometric mean is 126 MPN/100 mL, measured over five samples. That means that the fifth root of the product of the five samples cannot exceed 126 MPN/100 mL. So, EPA contends, by virtue of achieving this water quality standard—through a combination of daily *and* non-daily loading limits—the TMDLs do in fact create a maximum daily load: Where the first four samples are “A,” “B,” “C,” “D,” and the maximum geometric mean is 126 MPN/100 mL, a daily maximum can be calculated by solving for the variable “y”—the fifth sample—in the following equation:

$$126 \text{ MPN/100 mL} \geq \sqrt[5]{(A \times B \times C \times D \times y)}$$

In other words, EPA suggests that, even giving the term “total maximum daily load” its unambiguous meaning, the maximum load need not be expressed in any fixed terms but can vary day to day based on previous days' discharges. *Id.* at 18–19.

That cannot be right. EPA's premise is that, because the 30-day water quality standard is achieved, there is functionally always a maximum. But that was also true of the 2004 TMDLs. They achieved a 30-day geometric mean water quality standard, meaning that they, too, had a variable daily maximum. See, e.g., EPA0010938 (indicating “TMDLs are designed to implement the applicable water quality standards,” including a 30-day geometric mean). And those TMDLs were vacated after [Friends of the Earth](#) because they were expressed in annual, rather than daily, terms. See [Jackson I](#), 713 F. Supp. 2d at 51 (“EPA now concedes that the holding in [Friends of the Earth](#) extends to the pollutant limits that are the subject of Plaintiffs' complaint.” (internal punctuation omitted)). If EPA were correct, those TMDLs could survive [Friends of the Earth](#) because they also contained a maximum daily load that varied based on previous discharges. Many other TMDLs that contain loading limits expressed only in non-daily terms could also presumably be conceptualized as including variable daily maximums through this type of reverse engineering.

As [Friends of the Earth](#) made clear, the CWA demands more than a TMDL that simply achieves the underlying

water quality standards. Rejecting an argument that non-daily TMDLs were permissible if they achieved the water quality standards, the Circuit explained that, “[a]s written, the statute 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.” [Friends of the Earth](#), 446 F.3d at 145. EPA’s contention here would violate that holding, allowing the District to fold the first condition (establishing a *174 daily maximum) into the second (ensuring the daily maximum is sufficiently low to achieve the water quality standard).

A simplified analogy is instructive. Imagine a family seeking to rein in its spending. To that end, it budgets \$500 a month for groceries. But it keeps blowing past that cap, so it ties itself to the mast: it sets a *daily* maximum of \$30 to help achieve the \$500 *monthly* budget. It knows that it will not spend that much each day—nor *can* it and stay within \$500 for the month. But it wants to make sure the occasional steak night doesn’t get out of hand. With its daily maximum, even on its most splurge-happy day, the family will have a daily spending cap and stay on track to spend \$500 for the month. The CWA allows the District to set a monthly pollution budget rather than a daily one. But where, as here, that budget is in jeopardy, the Act requires a daily maximum, too.

Continuing the analogy, consider EPA’s argument. It insists that, because the \$500 monthly budget is always met, the family necessarily has a variable daily maximum. Simply subtract the previous 29 days’ spending from \$500 and see what remains. True enough, but the \$500 budget is not met because of any daily maximum; instead, it is met through adherence to separate *non-daily* caps. EPA’s approach would allow the family to set a *weekly* maximum of \$200 to achieve its \$500 monthly budget, and then used that achievement to say that a variable *daily* maximum always exists—perhaps \$10, perhaps \$30, perhaps \$70. This turns the CWA’s requirement on its head. The Act demands a *daily* maximum that achieves the monthly budget—not a separate assurance of achieving the monthly budget that can then be repurposed as a variable daily maximum. Said another way, the law prescribes both the means (a daily maximum) and the ends (achievement of the water quality standards). The Court must therefore reject EPA’s insistence that achievement of the ends is all that matters because the ends can be reverse engineered to satisfy the means.

In sum, EPA’s interpretation renders the daily expressions in the TMDLs all but superfluous. The statutory scheme

requires water quality standards to be met. When a State fails to meet the standards, it must develop TMDLs, which articulate additional pollution limitations, which permits then must account for. 33 U.S.C. §§ 1313(d)(1)(A), (C). TMDLs are an extra step to wet permits and water quality standards. Under EPA’s interpretation, by contrast, the daily expressions in the TMDLs play no obvious role—they simply reflect the water quality standards. The situation would be no different if these daily expressions in the TMDLs did not exist at all. To be sure, as EPA notes, the achievement of the water quality standards is not pure happenstance. The non-daily expressions in the TMDLs help achieve the water quality standards, which in turn allows for the conceptualization of variable daily maximums. But, after [Friends of the Earth](#), that cannot suffice. The *daily* expressions must represent maximums. The TMDLs here do not meet that bar. In fact, the very same non-daily limitations in the 2004 TMDLs informed those in these TMDLs. EPA0011831–46. The new, daily figures add nothing to the old version.

Faced with [Friends of the Earth](#) and other authority, EPA asks the Court to apply arbitrary and capricious review, rather than conducting a [Chevron](#) analysis. See EPA Mot. Summ. J. at 18. But the doctrinal lens through which the Court views the case does not affect its conclusions. “[W]hether an agency action is manifestly contrary to the statute is important both under [Chevron](#) and under [arbitrary *175 and capricious review].” [Arent v. Shalala](#), 70 F.3d 610, 615 n.6 (D.C. Cir. 1995) (internal quotation marks omitted). Thus, this is an instance where “[Chevron](#) review and arbitrary and capricious review overlap at the margins.” [Id.](#) at 615; see also [Judulang v. Holder](#), 565 U.S. 42, 52 n.7, 132 S.Ct. 476, 181 L.Ed.2d 449 (2011) (noting, in case applying arbitrary and capricious review, that the “analysis would be the same [under [Chevron](#) step two], because under [Chevron](#) step two, [courts] ask whether an agency interpretation is arbitrary or capricious in substance” (internal quotation marks and citation omitted)). Consequently, even if the Court were to apply arbitrary and capricious review rather than [Chevron](#), the result would be the same. The Court would still be compelled to conclude that EPA “has acted arbitrarily or capriciously in discharging its statutory duties,” which “could be phrased as a conclusion that [EPA’s] interpretation of the [CWA] is unreasonable.” [Sociedad Anonima Viña Santa Rita v. U.S. Dep’t of Treasury](#), 193 F. Supp. 2d 6, 16 (D.D.C. 2001).

[11] [12] The bottom line is that EPA’s interpretation does not comply with the statutory mandate. The statute’s unambiguous text requires EPA to approve figures that

represent upper limits of pollutants that can enter water bodies on any given day. Those figures must be sufficiently low to ensure that, when complied with, the water quality standards are met. This is a two-step process. First, the TMDLs must be established; second, they must achieve the water quality standards. It is not a permissible interpretation of the statute to fold the first step into the second and approve TMDLs that do not articulate known maximums.

What does that all mean for these TMDLs? Given the procedural complexity of this case, it bears emphasizing what the case is and is not about. Recall that TMDLs are an informational tool. Their function is to assist stakeholders in planning and monitoring efforts to improve water quality so that water bodies achieve their State-set standards. See [Jackson II](#), 798 F. Supp. 2d at 216. But they do not have regulatory force of their own. Instead, they inform NPDES permits, which are written and implemented through separate processes. Under the statute, “TMDLs must be incorporated into permits allocating effluent discharges among all pollution sources.” [Friends of the Earth](#), 446 F.3d at 143 (citing 33 U.S.C. § 1342(a)(1); *id.* § 1311(b)(1)(C)). EPA regulations require permits to “be consistent with the assumptions and requirements of any available wasteload allocation.” 40 C.F.R. § 122.44(d)(1)(vii)(B). Relying on that regulation, EPA has long taken the position that [Friends of the Earth](#) did not upend NPDES permits that pre-dated it or require permits themselves to include daily pollutant limitations. See EPA, Draft Guidance, [Options for Expressing Daily Loads in TMDLs](#) at viii (June 22, 2007) (“2007 EPA TMDL Guidance”); Memo. from Benjamin H. Grumbles, EPA Assistant Admin., to EPA Reg. Offices, [Establishing TMDL Daily Loads in Light of the Decision by the U.S. Court of Appeals for the D.C. Circuit in Friends of the Earth, Inc. v. EPA, et al. No. 055-015 \(April 25, 2006\) and implications for NPDES Permits](#) at 4–5 (Nov. 15, 2006) (“2006 Grumbles Memo”). Instead, because permits need only be consistent with TMDLs, rather than precise mirrors of them, EPA authorizes permits expressed in non-daily terms. Plaintiffs do not challenge that (at least not explicitly). This case is about the requirement of establishing maximum daily loads, not how those loads translate to permitting.

So where does EPA's revamped decision rationale go off course? It notes that the *176 permits should be “understood in light of the [30-day geometric mean] ... rather than on the assumption that the TMDLs' [allocations] set a maximum or ceiling on *E. coli* loads during any given 24-hour period.” EPA0013939. To the Court's ear, this simply makes the

point that, per EPA regulations, the daily figures need not upend permitting. So far, so good. However, the rationale also explains that the “Max daily” figures do not represent “‘never-to-be-exceeded-on-a-daily-basis’ targets or values.” *Id.* Here is where the problem starts. Whatever effect TMDLs might have on permitting, the statute requires EPA to approve figures that represent maximums—ceilings that *should not* be exceeded. There is a legally significant difference between (1) establishing daily loads that are maximums and clarifying that permitting decisions must be made in light of the water quality standards and (2) establishing daily loads but expressly discounting the notion that they are daily maximums *because* the permits do not necessarily require daily loads. The former complies with the statutory command to establish a maximum daily load and accounts for the EPA regulation—itsself reflecting technical and scientific realities—ensuring that while TMDLs inform permitting, they do not necessarily dictate it. The latter, on the other hand, violates the statutory command because it fails to establish maximum daily loads. And it gets the process backwards. In the statutory scheme, TMDLs inform permits, not the other way around.

The record here is less than crystal clear about what the “Max daily” figures actually represent, partially because of EPA's action on voluntary remand following D.C. Water's lawsuit.⁴ The TMDL document itself indicates that “[t]he approach used to calculate daily loads ... identifies a representative maximum daily ... load for the annual TMDL for each source identified in the original report.” EPA0011839. It further notes that the “max daily load” figure for each source “represents a value which when exceeded indicates [a] likelihood that water quality criteria will not be attained.” *Id.*

The initial EPA decision rationale treated these daily expressions as such: It represented as “an assumption and requirement of the [TMDLs] that both the annual and daily loads must be achieved in order to ensure that the applicable water quality standards will be met.” EPA0011882. It further made clear that “[t]o comply with the assumptions and requirements of this TMDL ... all bacteria loads discharged ... must be consistent with all of the stated loading limits in the TMDL—annual average, daily average, and maximum daily.” EPA00118888–89. To be sure, the TMDL document itself suggests that the TMDLs as written need not alter existing NPDES permits, EPA0011840, and EPA gave no indication that they would. But even if the daily expressions did not alter permits, at the very least they represent daily upper limits as originally presented and approved. In this way, both the TMDL document itself and EPA's initial rationale

reflect the view that the “Max daily” load expressions for each source represent figures that, if exceeded, would jeopardize the water-quality standards—*i.e.* that they *177 were maximums in the common sense of the word.

EPA's revised rationale takes a different tack, largely unexplained by the administrative record. For context, recall that D.C. Water filed suit after the initial decision rationale, which prompted EPA to withdraw that rationale and issue the amended, operative version. D.C. Water alleged in the suit that the TMDLs severely under-allocated maximum daily loads for the Blue Plains sources, in part because they used data from D.C. Water's Long Term Control Plan⁵ that was neither intended to measure the maximum amount of *E. coli* that could be discharged from Blue Plains nor had any relationship with that figure. D.C. Water, as Intervenor Defendant in this case, stands by those allegations.⁶ See D.C. Water Mot. Summ. J. at 13–16.

The record itself acknowledges that the revised decision rationale was meant to “clarify some ambiguities” in EPA's initial approval. EPA0013928. But the revised rationale injected substantial confusion into what some of the figures represent. The new rationale treats Blue Plains differently than the other sources. EPA noted that the other “maximum” allocations reflected the highest predicted daily load based on a three-year simulation period. EPA0013939. But for Blue Plains, it gave no indication that the new figures were predicted or calculated maximums. See *id.* It said simply that the two Outfalls have “separate daily load expressions for wet weather and dry weather conditions” calculated using conditions described in the existing NPDES permits and that those conditions “are based upon the prediction that discharges from Outfalls 001 and 002 will not preclude attainment of the applicable water quality standards.” *Id.* This does not explain what these figures represent. Do they, like the other “maximum” expressions, according to the EPA rationale, reflect the highest predicted load? Are they, as the TMDL document itself indicates and EPA's original rationale suggested, loadings that, if reached, indicate a probability of water quality standards being violated? Or are they simply amounts that could be discharged without exceeding water quality standards but nowhere near the upper limit of discharges that could do so? It appears from the text of the rationale that these are simply amounts that could be discharged without exceeding the standards but not necessarily the *highest* amounts that could do so. See *id.* (explaining that for Blue Plains there are “daily load expressions” that “will not preclude attainment of

the applicable water quality standards.”) Those are not maximums.

EPA's decision rationale does not provide much guidance on its own terms, and it certainly does not explain the deviations from its original rationale. The revised rationale also indicates that decisions about permitting “should be based on the TMDLs' [allocations] as properly understood *178 in light of the applicable [geometric mean] criterion ... rather than on the assumption that the TMDLs' ... set a maximum or ceiling on *E. coli* loads during any given 24-hour period.” *Id.* Of course, this could simply clarify the initial rationale's point that it is a “requirement ... that both the annual and daily loads must be achieved,” EPA0011882, to emphasize that, consistent with EPA guidance, the annual expressions are the operative figures for permitting purposes. But when combined with the ambiguous treatment of the Blue Plains daily expressions and the acknowledgment that calculation for Outfall 002 used incorrect figures, the addition of this language aggravates rather than resolves the ambiguity.

EPA's briefing does little to clear the waters. It asserts that, except for Outfall 002, “the TMDLs do provide ‘max daily’ loads that limit a source's total *E. coli* discharges on any given day.” EPA Mot. Summ. J. at 18. But this statement is at odds with the decision rationale itself, which nowhere indicates that the Blue Plains allocations represent maximum figures. And, as explained, EPA's briefing focuses largely on the erroneous contention that the CWA permits adoption of calculated variable daily maximum loads.

[13] In any event, whatever lack of clarity might plague the other figures, the treatment of Outfall 002 plainly fails to comply with the statute. After D.C. Water's suit, EPA acknowledged that the flow rate used to calculate the ostensible dry weather maximum load for Outfall 002 did not accurately reflect the maximum flow rate of the Outfall. EPA0013938. In other words, in attempting to develop a target upper limit for Outfall 002, the District plugged the wrong figure into the equation. EPA dealt with this error as follows:

EPA understands that the “Maxdaily” WLA identified for Outfall 002 under dry weather conditions ... is not intended—despite its label—to function as a ceiling or limit applicable to discharges from Outfall 002 on any

given dry weather day. Rather, because it was calculated using average flow rates at Blue Plains, it represents an average of the daily maximum loadings expected to occur under dry weather conditions and still achieve the applicable water quality standard.

Id.

That doesn't cut it. A figure “represent[ing] an average of the daily maximum loadings expected to occur” is not the same as a daily maximum loading. Compare Average, Black's Law Dictionary (11th ed. 2019) (“A single value that represents the midpoint of a broad sample of subjects,” or “The ordinary or typical level; the norm”) with Maximum, Black's Law Dictionary (6th ed. 1990) (“The highest or greatest amount, quality, value, or degree.”). EPA does not defend the figure as a maximum, instead contending that “it is irrelevant that one of the loads is based on an average.... [because] the annual and daily loads in the TMDL ... *together* achieve the 30-day geometric mean[, which] ... means that the TMDL necessarily provides a variable maximum on the totally daily *E. coli* discharge load.” EPA Mot. Summ. J. at 20 n.14. EPA thus retreats to the presence of a calculated variable maximum based on attainment of the non-daily loads. As explained, this approach is inconsistent with Friends of the Earth and therefore cannot support the legality of these TMDLs.

Nor do Defendants' remaining arguments for upholding the agency's approval hold water. D.C. Water charges Plaintiffs with attempting to relitigate a previous position that Judge Lamberth rejected in Jackson II. According to D.C. Water, Jackson II suggested that “EPA may set *179 daily loads which themselves can be exceeded on some days as long as the water quality standard is implemented during each 30-day period.” D.C. Water Mot. Summ. J. at 21. This misinterprets Jackson II. There, plaintiffs challenged TMDLs that contained a range of daily loading limits based on rainfall, with the permissible maximums higher on relatively wet days. On particularly wet days, maximum discharge would cause the amount of pollutant in the water to exceed the numerical limit set in the water quality standards. But that numerical limit was not set in daily terms under the State's water quality standards, and Jackson II held that TMDLs need not “set load limits so low as to satisfy applicable water quality standards even in the most extreme weather conditions.” 798 F. Supp. 2d at 246. Jackson II thus stands for the proposition that, when

a State sets a numerical water quality standard measured as a monthly average, the TMDLs need not be low enough to prohibit spikes that exceed that figure on a periodic basis. In this case, that means the TMDLs may permissibly allow a bacterial concentration greater than 126 MPN/100 mL on a given day, so long as over the course of thirty days, other discharges are low enough to ensure the 30-day mean doesn't exceed that figure. But that is not the same as suggesting a daily maximum is unnecessary where the water quality standard is non-daily. Returning to the family grocery budget example: If the family sets a budget of \$20 per day *on average* over the course of a month, it can still spend \$30 one day if it spends \$10 on another. That's all Jackson II said; it did not say that the family need not set a daily maximum at all.

Not incidentally, the approach that Jackson II approved demonstrates an additional flaw in Defendants' emphasis on the fact that the District elected to set a non-daily water quality standard. As explained, this argument falters because Congress legislated more stringent daily limits when water quality standards are at risk. But the possibility of a range of weather-dependent daily limits further shows that there is no irreconcilable tension between giving States discretion to choose non-daily standards and requiring daily maximums as remedial measures. States remain free to set a variable maximum of a different form: one that varies based on weather but is not an unknowable “y” that is simply a repurposed version of the standards themselves. Where TMDLs include a range of maximums tied to weather conditions, the highest of which, if discharged daily, would exceed a monthly average numerical criterion, there is still a known maximum for each day and a clearly established overall upper limit—the maximum at the top of the range, for the highest flow, most discharge-heavy day. Our hypothetical family might elect to set a \$50 daily budget for birthday and anniversary dinners and a \$5 daily budget to round out leftovers night. But there's still a known maximum for each night and a highest possible maximum—the \$50 for special occasions. So, too, here. To the extent that the underlying water quality standard demands variability, the TMDLs can account for that without offending the statutory mandate.

Similarly, the possibility of such a range betrays the flaws in Defendants' emphasis on the CWA's reference to seasonal variations. The Act demands that States establish TMDLs “at a level necessary to implement the applicable water quality standards with seasonal variations.” 33 U.S.C. § 1313(d)(1) (C). This provision, EPA and D.C. Water insist, demonstrates that Congress envisioned variable maximum loads. See EPA

Mot. Summ. J. at 19; D.C. Water Mot. Summ. J. at 20. But, just as known maximum loads can be expressed as a weather-dependent *180 range, so can they vary by season. That is not the same thing as relying on a constantly shifting variable that fluctuates based on previous days' loads. The provision anticipates a TMDL allowing, for example, an extra 1,000 bacterial colonies to be discharged daily during the summer months to account for higher precipitation. But winter, spring, summer, or fall, the TMDL must still set a maximum daily load known to all.

Next, Defendants maintain that a 30-day concentration-based water quality standard, which is a useful measure for *E. coli*, is not well-suited to daily limitations. See D.C. Water Mot. Summ. J. at 25–26; see also EPA Guidance, Office of Water 820-F-12-058, Recreational Water Quality Criteria at 40 (2012) (“EPA Criteria Guidance”). *Amici* echo that point and add that *E. coli*, along with other pollutants, like oxygen-depleting particles, are similarly ill-suited to daily limitations. *Amici* Br. at 7–10. Maybe so, but that does not license the Court to ignore the law. Friends of the Earth rejected identical arguments, explaining that this is a problem of EPA's making. 446 F.3d at 146. In the Act, Congress directed the EPA Administrator to determine which pollutants were suitable to TMDLs. 33 U.S.C. § 1313(d)(1)(C). States need not establish TMDLs for pollutants not on that list. *Id.* Yet, the EPA Administrator promulgated a regulation determining that “[a]ll pollutants ... are suitable for the calculation of total maximum daily loads.” Notice, Total Maximum Daily Loads Under Clean Water Act, 43 Fed. Reg. 60,662, 60,665 (Dec. 28, 1978). To the extent that this determination needs revisiting, that argument must be addressed to the Administrator or Congress. “EPA can change its regulation; [courts] cannot rewrite the Clean Water Act.” Friends of the Earth, 446 F.3d at 146.

D.C. Water also emphasizes the substantial investment—upwards of \$2.7 billion—it says it has made to upgrade Blue Plains and the District's sewer system to comply with the Long Term Control Plan and its permits. See D.C. Water Mot. Summ. J. at 3–5. In a similar vein, *amici* warn that forcing States to establish fixed daily maximums in their TMDLs would upend a decade's worth of TMDL development and investment. See *Amici* Br. at 13–16. The prospect of another substantial change to the TMDL process is no doubt frustrating and potentially costly for regulated entities. Friends of the Earth represented a sea change from when EPA approved TMDLs that were not daily, and this case may ultimately upend certain TMDLs in similar ways. But

just as EPA's failure to comply with the plain text of the statute—which requires a *daily* load—led to Friends of the Earth, it is EPA's failure to approve a *maximum daily* load that leads to the result here. Defeated expectations do not permit this Court to ignore the directive of the D.C. Circuit or the plain meaning of the CWA.

The Court also doubts the parade of horrors that D.C. Water and *amici* say will result from a vacatur of the District's TMDLs. While requiring TMDLs to include maximum daily loads (which the statute does, and this Court merely enforces) might require writing new TMDLs, concerns about the effects on permitting appear overstated. As both D.C. Water and *amici* themselves stress, EPA regulations require NPDES permits merely to be “consistent with the assumptions and requirements of any available wasteload allocation,” in a TMDL. 40 C.F.R. § 122.44(d)(1)(vii)(B) (emphasis added). Thus, requiring EPA to approve maximum daily loads—as the statute demands—is not tantamount to forcing D.C. Water and other regulated entities to revamp their infrastructure to include daily effluent limitations. *181 To the contrary, EPA has taken the position that Friends of the Earth does *not* require changes to permitting, precisely because its regulations do not necessitate permits and TMDLs to be mirror images of one another. See 2007 EPA TMDL Guidance at viii; 2006 Grumbles Memo at 4–5. Again, this case is not about NPDES permits. It is about setting maximum loads for planning purposes to inform, not dictate, permits.⁷ And, of course, the current permits are designed to achieve the water quality standards. Presumably, then, they already comply with the true maximum daily load. Assuming the current permits achieve the water quality standards, if the District establishes and EPA approves the correct figure for Blue Plains, that figure will be sufficiently high for Blue Plains to comply without major infrastructure improvements. Otherwise, it must be true that either (1) the figure identified as the maximum allocation for Blue Plains is set too low or (2) Blue Plains's current pollution controls are insufficient to achieve the water quality standards.

It might seem to exalt form over substance to force EPA to approve maximum daily loads where permits need not necessarily reflect those figures. Recall, however, that the Act treats TMDLs as informational tools. They allow stakeholders—whether regulated sewer authorities, federal or local regulators, environmental groups, or recreational users—to plan and monitor water body anti-pollution efforts. Thus, regardless of whether identifying a daily maximum has

immediate regulatory impact through NPDES permitting, it serves a purpose in the statutory scheme.

Finally, *amici* place great emphasis on EPA guidance issued following [Friends of the Earth](#). See *Amici* Br. at 9–13. Both the TMDLs and EPA's decision rationale in this case invoke that guidance. See EPA0011836; EPA0013939. The guidance advises States to include daily loading expressions in their TMDLs but indicates that these daily expressions can complement the non-daily expressions that most directly inform permitting. See 2007 EPA TMDL Guidance at 1–2. It explains that these daily expressions would be most informative if derived from, or otherwise consistent with, the longer-term allocations to assist monitoring of progress towards those longer-term allocations that formed the basis of permits. *Id.* at 1. Specifically, States could identify in their TMDLs a daily expression in the form of a “target” load to be compared to observed daily loadings for monitoring purposes. *Id.* at viii. In so doing, regulators and other stakeholders could assess progress towards successful implementation of the longer-term allocations. These numbers need not represent true maximums, according to the guidance. To the contrary, the guidance counsels *against* selecting a non-exceedable upper limit: “Instead of selecting the maximum load value as the daily load, it is advisable to select a value that represents a high percentile (e.g., 95th or 99th), *but not the maximum* ... to protect against the presence of anomalous outliers.” *Id.* at 19 (emphasis added). As the guidance explains, too high a figure will “not be very informative” because “[i]f the daily target is based on the maximum allowable load, by the time monitoring *182 data exceed the target, there is likely already a problem.” *Id.* In other words, if the target figure represented a true maximum, it would be so high as to be virtually useless, and regulators would be better off choosing a slightly lower figure to represent an upper limit that should rarely be exceeded. Doing that, the guidance suggests, is the most effective way to ensure that the daily expressions serve a useful informational and planning role.

In many ways, this guidance is perfectly sensible. To the extent that permits are based largely on longer-term assessments, selecting a daily load that best allows regulators to monitor progress towards longer-term goals (and thus achievement of water quality standards) ensures that the daily expressions in TMDLs have informational value, consistent with their role in the overall scheme. But guidance, no matter how sensible, cannot trump the unambiguous language Congress enacted. The Act requires a *maximum* daily load. Targets and maximums are not the same thing, especially

where the target is consciously set as something lower than an upper limit. Compare [Target](#), [Webster's Third New International Dictionary](#) (2002) (“Something that is ... set or proposed for achievement.”) with [Maximum](#), [Webster's Third New International Dictionary](#) (2002) (“An upper limit allowed by law or other authority.”). But nor are they mutually exclusive. To the extent that setting a target daily load helps regulators achieve water quality standards, nothing in the Act precludes that. It simply requires a maximum figure as well. EPA is free to advise States to set target figures, and perhaps require as much for approval. However, faced with Congress's directive, it is not free to opt for target daily loads *in lieu* of maximum ones.

Readers could be forgiven for finding all this all somewhat bizarre. If the maximum load does not have immediate regulatory effect and EPA has put out sensible guidance that ensures that daily figures best assist those efforts that *do* have regulatory effect, what's wrong with that? In this context, forcing the District to articulate a daily maximum may be especially odd because the 30-day geometric mean is designed to tolerate high daily spikes. Why, then, force the District to identify what will presumably be an astronomically high figure as the maximum load, when that load can only be reached in the rarest of circumstances? Why not simply allow the District, pursuant to EPA guidance, to establish a lower figure that articulates an upper target—something of a warning guidepost—that can better allow regulators and other stakeholders to monitor progress? The simple answer is that Congress said so. Again, EPA can fix this problem through a regulatory change, reconsidering which pollutants are suitable to TMDLs. See [Friends of the Earth](#), 446 F.3d at 146. But until then, faithful application of [Friends of the Earth](#) demands this result, at least when it comes to D.C.'s waterways. As our circuit reminded us in that case when declining to join the Second Circuit in holding that requiring daily loads would be “absurd,” [NRDC v. Muszynski](#), 268 F.3d 91, 99 (2d Cir. 2001):

In this circuit ... agencies seeking to demonstrate absurdity have an exceptionally high burden: “for the EPA to avoid a literal interpretation ..., it must show either that, as a matter of historical fact, Congress did not mean what it appears to have said, or that, as a matter of logic and statutory structure, it almost surely could not have meant it.”

[Friends of the Earth](#), 446 F.3d at 146 (second alteration in original) (quoting [Engine Mfrs. Ass'n v. EPA](#), 88 F.3d 1075, 1089 (D.C. Cir. 1996)); see also [W. Minn. Mun. Power Agency v. FERC](#), 806 F.3d 588, 596 (D.C. Cir. 2015)

(explaining absurdity *183 doctrine is a “high threshold” and courts’ role is not to assess whether agency interpretation is “better public policy”). For reasons explained above, EPA has not cleared that high bar. While this outcome might seem more formalistic than practical, it is far from absurd as the D.C. Circuit has interpreted the term when it comes to setting TMDLs.

2. Single Sample Value

Plaintiffs next contend that EPA violated the CWA in approving TMDLs that do not achieve the single sample value in the District’s water quality standards. EPA responds that the TMDLs need not achieve that criterion, because the District excluded it as an “applicable water quality standard” for attainment purposes. The agency’s position raises two questions. First, whether EPA rationally concluded that the District sought to exclude the single-sample criterion for these purposes, and second, whether EPA permissibly interpreted the CWA to allow it to do so.

To recap, the District’s water standards include two numeric figures to measure whether Class A waters have sufficiently low *E. coli* levels. In addition to the 30-day geometric mean discussed above, District regulations include a single sample value of 410 MPN/100 mL—essentially meaning that a 100 mL sample of water should not contain more than 410 bacteria colonies. [D.C.M.R. 21 § 1104.8](#) tbl. 1. A footnote in the regulation distinguishes how the two figures should be used: “The geometric mean criterion shall be used for assessing water quality trends and for permitting[.]” while “[t]he single sample value criterion shall be used for assessing water quality trends only.” [Id.](#) § 1104.8 tbl. 1 n.1. The District understood this footnote to mean that the TMDLs did not have to achieve the single sample value because it was not an applicable standard for attainment purposes, EPA0011831, and TMDLs need only “be established at a level necessary to implement the applicable water quality standards.” [33 U.S.C. § 1313\(d\)\(1\)\(C\)](#). Likewise, EPA approved the TMDLs on that basis. EPA0013933. Plaintiffs insist that EPA’s approval of the TMDLs contravened the CWA because the TMDLs did not account for all applicable water quality standards.

[14] As an initial matter, EPA rationally concluded that the District sought to exclude the single sample value from applicable water standards for TMDL purposes. The District’s intent in including the footnote was clear enough: In drawing the distinction between the geometric mean value (applicable

to permitting) and the single sample value (applicable only to trends and not permitting), it sought to exclude the latter as an applicable water quality standard. If the single sample value were an applicable water quality standard, permits would have to achieve it. [See 33 U.S.C. § 1342\(a\)\(1\); id.](#) § 1311(b)(1)(C). By excluding that criterion from permitting, the District necessarily meant to exclude it as an applicable standard. [See also](#) EPA0011831. And because TMDLs need only achieve applicable standards, EPA rationally understood this standard as inapplicable for TMDL development. Further, the effect of counting the criterion as an applicable standard would be substantial, considering the District’s use of a 30-day geometric mean. The nature of a 30-day geometric mean tolerates outlier figures in the sample data set, allowing for periodic spikes in bacterial concentration, which would be supplanted by a single sample value of 410 MPN/100 mL. Taken together, all of this is a strong indication that the District did not intend for the single sample value to measure attainment of water quality standards. The exclusion of the single sample value from permitting thus implies an attempt to exclude it as an *184 applicable water quality standard that TMDLs must achieve. To be sure, the District’s footnote could have been clearer (by, for example, explicitly discounting the single sample value’s applicability to “attainment status” rather than “permitting”). But clunky regulatory language aside, it is obvious that the footnote sought to do just that. No other reading of the footnote would create a meaningful distinction between “trends” and “permitting.”

The record shows that Plaintiffs repeatedly raised the issue in the comments submitted during the TMDL process and the District repeatedly interpreted its own regulation as precluding the single sample value as an applicable water quality standard for “attainment” purposes—*i.e.*, as inapplicable to the question of whether a water body has attained water quality standards, which TMDLs must address. [See](#) EPA0007315; EPA0007347. Based on this record, and the regulatory footnote, EPA rationally concluded that the District did not seek to include the single sample value as an applicable standard for TMDL purposes. [See](#) EPA0013933.

But while it is apparent that the District viewed the single sample value as inapplicable to the TMDL process, the question remains whether the CWA allows it to do so. Once a State has promulgated water quality standards, § 1313(d)(1)(A) of the CWA requires it to monitor and “identify those waters within its boundaries for which [existing pollution controls] are not stringent enough to implement any water

quality standard applicable to such waters.” 33 U.S.C. § 1313(d)(1)(A). If a water body is so identified, subsection (C) requires the state to establish a TMDL “at a level necessary to implement the applicable water quality standards.” *Id.* § 1313(d)(1)(C).

Subsection 1313(d)(1)(C) requires TMDLs to implement the *applicable* water quality standards once subsection § 1313(d)(1)(A) is triggered. As Judge Lamberth explained in *Jackson II*, subsection C’s “direction to develop TMDLs incorporates a requirement to protect *any* water quality standards that, under state law, are applicable to the water body in question.” 798 F. Supp. 2d at 227. But the word “applicable” in the statute “narrow[s] designated uses and water quality criteria from all possible standards to those specified as applicable to the water body under state law.” *Id.* Here, the relevant State law indicated that the single sample value was not among the applicable standards.

[15] The CWA is silent on whether the relevant State law may include a standard but exclude it as inapplicable to attainment status. As a result, the Court must weigh whether EPA, in approving the TMDLs, reasonably interpreted the Act as permitting the District to include the single sample value in its water quality standards, yet explicitly discount it as an applicable standard. The Court concludes that the interpretation is permissible. In passing the CWA, Congress took great pains “to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, [and] to plan the development and use (including restoration, preservation, and enhancement) of ... water resources.” 33 U.S.C. § 1251(b). To this end, Congress structured the CWA to afford States wide discretion in setting their own water quality standards. *See* 33 U.S.C. § 1313(c).

EPA has similarly recognized the primacy of States’ chosen criteria in the TMDL context. *See Jackson II*, 798 F. Supp. 2d at 246. EPA guidance indicates that “if a water quality criterion requires that a particular pollutant should not exceed a specified level more than ten percent of the time, a TMDL that sets load limits that effectively prevent pollutant levels from *185 exceeding the stated maximum in more than 10% of measurements is sufficient.” *Id.* To be sure, this example is not a perfect parallel. There is a difference between a criterion that contains certain caveats and a criterion that is altogether inapplicable. Nevertheless, the example is instructive in demonstrating a policy of deferring to States’ chosen water quality standards as they are. The Court thus concludes that

permitting a State to articulate a standard but not use it for permitting purposes is consistent with the Act’s general emphasis on State primacy and the specific discretion it gives States to set water quality standards. It is also consistent with parallel EPA practices.

Plaintiffs’ invocation of *NRDC v. EPA*, 777 F.3d 456 (D.C. Cir. 2014), misses the mark. There, the D.C. Circuit held that because the Clean Air Act indicated that certain requirements “shall apply” to “a nonattainment area,” EPA was precluded from excepting an acknowledged nonattainment area from those requirements. *Id.* at 470. There was no dispute that the relevant area was a nonattainment area. *Id.* at 470–71. Here, the plain terms of the Clean Water Act require the State to indicate where existing pollution controls are insufficient to attain “any water quality standard applicable to such waters,” 33 U.S.C. § 1313(d)(1)(A), and to adopt TMDLs to achieve those standards, *id.* § 1313(d)(1)(C). But the key question is whether the Act allows the District to render the single sample something other than a “water quality standard applicable to” its waters for attainment purposes. EPA permissibly concluded that the District has explicitly sought to render a standard inapplicable when promulgating the standards themselves.

Adopting Plaintiffs’ position would encourage the District to provide the public with less information. The District, having exercised its discretion to set a water quality standard measured as a 30-day geometric mean, opted to include *more* information: namely, the single sample value for the purposes of assessing “trends.” This decision aligned with the CWA’s stated purpose of encouraging States to plan how to use and restore their waters while affording them discretion in how to do so. *See* 33 U.S.C. § 1251(b). Plaintiffs’ interpretation of the law would force a State to either undermine its chosen standards simply because it mentioned other standards or, more likely, create a situation in which States exclude from public regulations and documents aspirational figures that form a key part of how they measure trends. This case is instructive. Had the Plaintiffs’ preferred reading of the law prevailed when the District set its water quality standards, it likely would have excluded the single sample value altogether, lest its inclusion undermine the District’s chosen geometric-mean standard. That outcome would not benefit any of the policies Congress sought to advance in passing the CWA. It would undermine the District’s ability to openly plan for restoration of its waters and would deprive the public, including Plaintiffs, of the ability to gauge the plan’s progress.

In sum, the record establishes that EPA rationally concluded that the District sought to include the 30-day geometric mean criterion as the sole numeric criterion relevant to the TMDL process. And EPA permissibly interpreted the CWA to allow this approach. The Court will therefore grant summary judgment to Defendants on this issue.

3. Narrative Criteria

Plaintiffs also contend that EPA's approval of the District's TMDLs violated the CWA because the TMDLs fail to achieve the narrative criteria. Unlike the dispute over the single-sample value numerical *186 criteria, there is no disagreement that the narrative criteria are “applicable” and thus the TMDLs must satisfy them. Rather, the controversy here is over whether EPA rationally concluded that the TMDLs do so.

Again, the two relevant narrative criteria are, first, that the District's surface waters “be free from substances in amounts or combinations that ... [c]ause injury to, are toxic to, or produce adverse physiological or behavioral changes in humans, plants, or animals,” [D.C.M.R. 21 § 1104.1\(d\)](#), and second, “that Class A waters shall be free of discharges of untreated sewage ... that would constitute a hazard to the users of Class A waters.” [Id.](#) § 1104.3.

[16] In approving the TMDLs, EPA determined that “because the TMDL[s] ... are established ... to achieve the numeric criteria for Class A waterbodies, they are also set at a level to implement all narrative criteria and designated uses for those waterbodies.” EPA0013935. In other words, the agency determined that achievement of the 30-day geometric mean numeric standard sufficed to achieve the two narrative criteria. This conclusion does not withstand scrutiny.

As an initial matter, EPA based its determination on the faulty premise that “[t]he District's water quality standards expressly link attainment of the numeric criteria to achievement of the designated uses.” EPA0013934 (citing [D.C.M.R. 21 § 1104.8](#)). The District's regulation does not support the inference EPA draws. It states that “the numeric criteria ... shall be met to attain and maintain designated uses.” [D.C.M.R. 21 § 1104.8](#). This means only that attainment of the numeric criteria is *necessary* to meet the designated uses, not that it is *sufficient*. The regulation sets narrative criteria, meanwhile, as a distinct set of standards that must also be

achieved to maintain designated uses. [See D.C.M.R. 21 § 1104.1\(d\)](#); [id.](#) § 1104.3

Moreover, even if the regulation did support the proposition that the numeric criterion alone satisfies the designated use, that would not end the inquiry into whether the narrative criteria were satisfied. TMDLs must “attain and maintain the applicable narrative *and* numerical” water quality standards. [40 C.F.R. § 130.7\(c\)](#) (emphasis added). This requirement “is best understood to instruct the State to consider *all* water quality criteria—narrative or numeric—to ensure that *all* designated uses are preserved.” [Jackson II](#), 798 F. Supp. 2d at 230. The TMDLs must satisfy each independent criterion the District established, whether narrative or numeric. EPA's rationale explained that “[w]here there is an existing numeric criterion applicable to a particular pollutant, it is reasonable to conclude that criterion attains the narrative standard and designated uses.” EPA0013935. In its briefing, EPA contends that “because[,] like numeric criteria, narrative criteria must protect designated uses ... once those uses are protected (here, through attainment of the geometric-mean criterion), there is nothing more for the narrative criteria to do.” EPA Mot. Summ. J. at 15. It relies on regulatory language stating that “[w]hen criteria are met, water quality will generally protect the designated use.” [40 C.F.R. § 131.3\(b\)](#). But that regulation merely instructs States that the criteria and the designated uses must be tethered to one another, such that when a designated use such as human recreation is established, the chosen criteria should protect that use. In this context, that regulation establishes that when (1) the 30-day geometric mean *and* (2) the narrative prohibition on bacterial concentration that constitutes a health risk are met, then (3) the recreational designated use is met. EPA attempts *187 to reformulate this to mean that when (1) the 30-day geometric mean is met, then (2) the designated use is met, and because the narrative criteria are designed to protect the designated use, (3) the narrative criteria, too, have been met. That logic renders the narrative criteria superfluous.

EPA contends that because numeric criteria are easily measurable, it is reasonable to assume that satisfaction of those criteria can serve as a proxy for satisfaction of the narrative criteria. EPA Reply at 4; [see also](#) EPA0013934–35. But “[a] conclusion that a TMDL will achieve a particular water quality criterion is not equivalent to a conclusion that the TMDL will meet all criteria ..., at least absent a prior finding that this criterion is the most stringent available.” [Jackson II](#), 798 F. Supp. 2d at 243. Here, EPA made no such finding. The narrative criteria at issue are not only

measurable but have been measured.⁸ EPA has published guidance that sets forth numeric criteria it believes achieve the “primary contact recreation” designated use and the corresponding risk level to human health—the very narrative criteria at issue here. See generally EPA Criteria Guidance. That guidance counsels against relying only on a geometric mean because that “alone would not reflect spikes in water quality.” *Id.* at 39. The record here gives no indication that EPA considered these recommendations in assessing whether the TMDLs are set to attain the narrative criteria. There is no explanation of why, notwithstanding this recommendation, the TMDLs’ achievement of the geometric mean alone satisfied the prohibition on substances in amounts hazardous to human health. Instead, EPA’s rationale rested on two faulty conclusions: that the District’s regulation says that achievement of the geometric mean suffices to attain the designated use and that, even if that weren’t the case, the narrative criteria are satisfied because the numeric criteria are. EPA0013934–35. The Court thus concludes that EPA acted arbitrarily and capriciously in concluding that the TMDLs achieve the narrative criteria.

That said, there is evidence in the record—albeit not evidence on which EPA relied—to suggest that the District satisfied the narrative criteria. The aforementioned EPA guidance on recreational water quality “include[d] EPA’s recommended final recreational water quality criteria ... for the protection of primary contact recreation ..., based upon consideration of all available information relating to the effects of fecal contamination on human health.” Foreward to EPA Criteria Guidance. The document includes a table with *188 two sets of criteria for *E. coli*, each of which consists of a geometric mean and a statistical threshold value (“STV”), a figure that should not be exceeded more than 10% of the time. *Id.* at 42–43. The document explains that “EPA evaluated the available information and the results of [scientific] analyses ... and determined that the primary contact recreation designated use would be protected if one of the ... criteria sets consisting of a GM and an STV were adopted into a state’s [water quality standards] and approved by EPA.” *Id.* at 42.

One of these sets includes a 126 CFU/100 mL geometric mean, which mirrors the District’s numeric criteria. That figure is paired with a 410 CFU/100 mL STV. *Id.* at 43. In its discussion of the inapplicability of the District’s single-sample value of 410 MPN/100 mL, EPA’s decision rationale noted as an aside that the District “provided an analysis demonstrating the allocations in the TMDL would not exceed the single sample value at least 90% of the

time.” EPA0013933. While this note was not addressed to the narrative criteria, it does suggest that the District’s TMDLs might achieve both figures in the set: the TMDLs achieve the relevant geometric mean and, if the 410 MPN/100 mL single sample value is exceeded less than ten percent of the time, it complies with the STV.

If the TMDLs do indeed meet both figures, EPA might reasonably conclude that the TMDLs meet the narrative criteria. But this is not necessarily a foregone conclusion. Plaintiffs have noted that even if the 410 CFU/100 mL figure were exceeded only ten percent of the time, there could still be spikes in *E. coli* levels that risk the health of recreational users. See, e.g., Pls.’ Reply at 17. Indeed, the EPA guidance indicates that achievement of the 126 CFU/100 mL geometric mean and the 410 CFU/100 mL STV would still yield an illness rate of 36 of every 1,000 recreational users, which the guidance depicts as an illness level with “a history of acceptance by the public.” EPA Criteria Guidance at 43.⁹

Plaintiffs also noted at the hearing that EPA itself did not conclude that the 410 MPN/100 mL was not exceeded more than ten percent of the time, apparently relying instead on data provided by the District. Because EPA included this information only as an aside when discussing the inapplicable single-sample value, the record on this matter is not well developed. When considering the next round of TMDLs (assuming they reflect similar choices regarding the narrative criteria), EPA must justify any conclusion regarding achievement of that value and, if it concludes the figure is achieved, consider whether that is consistent with the narrative criteria, notwithstanding the estimated illness rate. The Court cannot prejudice this determination, but EPA may well be able to reasonably reach the conclusion that TMDLs similar to these achieve the narrative criteria.

B. Public Participation

Plaintiffs’ final claim relates not to the substance of the TMDLs, but to the process by which they were approved. Plaintiffs contend that the agency acted arbitrarily and capriciously in concluding that the TMDLs were subject to appropriate public participation.

Under EPA regulations, States have discretion to establish the relevant procedures *189 for their TMDL processes. Consistent with its overall approach of vesting significant discretion in the States, the CWA requires each State

to establish a “continuing planning process” (“CPP”) for implementation of its responsibilities under the Act. 33 U.S.C. § 1313(e). The EPA regulation on TMDLs mandates that the process for establishing TMDLs, including how to “involv[e] the public, ... shall be clearly described in the State” CPP. 40 C.F.R. § 130.7(a); see also *id.* § 130.7(c)(1)(ii) (“Calculations to establish TMDLs shall be subject to public review as defined in the State CPP.”)

Because the Court will vacate the TMDLs on substantive grounds, this procedural claim is mooted. Still, the Court notes that EPA did not consider the District's CPP at all when concluding that the process was adequate. Plaintiffs' briefing indicated that they were unable to locate a CPP for the District, a claim that EPA did not dispute. Shortly before the Court held a hearing on this matter, however, it located a 2018 CPP for the District of Columbia, which referred to previous CPPs, including one submitted to EPA in 2008. At the Court's Order, EPA subsequently filed the 2008 CPP on the public docket. See ECF No. 48. This CPP established public-participation requirements for the District's TMDL development process. Per EPA's own regulations, these requirements are the baseline against which to measure whether the TMDLs were subject to adequate public participation, so they should have been consulted here.

C. Remedy

[17] For the reasons articulated above, the TMDLs do not comply with the CWA. The Administrative Procedure Act instructs courts to “set aside agency action ... found to be ... not in accordance with law[.]” 5 U.S.C. § 706(2)(A). But while immediate vacatur is the presumptive remedy for such action, Plaintiffs do not seek that here. Instead, they ask the

Court to vacate the TMDLs but stay the vacatur for one year to allow the District to establish new TMDLs and avoid a situation in which there are no operative TMDLs. See Am. Compl. ¶ 108.

Other courts in this district that have vacated TMDLs have stayed the vacatur for precisely those reasons. See, e.g., *NRDC*, 301 F. Supp. 3d at 145; *Jackson I*, 713 F. Supp. 2d at 52. The D.C. Circuit has approved this approach because “neither [environmental groups] nor EPA wants the Anacostia River to go without ... TMDLs.” *Friends of the Earth*, 446 F.3d at 148; see also *id.* (“The district court retains some remedial discretion ... to stay the ... order ... to give either the District of Columbia a reasonable opportunity to establish daily load limits or EPA a chance to amend its regulation declaring ‘all pollutants ... suitable’ for daily loads.” (citation omitted)).

This Court will follow suit. Better these TMDLs than no limits at all. Accordingly, the Court will vacate the TMDLs but stay the vacatur for one year to allow the District to develop new TMDLs or EPA to revisit its regulations.

IV. Conclusion

For the foregoing reasons, the Court will grant in part and deny in part Plaintiffs' Motion for Summary Judgment, grant in part and deny in part Defendant's Motion for Summary Judgment, and grant in part and deny in part Intervenor Defendant's Motion for Summary Judgment. A separate Order shall accompany this Memorandum Opinion.

All Citations

404 F.Supp.3d 160

Footnotes

- 1 The plaintiff organizations are Anacostia Riverkeeper, the Kingman Park Civic Association, and the Potomac Riverkeeper Network.
- 2 Until 2008, the District used fecal coliform rather than *E. coli* in its water quality standards. Both bacteria types are “indicator bacteria” for other fecal bacteria. EPA0011831. Accordingly, the 2004 TMDLs were addressed to fecal coliform, not *E. coli*. EPA0010921–48. Consistent with EPA guidance, the District had in the interim changed its relevant water quality standards to use *E. coli* rather than fecal coliform. EPA0011831. The new TMDLs used a “translator” equation to convert some of the figures addressed to fecal coliform in the 2004 TMDLs into figures addressing *E. coli*. EPA0011832. That process is not at issue in the case. For Blue Plains and the combined sewer overflow, the new annual *E. coli* loads were based on other data. EPA0011835. For ease, this Opinion will refer to the re-adoption of the 2004 annual expression and conversion to *E. coli* simply as reincorporation of the previous TMDLs.
- 3 D.C. Water makes a skeletal challenge to the Plaintiffs' standing on the theory that any changes to TMDLs will not necessarily affect permits. The Court has carefully considered this argument but sees no need to devote a full section

of this Opinion to it. Suffice it to say that many other courts that have considered an environmental group's challenge to TMDLs have reached the merits of the claim. As Judge Bates put it when D.C. Water opposed these Plaintiffs' intervention in its challenge to EPA's earlier approval of these same TMDLs, "by [D.C. Water's] logic no one—perhaps not even D.C. Water—can challenge a TMDL ... and yet courts have allowed challenges to TMDLs by both environmental groups and industry." D.C. Water v. EPA, Case No. 15-cv-2044, Order, ECF No. 17 (July 5, 2016 D.D.C.).

- 4 Additionally, the record is less clear than it would ordinarily be because of the public participation process that is another subject of this suit. The District issued the final version of its TMDLs without a comment period. The Court need not decide whether this was proper, see infra Part III.B, but notes that it complicates the record. In the ordinary course, after an initial notice of the figures, the public could comment to identify any perceived flaws, and the District could respond.
- 5 EPA requires every municipality with certain types of sewer systems to prepare a Long Term Control Plan to ensure compliance with water quality standards. See 33 U.S.C. § 1342(q). In this case, D.C. Water developed its Plan in 2002 and submitted it for EPA and local regulatory approval, a process finalized in 2004. See D.C. Water Mot. Summ. J. at 3. As it developed the Plan, D.C. Water conducted a series of studies and scientific calculations to determine what levels of discharge would ensure compliance with the 30-day geometric mean water quality criterion. These calculations formed the basis of some of the assumptions made regarding Blue Plains during the TMDL process. EPA0011838.
- 6 *Amici*, who submitted their brief in support of D.C. Water, also raise serious concerns about the methods used to calculate daily expressions in this instance. See *Amici* Br. at 12 n.10.
- 7 Similarly, this case is not about the regulatory presumption of non-daily discharge permits for publicly owned treatment works ("POTWs"). *Amici* note that EPA regulations dictate that NPDES permits "shall ... be stated as ... [a]verage weekly and average monthly discharge limitations for POTWs" such as Blue Plains. 40 C.F.R. § 122.45(d); see also *Amici* Br. at 19–20. But, again, because these permits need not mirror TMDLs, accepting Plaintiffs' contentions will not upend that presumption, as *amici* suggest.
- 8 This measurable baseline distinguishes the narrative criteria at issue here from those in a portion of the district court's Friends of the Earth decision that went unreviewed by the D.C. Circuit. In that case, the court declined to strike down TMDLs based on periodic spikes in pollution that plaintiffs had argued violated the relevant standards. See Friends of the Earth v. EPA, 346 F. Supp. 2d 182, 202 (D.D.C. 2004). There, the narrative standard prevented "objectionable" turbidity, a subjective standard that was not further defined. Id. at 201. Judge Urbina read the criterion in light of the "recreational and aesthetic designated use" and concluded that it did not "reasonably contemplate[] the utilization of waters immediately after infrequent, disruptive storm events." Id. at 201–02. Thus, he declined to strike down EPA's approval on the "whim of that unlikely aquatic enthusiast who will not tolerate anything less than the immediate enjoyment of river waters after disruptive storm events." Id. at 202. But the subjective nature of the standard was key to Judge Urbina's decision. See id. at 201 ("Objectionable to whom, one might wonder."). Here, by contrast, the narrative criteria are not subjective. The levels at which *E. coli* concentration is hazardous to the health of recreational users, and at what rate, is known. See EPA Criteria Guidance at 43.
- 9 EPA's approval of the previous TMDLs did just this, considering EPA guidance regarding narrative criteria protecting Class A water users from fecal bacteria, and noting the associated illness rate. EPA0010938–39. This underscores the arbitrariness of EPA's failure to do so here.