

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

POTOMAC RIVERKEEPER, INC., *et al.*,

*Plaintiffs,*

v.

ANDREW WHEELER,<sup>1</sup> Administrator, U.S.  
Environmental Protection Agency, *et al.*,

*Defendants.*

No. 17-cv-1023 (DLF)

**MEMORANDUM OPINION**

The Clean Water Act (CWA) requires each state to prepare a list of impaired waters within its borders every two years for the U.S. Environmental Protection Agency (EPA) to approve, modify, or reject. The plaintiffs are recreational and conservancy organizations whose members use and enjoy the Shenandoah River. They bring this action under the Administrative Procedure Act (APA) to challenge EPA's approval of Virginia's 2016 impaired waters list, which did not identify any segments of the Shenandoah River as impaired for recreational use despite numerous complaints from the public of excessive algal growth. Before the Court are the plaintiffs' Motion for Summary Judgment, Dkt. 43, defendant EPA's Cross-Motion for Summary Judgment, Dkt. 47, and defendant-intervenor Virginia Association of Municipal Wastewater Agencies, Inc.'s (VAMWA's) Cross-Motion for Summary Judgment, Dkt. 45. For the reasons that follow, the Court will grant EPA's and VAMWA's motions and deny the plaintiffs' motion.

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<sup>1</sup> When this suit began, Scott Pruitt was the Administrator of the EPA. When Andrew Wheeler became the Administrator, he was automatically substituted. *See* Fed. R. Civ. P. 25(d).

## I. BACKGROUND

### A. The CWA and EPA Regulations

Congress passed the CWA to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To that end, the CWA requires states to establish EPA-approved “water quality standards.” *See* 33 U.S.C. § 1313(a)–(c).

A water quality standard consists of two parts: a list of “designated uses”—such as drinking or swimming—and the “water quality criteria” necessary to support those uses. *Id.* § 1313(c)(2)(A). A state can express its water quality criteria through scientific “numerical values” or more general “narrative criteria.” *See* 40 C.F.R. § 131.11(b).

When a segment of water fails to meet an applicable water standard, it is considered “impaired,” and the state must “identify” it in a list—dubbed the state’s “impaired waters list” or “303(d) list”—submitted to EPA every two years for approval. *Nat. Res. Def. Council v. EPA*, 301 F. Supp. 3d 133, 137 (D.D.C. 2018) (citing 33 U.S.C. § 1313(d) and 40 C.F.R. § 130.7(b)(3), (d)). This identification triggers important consequences. When a state identifies a water as impaired, the state generally must also establish “total maximum daily loads” that limit the amount of particular pollutants the water can receive and still meet all applicable water quality standards. *See* 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 130.7(c)(1). In addition, the state must establish permit limits and other controls to enforce the total maximum daily loads and obtain full compliance with the state’s water quality standards over time. *See* 33 U.S.C. § 1313(e)(3); 40 C.F.R. § 122.44(d)(1).

EPA regulations outline the process a state must follow in preparing its impaired waters list. Among other things, the state must “assemble and evaluate all existing and readily available water quality-related data and information to develop the list.” 40 C.F.R. § 130.7(b)(5). And it must “provide documentation” to EPA “to support” its “determination to list or not to list its

waters.” *Id.* § 130.7(b)(6). This documentation must include “[a] description of the data and information used to identify waters,” *id.* § 130.7(b)(6)(ii), and “[a] rationale for any decision to not use any existing and readily available data and information,” *id.* § 130.7(b)(6)(iii).

A state can meet these and other reporting obligations under the CWA by submitting a single “Integrated Report” to EPA every two years. *See* EPA0016874–77. The state must take steps to involve the public in preparing this report, *see* 33 U.S.C. § 1313(e); 40 C.F.R.

§ 130.7(a), but EPA is not required to conduct a second round of public comment during its approval process, *see City of Dover v. EPA*, 36 F. Supp. 3d 103, 118 (D.D.C. 2014).

## **B. Virginia’s Water Quality Standards**

Virginia’s water quality standards provide that

[a]ll state waters, including wetlands, are designated for the following uses: *recreational uses, e.g., swimming and boating*; the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them; wildlife; and the production of edible and marketable natural resources, e.g., fish and shellfish.

9 Va. Admin. Code § 25-260-10.A (emphasis added).

Virginia regulations also establish the applicable water-quality criteria for these uses. In addition to providing numeric criteria for certain pollutants, Virginia has adopted the following narrative criteria, which apply to all designated uses:

State waters, including wetlands, shall be free from substances attributable to sewage, industrial waste, or other waste in concentrations, amounts, or combinations which *contravene established standards* or *interfere directly or indirectly with designated uses* of such water or which are inimical or harmful to human, animal, plant, or aquatic life.

Specific substances to be controlled include, but are not limited to: floating debris, oil, scum, and other floating materials; toxic substances (including those which bioaccumulate); substances that produce color, tastes, turbidity, odors, or settle to form sludge deposits; and substances which nourish *undesirable or nuisance aquatic plant life*.

*Id.* § 25-260-20.A (emphases added).

A state agency called the Virginia Department of Environmental Quality—or “DEQ”—is responsible for preparing Virginia’s impaired waters list and submitting it to EPA as part of a single, biennial Integrated Report. *See* EPA0058646–48, EPA0058662. DEQ begins this process by preparing a draft “Water Quality Assessment Guidance Manual” that describes the methodology DEQ plans to use in identifying impaired waters. EPA0051579–82. The public then has a chance to submit comments on the proposed methodology before DEQ applies it. *See* EPA0058701.

In accordance with EPA guidance, *see* EPA0016922, Virginia’s current Water Quality Assessment Guidance Manual provides for the division of waters into five major categories and several subcategories, EPA0058662–64. Two of those categories are relevant here.

“Category 3C” applies to waters for which “data” has been “collected by a citizen monitoring or another organization indicating water quality problems may exist but the methodology and/or data quality has not been approved for a determination of support of designated use(s).” EPA0058663. Category 3C waters have “insufficient data” to support an impairment determination but are “prioritized by DEQ for follow-up monitoring.” *Id.*<sup>2</sup>

“Category 5” applies to impaired waters and serves as Virginia’s 303(d) list. *See* EPA0058663–64.

### **C. Virginia’s Approach to Citizen-Generated Data**

To encourage public efforts to collect and analyze water-quality data, while ensuring that citizen-generated data is used appropriately, Virginia has released a “Virginia Citizen Water

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<sup>2</sup> EPA has instructed states to use this category since at least 2006. *See* EPA0016874–77, EPA0016922 (guidance memo for 2006 listing season); *see also* EPA0016967 (explaining that EPA created Category 3 in response to a 2001 report by the National Research Council).

Quality Monitoring Methods Manual” that explains how DEQ treats citizen-generated data. *See* EPA0058683. The manual separates citizen data into three tiers.

“Level I” data includes data for which “[t]here is no Quality Assurance Project Plan (QAPP) or Standard Operational Procedures (SOP) on file.” *Id.* Such data is “[n]ot approved by DEQ for assessment” but is still used (1) “to identify sites that may require DEQ to perform follow-up monitoring,” (2) “for educational or outreach purposes,” and (3) to “notify DEQ of significant pollution events for rapid agency response.” *Id.*

“Level II” data is generated using “a monitoring method similar”—but not identical—“to DEQ protocols.” *Id.* Such data is only “[p]artially approved by DEQ” and is used for the same purposes as Level I data, as well as “to identify possible waters with observed effects or waters that appear to be healthy but will need DEQ monitoring data to confirm.” *Id.* Of relevance here, DEQ uses Level II data to classify water segments as Category 3C (prioritized for follow-up monitoring). *Id.*

“Level III” data must be prepared using “DEQ testing” and “quality assurance” protocols. *Id.* A group responsible for preparing such data must have in place “a DEQ approved [Quality Assurance Project Plan] and [Standard Operating Procedures].” *Id.* (abbreviations expanded). Level III data is treated “as if DEQ had collected and analyzed” the data for itself, and—unlike Level I and Level II data—Level III data is used to determine whether waters should be added to or removed from Virginia’s impaired waters list. EPA0058684.

#### **D. EPA Guidance**

EPA, for its part, has published non-binding guidance on how states can “identify[] nutrient-impacted waters”—such as those with excessive algal growth—in the absence of “numeric nutrient water quality criteria.” EPA0016992; *see generally* EPA0016987, EPA0016994–99. The guidance lists “a number of examples of approaches” to “inform States

that have not yet established nutrient assessment methods for applicable narrative criteria and to illustrate how some States assess their waters pending the adoption of numeric nutrient criteria.” EPA0016995.

One way a state “can determine whether a waterbody is attaining . . . relevant narrative criteria and designated uses” is through the use of “visual assessments,” including “field observations of excessive algal growth, . . . presence or duration of harmful algal blooms, unsightly green slimes or water column color, and/or objectionable odors.” EPA0016994. To assess impairment of recreational use, states can also consider “beach closures or outbreaks of waterborne illness among swimmers.” *Id.* When evaluating this kind of evidence, states should “consider feedback from the general public and waterbody users about the condition of the waterbody such as photographs or testimonials of abundant algal mats that impede recreation or create unsightly aesthetics in the waterbody.” *Id.*

“Another approach to assessing waterbodies,” however, is to “develop[] numeric water quality targets or thresholds for [certain nutrients] that are used as quantitative ‘translations’ of [a state’s] narrative criteria.” *Id.* These “translations” are distinct from “EPA approved water quality standards containing numeric nutrient criteria” and “are often described in State guidance or methodology documents.” *Id.* States can use these “numeric target values in combination with [other] measurements” when “implementing their narrative criteria.” *Id.*

In describing these various “[l]isting [a]pproaches,” EPA0016993, EPA made clear that it did “not endorse one method over another,” and it emphasized that “the appropriateness of a particular method will depend on [a] variety of fact-specific circumstances.” EPA0016995.

#### **E. Virginia’s 2010, 2012, and 2014 Integrated Reports**

Although the plaintiffs’ legal challenge focuses on Virginia’s 2016 Integrated Report, *see* Second Am. Compl. ¶¶ 62–67, Dkt. 37, their dispute with DEQ began long before then, in

connection with Virginia’s 2010, 2012, and 2014 Integrated Reports. Each year, plaintiff Shenandoah Riverkeeper submitted comments documenting what it considered excessive algal growth impeding recreational use of the Shenandoah River. *See, e.g.*, EPA0000001–7 (2010 comments); EPA0003399–403, EPA0003406–524 (2012 comments); EPA0046327–33<sup>3</sup> (2014 comments). And each year, DEQ declined to rely on Shenandoah Riverkeeper’s comments and chose not to identify any segment of the Shenandoah as impaired for recreational use. *See, e.g.*, EPA0000153–196 (responses to 2010 comments); EPA0004951–5204 (responses to 2012 comments); EPA23147–26823 (responses to 2014 comments).

EPA ultimately approved Virginia’s 2010, 2012, and 2014 lists. *See* EPA0002758–65 (2010 approval); EPA0003775–84 (2012 approval); EPA0023096–108 (2014 approval). In the case of the 2012 and 2014 reports, EPA’s approval followed extensive discussions between EPA and DEQ about Shenandoah Riverkeeper’s comments and whether they justified applying Category 3C to certain segments of the Shenandoah River. *See* Pls.’ Br. at 11–13, 15–16, Dkt. 43 (summarizing discussions with citations to the administrative record)

In approving Virginia’s 2012 Integrated Report, EPA acknowledged that Virginia lacked a clear “methodology” for evaluating algal growth and had not developed formal “quality assurance/quality control” protocols for evaluating photographs and testimonials submitted by the public. EPA0003780. But it warned DEQ that it could “not indefinitely defer making [an impairment] determination by postponing methodology development.” EPA0003783.

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<sup>3</sup> *See also* EPA0023267–354, EPA0023355–400, EPA0023588–616, EPA0023208–61, EPA0022594–3030, EPA0048159, EPA0048161–62, EPA0048165–70, EPA0048178–79, EPA0048181, EPA0048190–92, EPA0048202–03, EPA0048218, EPA0048248–49, EPA0048255–56, EPA0048259, EPA0048271–75, EPA0048288–89, EPA0048300, EPA0048303, EPA0048308–11, EPA0048314.

The 2014 Integrated Report and approval are worth describing in detail, since they involved many of the same issues raised here. Shenandoah Riverkeeper’s comments to DEQ’s draft 2014 report were extensive. They included over 1,000 photographs and 15 videos of algal blooms (along with a table reporting their date and location), EPA0022594–3030, EPA0023355–400; 126 testimonials by recreational users, EPA0023267–354; and an expert report documenting “excessive algal growths” and their negative impacts on recreational use “throughout at least the period from 2007 to 2014,” EPA0023209; *see generally* EPA0023208–23261. The expert report included a systematic study of algae coverage in “many areas during the months of June and July of 2012,” EPA0023221; an evaluation of the scope and extent of algal growth in the Shenandoah River, EPA0023240–42; and citations to scientific literature supporting the methodologies used to measure algal growth and its impact on recreational use and aquatic life, *see, e.g.*, EPA0023221–23, EPA0023244–48.

DEQ reviewed and responded to these and other public comments. *See, e.g.*, EPA0023262–66, EPA0026678, EPA0028930–31. But ultimately, DEQ concluded that there was “insufficient data” to justify listing any stretches of the Shenandoah River as impaired. EPA0028930. DEQ considered the data provided by Shenandoah Riverkeeper, but it explained that the “information received from concerned citizens was largely anecdotal,” and it adhered to its “long-standing policy of basing impairment decisions solely on [Level III] data collected with an agency-approved quality assurance plan.” *Id.*

Although DEQ did not rely on citizen-generated data to make an impairment determination, it did use “citizen comments,” “photographic evidence,” and “information provided by citizen groups” to classify seven assessment units—comprising roughly 25 miles of the Shenandoah River—as Category 3C. EPA0028930. DEQ noted that the information it



received showed that “water quality problems may exist” but concluded that the information was “not sufficient for making a determination of impairment.” *Id.* Accordingly, DEQ “prioritized” these seven assessment units “for monitoring” so that their status could be “resolved with additional data.” *Id.* DEQ also explained that, moving forward, it intended “to develop a scientifically valid field method for evaluating algae” based on input from the Interstate Commission on the Potomac River Basin, DEQ staff, an Academic Advisory Committee, and several neighboring states. EPA0028930–31.

EPA ultimately approved Virginia’s 2014 impaired waters list. EPA0023096, EPA0023098–108. In its approval, EPA specifically addressed Virginia’s “response to public concerns over excess algae in the Shenandoah River.” EPA0023104. EPA noted that “implementing” Virginia’s narrative water criteria in the context of algal growth “present[ed] unique challenges.” *Id.* Because the narrative criteria “include[d] a subjective component based upon the perception of river users,” it was “challenging” to identify impairments in a “consistently repeatable” fashion. *Id.* In addition, the photographs, testimonials, and algae data submitted by Shenandoah Riverkeeper—while extensive—“varied by segment, spatially and temporally throughout the Shenandoah River basin,” and DEQ had “determined that the data” provided did “not meet the State’s quality standards for use” in impairment determinations. *Id.*

EPA emphasized that DEQ had “acknowledged” several segments “for which [Shenandoah Riverkeeper] submitted multiple types of information” that should be classified as Category 3C even though the information was “insufficient for making impairment determinations.” *Id.* EPA “defer[red] to the state’s judgement [sic] that additional data and information collection [wa]s necessary before it c[ould] resolve the attainment status of [the Shenandoah] waters in light of the specific language of Virginia’s narrative criterion.” *Id.* And

it noted that Virginia’s “prioritization” of certain segments of the Shenandoah “for targeted monitoring for algae” entailed “a number of commitments” to “gather additional information” so that DEQ could be expected to “make impairment decisions on the impact of algal blooms . . . starting in 2018.” EPA0023105.

Although EPA approved the 2014 Integrated Report, it disagreed with several of the “additional explanations” Virginia had offered for its decision. EPA0023105. Of relevance here, EPA clarified that “the lack of a formalized methodology” for handling particular kinds of data “is not a basis for a state to avoid evaluating data or information when developing its 303(d) list” and that a citizen-group’s failure to maintain a state-approved quality assurance plan is not a sufficient basis for categorically excluding that group’s data. EPA0023105–06. With these caveats, EPA approved Virginia’s 2014 impaired waters list.

#### **F. Virginia’s 2016 Integrated Report and EPA’s Approval**

In its Draft 2016 Integrated Report, DEQ again declined to list any segments of the Shenandoah River as impaired. *See* EPA0063350, EPA0063427–28. In response, Shenandoah Riverkeeper re-submitted the same expert report it had previously included in its comments to the Draft 2014 Integrated Report. *See* EPA0058448–501; Pls.’ Br. at 16–17. In addition, it submitted nine new photographs from July and August 2017 showing that excessive algal growth had reoccurred in the 2017 summer season. EPA0058438–47.

DEQ remained unmoved. It reviewed the comments to its draft report, including the “additional photographic evidence” and “recent information provided by citizen groups,” EPA0058720, and provided a comprehensive response, *see* EPA0054724–5073. Ultimately, however, it concluded that “uncertainty” remained “about the attainment status” of the seven assessment units previously classified as Category 3C in 2014. EPA0058720.

DEQ further explained that it had begun “developing a scientifically valid field method for evaluating algae” that could “be applied consistently throughout the state.” *Id.* Specifically, it had hired two employees “dedicated to algae monitoring,” tested multiple methodologies for measuring algae, and gathered samples to “estimate algae densities” using a method previously employed in Montana. *Id.* But even these new monitoring efforts did not yield enough information to support an impairment determination. Many segments of the Shenandoah “showed little to no algae throughout the 2016 growing season” and others showed only “ephemeral” algae “dependent on multiple variables including precipitation, river flows, and sunlight.” *Id.* Because “more data” was still “needed before decisions on recreation use” could be made, the final 2016 Integrated Report continued to classify the seven prioritized assessment units as Category 3C. *Id.*

EPA approved Virginia’s 2016 impaired waters list for the same reasons it approved Virginia’s 2014 list. EPA observed that DEQ had “previously evaluated citizen complaints and information received in 2012 and 2014 related to algal growth in the Shenandoah River” and had “decided to collect additional information before making a use attainment decision.” EPA0055922–23. EPA had in turn “consider[ed] the complexity and the subjective nature of the applicable water quality standard and the variability and limitations of the available data associated with algae cover” and found DEQ’s decision to collect more information “reasonable.” EPA0055923.<sup>4</sup> The new photographs submitted by the plaintiffs were consistent

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<sup>4</sup> Because EPA incorporated its and DEQ’s previous consideration of Shenandoah Riverkeeper’s comments into EPA’s 2016 report, the Court will consider the analysis contained in both the 2014 report and approval and the 2016 report and approval in assessing the plaintiffs’ arbitrary and capricious challenge.

with that decision and did not require a different result. EPA0055923–24. Moreover, they were taken outside the time period covered by the 2016 list, which ended on December 31, 2014. *Id.*

In approving Virginia’s 2016 list, EPA noted that Virginia had “made commitments to develop a field methodology” for estimating algal growth and “to develop a numeric impairment threshold to be used in attainment decisions” regarding recreational use. EPA0055923. EPA reviewed DEQ’s progress on those commitments and repeated its expectation that the additional data collected by Virginia would be “used for attainment decisions in connection with Virginia’s 2018” impaired waters list. EPA0055924. In the meantime, EPA concluded that DEQ’s “decision to collect additional data” on “the impacts of algae on” recreational uses of the Shenandoah River was “reasonable.” *Id.*

### **G. Procedural History**

The plaintiffs filed this action on May 30, 2017. Initially, they challenged EPA’s approval of Virginia’s 2014 impaired waters list, *see* Compl. ¶¶ 45–60, Dkt. 1, but they later amended their complaint to challenge EPA’s approval of Virginia’s 2016 list instead, *see* Second Am. Compl. ¶¶ 55–65, Dkt. 37. At first, the plaintiffs sued only EPA and its Administrator, Second Am. Compl. at 1, but VAMWA was permitted to intervene as a defendant, without objection, *see* VAMWA’s Mot. to Intervene, Dkt. 18; Pls.’ Response to VAMWA’s Mot. to Intervene, Dkt. 21; Apr. 23, 2018 Minute Order. The defendants answered the complaint, as amended, *see* Dkts.’ 39, 40, and all three parties filed motions for summary judgment, *see* Dkts. 43, 45, 47, which the Court now resolves.

## **II. LEGAL STANDARD**

A court grants summary judgment if the moving party “shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *see also Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–48 (1986). A

“material” fact is one with potential to change the substantive outcome of the litigation. *See Liberty Lobby*, 477 U.S. at 248; *Holcomb v. Powell*, 433 F.3d 889, 895 (D.C. Cir. 2006). A dispute is “genuine” if a reasonable jury could determine that the evidence warrants a verdict for the nonmoving party. *See Liberty Lobby*, 477 U.S. at 248; *Holcomb*, 433 F.3d at 895.

Here, the plaintiffs seek review of agency action, invoking the APA’s requirement that a court “hold unlawful and set aside” any aspect of a final agency action that is “arbitrary [and] capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). In an APA case, summary judgment “serves as the mechanism for deciding, as a matter of law, whether the agency action is supported by the administrative record and otherwise consistent with the APA standard of review.” *Sierra Club v. Mainella*, 459 F. Supp. 2d 76, 90 (D.D.C. 2006). In other words, “the entire case . . . is a question of law” and the district court “sits as an appellate tribunal.” *Am. Biosci., Inc. v. Thompson*, 269 F.3d 1077, 1083 (D.C. Cir. 2001) (footnote and internal quotation marks omitted).

Arbitrary and capricious review is “fundamentally deferential—especially with respect to matters relating to an agency’s areas of technical expertise.” *Fox v. Clinton*, 684 F.3d 67, 75 (D.C. Cir. 2012) (alteration adopted and internal quotation marks omitted). A court “is not to substitute its judgment for that of the agency.” *Motor Vehicle Mfrs. Ass’n of U.S. v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983). Rather, its review is limited to whether the agency “relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, [or] offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Agape Church v. FCC*, 738 F.3d 397, 410 (D.C. Cir. 2013) (quoting *State Farm*, 463 U.S. at 43).

In conducting this inquiry, the court does “not look at the agency’s decision as would a scientist, but as a reviewing court exercising [its] narrowly defined duty of holding agencies to certain minimal standards of rationality.” *Am. Trucking Ass’ns v. Fed. Motor Carrier Safety Admin.*, 724 F.3d 243, 249 (D.C. Cir. 2013) (alteration adopted and internal quotation marks omitted); *see also Chem. Mfrs. Ass’n v. EPA*, 28 F.3d 1259, 1263 (D.C. Cir. 1994) (describing the standard as “indulgent”). “When examining . . . scientific determination[s], as opposed to simple findings of fact, a reviewing court must generally be at its most deferential.” *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 103 (1983). “Even an agency ‘decision of less than ideal clarity’ should be upheld ‘if the agency’s path may be reasonably discerned.’” *Anacostia Riverkeeper, Inc. v. Jackson*, 798 F. Supp. 2d 210, 222 (D.D.C. 2011) (quoting *State Farm*, 463 U.S. at 43)). The party challenging an agency’s action as arbitrary and capricious bears the burden of proof. *Pierce v. SEC*, 786 F.3d 1027, 1035 (D.C. Cir. 2015).

### III. ANALYSIS

The plaintiffs claim that the expert report, photographs, and testimonials they submitted during the comment period established that at least some segments of the Shenandoah River were impaired for recreational use due to excessive algal growth.<sup>5</sup> Yet, according to the plaintiffs, DEQ ignored this evidence and refused to apply Virginia’s narrative water quality criteria as written—preferring instead to drag its feet while it develops a more convenient numerical criteria with no basis in Virginia’s regulations. EPA, the plaintiffs argue, rubber-

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<sup>5</sup> Although the plaintiffs also make several brief references to impairment based on Virginia’s “aquatic life” use, *see* Pls.’ Br. at 14; Pls.’ Proposed Order at 2, Dkt. 44-4; Pls.’ Reply at 16, Dkt. 49, they do not advance any arguments specific to that use and have therefore waived any challenge based on aquatic life impairment, *see Stoller v. United States*, 216 F. Supp. 3d 171, 176 n.8 (D.D.C. 2016) (“In this circuit it is clear that perfunctory and undeveloped arguments . . . are deemed waived.”) (internal quotation marks omitted)).

stamped these failures and, in doing so, acted arbitrarily and capriciously and in violation of the CWA.

The plaintiffs' challenge has both a procedural and a substantive component. Procedurally, the plaintiffs argue that by refusing to rely on Shenandoah Riverkeeper's data to make an impairment determination based on recreational use, DEQ failed to "assemble and evaluate" all relevant data as required by 40 C.F.R. § 130.7(b)(5). *See* Pls.' Br. at 23–26. Substantively, they argue that EPA's approval erroneously relied on (1) the complex and subjective nature of Virginia's narrative water-quality criteria, (2) the variability and limitations of available algae data, and (3) Virginia's plans to develop a numerical impairment threshold for algal growth in the future. *See id.* at 26–34.<sup>6</sup> In the plaintiffs' view, these considerations were either illegitimate or irrational, making EPA's approval contrary to the CWA, arbitrary and capricious, or both. The Court will consider each of the plaintiffs' arguments in turn.

#### **A. Standing**

As a threshold matter, the plaintiffs have standing to bring this suit. The plaintiffs and VAMWA devote pages of briefing to whether the plaintiffs have informational standing, *see* Pls.' Br. at 19–20; VAMWA's Br. at 35–38, Dkt. 45–1; Pls.' Reply at 17–18; VAMWA's Reply at 8–11, Dkt. 51, but it is not clear why. The defendants concede "that Plaintiffs have standing based on alleged harm to their members' recreational and aesthetic interests." VAMWA's Reply at 9; *see also generally* EPA's Br., Dkt. 47 (no objection to standing). And the Court agrees.

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<sup>6</sup> The plaintiffs also argue more generally that "overwhelming evidence" establishes that the entire Shenandoah River was impaired for recreational use. *See* Pls.' Br. at 22–23. But this argument depends on the premise that DEQ and EPA were required to rely on the plaintiffs' data, *see id.* at 22, and assumes that EPA's reasons for reaching a contrary conclusion were unlawful or arbitrary and capricious. It therefore collapses into the plaintiffs' more specific attacks on EPA's approval and need not be considered separately.

An organization can sue on behalf of its members when (1) “its members would otherwise have standing to sue in their own right,” (2) “the interests it seeks to protect are germane to the organization’s purpose,” and (3) “neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.” *Hunt v. Wash. State Apple Advert. Comm’n*, 432 U.S. 333, 343 (1977). To have standing, a plaintiff must have “(1) suffered an injury in fact, (2) that is fairly traceable to the challenged conduct of the defendant, and (3) that is likely to be redressed by a favorable judicial decision.” *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016). An “injury in fact” can be to “environmental—including aesthetic, conservational and recreational—. . . interests,” *Envtl. Def. Fund v. EPA*, 465 F.2d 528, 531 n.1 (D.C. Cir. 1972), as long as the plaintiff seeking review is personally “among the injured,” *Sierra Club v. Morton*, 405 U.S. 727, 735 (1972).

The plaintiffs have met these requirements. Through sworn declarations, they have established that their individual members use and enjoy the Shenandoah River and have concrete plans to do so in the future; that their members’ aesthetic and recreational interests in the river have been harmed by prolific algae growth left unaddressed by EPA and VAMWA; and that an order directing EPA to disapprove DEQ’s impaired waters list and designate the Shenandoah River as impaired would likely redress such harm. *See* Finch Decl. ¶¶ 1–20 (Potomac River Smallmouth Club), Dkt. 44-3; Kimm Decl. ¶¶ 1–18 (same); Frondorf Decl. ¶¶ 1–25 (Shenandoah Riverkeeper); Gibson Decl. ¶¶ 1–21 (Potomac Riverkeeper Network). Moreover, the aesthetic and recreational interests asserted by the plaintiffs’ members are directly related to the plaintiffs’ organizational purposes. *See, e.g.*, Finch Decl. ¶ 4 (Potomac River Smallmouth Club), Frondorf Decl. ¶¶ 7–9 (Potomac Riverkeeper Network and Shenandoah Riverkeeper). Finally, the Court’s review of the administrative record “as an appellate tribunal” will not require the participation of



any individual members. *Am. Biosci., Inc.*, 269 F.3d at 1083. The Court therefore agrees with the parties that the plaintiffs have associational standing and does not reach whether they also have informational standing.

### **B. The Plaintiffs' Procedural Challenge**

The plaintiffs' procedural challenge turns in part on the interaction between two regulatory provisions. The first requires "[e]ach State" to "assemble and evaluate all existing and readily available water quality-related data and information to develop the [state's impaired waters] list." 40 C.F.R. § 130.7(b)(5). The second requires states to provide a "rationale for any decision to not use any existing and readily available data and information . . . as described in § 130.7(b)(5)." *Id.* § 130.7(b)(6)(iii).

The plaintiffs argue that to "evaluate" data under § 130.7(b)(5) means to use it to make an impairment determination. *See* Pls.' Br. at 25. Thus, in the plaintiffs' view, §§ 130.7(b)(5) and (b)(6)(iii) give states two mutually exclusive options: either the state can "evaluate" data—by using the data to make an impairment determination—or it can choose "to not use" the data at all. *See id.* at 23–25. But a state cannot "evaluate" data under § 130.7(b)(5) and then decide "to not use" it under § 130.7(b)(6)(iii) because "evaluat[ing]" and "us[ing]" data mean the same thing. As a result, the plaintiffs argue, § 130.7(b)(6)(iii) must be considered "a narrow exception" to § 130.7(b)(5), Pls.' Br. at 26, that cannot be used "to swallow the rule" that states generally must use all available data to make an impairment determination, *id.* at 24 (quoting *Nat. Res. Def. Council v. EPA*, 863 F.2d 1420, 1432 (9th Cir. 1988)).

EPA views §§ 130.7(b)(5) and (b)(6)(iii) differently. According to EPA, the two provisions are not mutually exclusive options but rather sequential steps. First, the state must "assemble and evaluate" all relevant data under § 130.7(b)(5); then, based on that preliminary evaluation, the state may decide whether to use or "to not use" the data to make an impairment

determination. *See* EPA’s Br. at 22–24; *see also* EPA0023105 (“It is EPA’s longstanding position that, while states are required to evaluate all existing and readily available water quality-related data and information, states may make reasonable decisions whether and how particular data or information is used in determining whether to list particular waters.”); *Sierra Club v. Leavitt*, 488 F.3d 904, 913 (11th Cir. 2007) (“While § 130.7(b)(6)(iii) implies that [the state] has a right to decide not to *use* certain data, it does not obviate the requirement in § 130.7(b)(5) that [the state] *evaluate* all existing and readily available data.”). In EPA’s view, as long as the state provides a “rationale” for any decision “to not use” certain data, EPA may accept that rationale, and its acceptance will be entitled to deference. EPA’s Br. at 22–25; *see also Ctr. for Biological Diversity v. EPA*, 90 F. Supp. 3d 1177, 1212 (W.D. Wash. 2015) (“EPA’s decision to accept [a state’s] rationale [for not using certain data] [i]s informed by its technical expertise and experience in a complex scientific area and, as such, is entitled to great deference.”).

EPA’s interpretation better accords with the plain text and structure of § 130.7(b). As the plaintiffs point out, the plain meaning of “evaluate” is to “determine or fix the value of” something or “to determine [its] significance, worth, or condition . . . by careful appraisal and study.” Pls.’ Br. at 25 (emphases omitted) (quoting Merriam-Webster, <https://www.merriam-webster.com/dictionary/evaluate>). A state therefore cannot simply ignore available data; it must, at a minimum, assess the data’s reliability and significance. *See Leavitt*, 488 F.3d at 913 (rejecting agency’s “hard-line approach” of not even “considering any data older than 7.5 years”). But it does not follow that the agency must rely on or use data to comply with § 130.7(b)(5). In fact, § 130.7(b)(6)(iii) expressly permits a state to decide “to not use” data, as long as it has “assemble[d] and evaluate[d]” the data and articulated a “rationale” for its decision.

If “evaluate” meant “use,” as the plaintiffs argue, then EPA presumably would not have used the two different terms in nearby provisions to describe the same thing. *Cf. Burlington N. & Santa Fe Ry. v. White*, 548 U.S. 53, 54 (2006) (courts “presume[] that, where words differ as they do here, Congress has acted intentionally and purposely”). Indeed, it would be especially odd for EPA to establish a general rule (requiring states to “assemble and evaluate” data) and then craft an exception to that rule using different regulatory language (allowing states “to not use” data) when it could have done so explicitly by using parallel language. Further, if § 130.7(b)(6)(iii) was meant to be as narrow as the plaintiffs suggest, EPA would presumably have suggested some limitations in the text beyond the requirement that states supply a “rationale” for invoking it.

The better reading of §§ 130.7(b)(5) and (b)(6)(iii) is therefore that § 130.7(b)(5) requires a state to take the preliminary step of “assembl[ing] and evaluat[ing] data” before deciding whether to “use” or “to not use” the data to make an impairment determination under § 130.7(b)(6)(iii). *See Leavitt*, 488 F.3d at 913. And the decision to invoke § 130.7(b)(6)(iii) requires only a logical “rationale,” which EPA may accept or reject in its discretion. *See Ctr. for Biological Diversity*, 90 F. Supp. 3d at 1212.

Under that interpretation, DEQ met its obligation to “assemble and evaluate” the plaintiffs’ data. *See* EPA0054724–5073 (listing comments to draft 2016 report and DEQ’s responses); EPA0023208–616, EPA0026291, EPA0026310–11, EPA0026678 (listing comments to draft 2014 report and DEQ’s responses). In response to Shenandoah Riverkeeper’s expert report, DEQ explained that “anecdotal reports” of algal growths were potentially over-inclusive and had to be confirmed through “objective monitoring data” to ensure that impairment decisions remained “unbiased and defensible.” EPA0023262. DEQ explained that it is “difficult for even

the well-trained eye” to differentiate between healthy forms of algae and nuisance algae—both of which can snare fishing lines, clog boat propellers, and produce unpleasant odors in certain circumstances. EPA0023264. And this inherent difficulty is magnified in the context of citizen complaints because some citizens may not “have a full understanding” of how much and what kinds of algae are healthy and natural. *Id.* DEQ made clear that it “values the information gathered by its citizen monitors” and does not “reject[] citizen data wholesale.” EPA0023263. But, even so, citizen-generated data must undergo “the same scrutiny as DEQ-collected data,” and DEQ itself generally only uses visual assessments “to trigger an investigation” and not to “mak[e] a determination of impairment.” *Id.* Because the “information received from concerned citizens was largely anecdotal” and did not meet Virginia’s criteria for “Level III data,” DEQ chose not to rely on it to make an impairment determination. EPA0028930.

Following DEQ’s evaluation, “EPA conducted its own detailed analysis of the Plaintiffs’ data and information” and “shar[ed]” that analysis “with DEQ.” Pls.’ Br. at 15 (citing EPA0022597–3030). This “detailed analysis” prompted a “discussion between the two agencies” about the plaintiffs’ data, *id.*, and ultimately led DEQ to use the data to classify certain segments of the Shenandoah River as Category 3C, *id.* at 15–16. This record of collecting, responding to, analyzing, discussing, and acting on the plaintiffs’ data clearly establishes that DEQ “assembled and evaluated” that data as required by 40 C.F.R. § 130.7(b)(5).

EPA also reasonably accepted DEQ’s “rationale . . . to not use” citizen-generated data to make an impairment determination under 40 C.F.R. § 130.7(b)(6)(iii). *See* EPA0023103–04. After reviewing DEQ’s draft 2014 report, EPA specifically “requested” that Virginia “provide[] information as to [its] decision not to use certain information provided by the Potomac/Shenandoah Riverkeepers during the public comment period.” EPA0023103. EPA

noted that the information included “a considerable amount of photographs of algal mats, citizen testimonials outlining concerns over algal growth, algal toxin lab data, and algal bottom cover measurements” and that the information was offered to support the commenters’ claim that the entirety of the Shenandoah River was impaired for recreational use. *Id.* In approving Virginia’s 2014 impaired waters list, EPA expressly “considered” this information and Virginia’s “explanations regarding [DEQ’s] evaluation of the . . . information and why [DEQ] decided not to list segments of [the Shenandoah River] as impaired based on the . . . information.”

EPA0023104. As EPA explained, DEQ had concluded “that the quantity of photographs, citizen testimonials, and algal data submitted . . . varied by segment, spatially and temporally throughout the Shenandoah River basin,” and did “not meet the State’s quality standards for use in determining . . . recreational use attainment status.” *Id.*

EPA found that this “record” made “clear” that DEQ “evaluated the relevant information submitted” and “determined that there was insufficient quality data and information to determine attainment.” EPA0023105. Yet EPA did not endorse every aspect of DEQ’s rationale for not using the plaintiffs’ data. Although EPA recognized that states have “discretion to weigh data quality considerations when making attainment decisions,” it noted that the “lack of a State-approved [Quality Assurance Project Plan] by itself” could “not be used to summarily reject data or assume that data is of low quality regardless of the actual quality controls that were employed.” EPA0023106. Thus, while EPA was persuaded by the specific shortcomings identified by DEQ, it explicitly rejected a bright-line rule that would categorically ignore certain kinds of citizen data without first evaluating its quality and relevance. *See Leavitt*, 488 F.3d at 913 (rejecting a “hard-line approach” that would automatically exclude certain kinds of data without “considering” it).

“EPA’s decision to accept [DEQ’s] rationale [for not using certain data] was informed by its technical expertise and experience in a complex scientific area and, as such, is entitled to great deference.” *Ctr. for Biological Diversity*, 90 F. Supp. 3d at 1212. Because the plaintiffs have not provided a convincing reason to second-guess EPA’s expertise, the Court concludes that EPA reasonably accepted DEQ’s evaluation of the plaintiffs’ data and DEQ’s rationale for not using the data to identify any impaired segments of the Shenandoah River.<sup>7</sup>

The Eleventh Circuit’s decision in *Leavitt*, on which the plaintiffs rely, is consistent with this conclusion. There, the agency categorically ignored all data collected before a certain date without even “considering” the data’s quality or reliability. *Leavitt*, 488 F.3d at 913. But neither DEQ nor EPA relied on such a blanket exclusion here. *See* EPA0023105–06. Although DEQ explained its longstanding position of using only “Level III” data to make an impairment determination, it also provided comments explaining why the data submitted by the plaintiffs was problematic. *See, e.g.*, EPA0023262–64, EPA0028930. In turn, EPA’s approval—which is what matters here—emphasized that DEQ could not categorically ignore citizen-generated photographs and testimonials; it rested solely on the specific shortcomings identified by DEQ. *See* EPA0023104–05.

The plaintiffs note that EPA’s own non-binding guidance contemplates the use of citizen photographs and testimonials to make attainment decisions under narrative criteria. *See, e.g.*, Pls.’ Br. at 34 (quoting EPA0016994). True enough. But that same guidance goes on to describe the approach favored by DEQ: the use of numeric “translations” of narrative criteria “in

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<sup>7</sup> Because the Court finds that EPA reasonably accepted Virginia’s rationale for not using the plaintiffs’ data, it does not consider VAMWA’s alternative argument that it did “use” the data within the meaning of § 130.7(b)(6) by relying on it to prioritize certain segments for follow-up monitoring. *See* VAMWA’s Br. at 35.

combination with [other] measurements” to determine impairment. EPA0016994. By providing “examples” of various listing approaches, EPA “illustrate[d] how *some* States assess their waters pending the adoption of numeric nutrient criteria,” but it did not “endorse one method over another.” EPA0016995 (emphasis added). Indeed, EPA stressed that “the appropriateness of a particular method will depend on [a] variety of fact-specific circumstances.” *Id.* Here, based on the circumstances, DEQ “communicated its rationale for not relying on the [plaintiffs’] data to EPA,” and “EPA considered the rationale and deemed it reasonable.” *Ctr. for Biological Diversity*, 90 F. Supp. 3d at 1211. “The plain language of EPA’s regulations”—and guidance—“require[] nothing more.” *Id.*

### **C. The Plaintiffs’ Substantive Challenges**

The plaintiffs’ substantive challenges fare no better. They argue that three aspects of EPA’s reasoning are contrary to the CWA and Virginia regulations, arbitrary and capricious, or both. *See id.* at 26–34. The Court will address each in turn.

#### *1. The Complex and Subjective Nature of the Applicable Water-Quality Criteria*

The plaintiffs first challenge EPA’s reliance on the “complex” and “subjective” nature of Virginia’s narrative water-quality criteria. *See* Pls.’ Br. at 26–27, 33–34. But this challenge attacks a straw man. The plaintiffs assume that EPA used the “complex” and “subjective” nature of Virginia’s narrative standard as an excuse not to apply it. But EPA did apply Virginia’s narrative standard. *See* EPA0023105 (“Virginia’s record is clear that it evaluated the relevant information submitted in light of the water quality criterion language[.]”); EPA0055922–23 (DEQ classified seven assessment units as Category 3C “in light of the nature of the applicable water quality standard”). It simply concluded that certain aspects of that standard required DEQ to collect more information before identifying any segments of the Shenandoah River as

impaired under it. *See* EPA0055923.<sup>8</sup> As EPA explained, Virginia’s narrative standard includes a subjective component that relies on the perceptions and experiences of individual river users. EPA0023104; *see also* 9 Va. Admin. Code § 25-260-20.A (requiring state to determine whether algae “interfere[s]” with recreational use and is “undesirable” or a “nuisance”). The plaintiffs provided ample evidence that some users found the nature and extent of algae cover unsightly and odorous. But it was not evident to DEQ or EPA that these testimonials represented the views of river users as a whole. *See* EPA0023104 (because the narrative water-quality criteria “includes a subjective component based on the perception of river users,” it is “challenging to identify impairments in a manner that is consistently repeatable”).

As EPA explained in more detail when approving Virginia’s 2012 list, “EPA generally agrees that the views of users of a waterbody may be considered in determining whether the aesthetic enjoyment of the waterbody has been so impaired as to interfere with a designated recreational use.” EPA0003782–83. But “[d]ifferent individuals . . . may have different tolerance levels for the presence of excess algal growth when engaged in recreational activities,” and “different individuals may consider different amounts of algae as interfering with their use and enjoyment of the River or as presenting a nuisance.” EPA0003783. Because individuals might disagree about the appropriate level of algae, and how algae impacts their experience and uses of the river, it was reasonable for DEQ and EPA to capture a more complete picture of river users’ impressions before identifying certain segments of the Shenandoah River as impaired. *See* EPA0003783 (explaining that over 370,000 people live near or use the Shenandoah River and

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<sup>8</sup> Although EPA referred both to “complexity” and “subject[ivity]” in 2016, the reference to complexity did not add anything substantive to EPA’s analysis. It was simply a description of EPA’s previous analysis in 2014, which focused exclusively on subjectivity concerns and limitations with the available data. *See* EPA0055923, EPA0023104.



expressing uncertainty over whether the 80 testimonials submitted by Shenandoah Riverkeeper in 2012 represented the views of river users as a whole).<sup>9</sup>

Two basic facts about algae made it particularly important for DEQ and EPA to obtain a complete and accurate measure of river users' experiences before identifying segments of the Shenandoah as impaired. First, the presence of some algae is natural in a healthy river. *See* EPA0023264. Second, algal blooms come and go, making it difficult to assess the nature and extent of algal growth over time. *See* EPA0058480 (“The lengths of time that any problem algae growths exist and the locations where they are found are extremely hard to predict, because of changes in stream flow, temperature, sunlight, and any number of other factors can cause accumulations to form and be dispersed.”); Pls.’ Br. at 28 (“[V]ariability is inherent in the issue” of algal growth because “algae are living species and the Shenandoah River is a living and varied environment.”); Pls.’ Br. at 33 (“[A]lgal blooms are not uniform or stationary over a single growing season[.]”). Because some amount of algae is healthy, and even excessive blooms might dissipate or shift over time, it was reasonable for EPA to defer to DEQ’s decision to collect more information before identifying segments of the Shenandoah as impaired based on potentially unrepresentative anecdotal reports.

## 2. *The Variability and Limitations of Available Algae Data*

The plaintiffs next attack EPA’s reliance on the limitations of available algae data. But this argument, too, is unpersuasive. As already discussed, EPA reasonably deferred to DEQ’s decision “to not use” the plaintiffs’ data to make an impairment determination. *See supra* III.B. And, as discussed, algae is healthy in certain quantities and inherently variable, making it critical

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<sup>9</sup> Although EPA did not repeat these observations in as much detail in its 2014 and 2016 approvals, EPA’s “path may be reasonably discerned” from its prior discussions of the same issue. *State Farm*, 463 U.S. at 43 (internal quotation marks omitted).

to obtain a complete and accurate picture of the scope and duration of algal growth before making conclusive impairment determinations. *See supra* III.C.1.

The plaintiffs submitted extensive comments to Virginia’s draft 2016 report, but DEQ and EPA acted reasonably in deciding that those comments were insufficient to support an impairment determination. For many assessment units, DEQ received few complaints, many of which were anecdotal and lacking in specificity. *See* EPA0022594 (map of citizen comments showing large stretches with few complaints); *see also, e.g.*, EPA0048181 (lacking specific spatial and temporal information); EPA0048249 (same); EPA0048259 (same). And it was not clear to DEQ whether each citizen commenter could distinguish between algae and other aquatic plants, or between harmful and safe kinds of algae. *See* EPA0023264–65. Further, many of the photographs submitted were of limited use because “it is difficult to distinguish in aerial photographs” between “potentially impairing algal growth” and “beneficial submerged aquatic vegetation.” EPA0020532 (discussing aerial photographs submitted in connection with Virginia’s 2012 list). In addition, this data had to be weighed against the results of DEQ’s own monitoring efforts, which revealed “little to no algae throughout the 2016 growing season” in many segments of the Shenandoah and only “ephemeral” algae “dependent on multiple variables” in the remaining segments. EPA0058720.

Despite these limitations, DEQ found the plaintiffs’ data useful for classifying certain assessment units as Category 3C. *See* EPA0023104, EPA0058720. For these units, Shenandoah Riverkeeper “submitted multiple types of information (photos, complaints and algal bottom cover data) in a manner that also provided spatial and temporal information.” EPA0023104. While this more comprehensive data was still “not of sufficient quality for use in the State’s determinations for whether a water should be in Category 5,” it justified prioritizing certain

segments of the Shenandoah for follow-up monitoring “so that additional data and information of sufficient quality c[ould] be collected to determine if th[ose] waters are impaired.” *Id.*

Given the variable nature of algal growth and the limitations of the citizen data submitted to DEQ, EPA acted reasonably in “defer[ring] to [Virginia’s] judgement [sic] that additional data and information collection [wa]s necessary before it c[ould] resolve the attainment status” of the Shenandoah River “in light of the specific language of Virginia’s narrative criterion.” *Id.*

The plaintiffs’ arguments to the contrary are unpersuasive. They argue that Virginia’s water quality standards do not impose any “uniformity” requirement, that DEQ has not adopted any data protocols for the kinds of evidence the plaintiffs submitted, and that variability is inherent in algal growth and cannot be used against them. *See* Pls.’ Br. at 28. But these arguments miss the mark. First, neither DEQ nor EPA has ever claimed that Virginia’s narrative standard itself imposes a uniformity requirement. They have merely insisted that determinations under that standard be made carefully using reliable and scientifically valid data. Second, EPA made clear that its approval did not rest on the plaintiffs’ failure to comply with DEQ protocols and that DEQ could not use the absence of quality-assurance protocols for photographic or testimonial data as a basis for excluding such data. EPA0023105–06. Finally, variability may be inherent in algal growth, but that does not make it irrelevant, and the plaintiffs do not explain how DEQ should address it, short of designating the entire Shenandoah River as impaired based on individual instances of algal blooms at certain times and in certain places. *See* Pls.’ Br. at 1–2, 28–29. EPA and DEQ reasonably rejected this broad measure in favor of determining impairment on a segment-by-segment basis.

### 3. *Virginia’s Plans to Develop a Numerical Impairment Threshold for Algae*

Lastly, the plaintiffs argue that EPA was wrong to rely on Virginia’s commitments to develop numerical thresholds for assessing algae-related impairment in the future. These

commitments, however, played only a limited role in EPA’s analysis. To be sure, EPA “acknowledge[d] the efforts” of DEQ “towards meeting” Virginia’s “algae-related commitments” and noted its expectation that DEQ would “finalize” its “algae field methodology” and numerical “impairment threshold” in the near future. EPA0055924. But these observations did not serve as the basis for EPA’s approval. Rather, EPA’s approval rested on its finding that DEQ’s “decision to collect additional data before making attainment decisions . . . regarding the impacts of algae on recreational use” was “reasonable.” *Id.* That DEQ had taken concrete steps toward developing collection and monitoring methodology may have provided further confirmation that DEQ’s need for additional information was genuine, but EPA did not rely on those steps, or their success, when it concluded that the plaintiffs’ data was insufficient to make an impairment determination in 2014, *see* EPA0023104, or when it concluded in 2016 that the additional photos submitted by the plaintiffs did not change that result, *see* EPA0055923–24.

Once EPA’s approval is understood not to rely DEQ’s future plans, or their success, the plaintiffs’ remaining arguments largely fall away. Even so, the Court will briefly address them. *First*, the plaintiffs argue that it was disingenuous for EPA to rely on DEQ’s plans because DEQ had downgraded its “commitments” to “goals” and was already behind schedule in attaining them. Pls.’ Br. at 29. But the Court cannot conclude that DEQ’s delay and modified expectations revealed that its purported need to collect more information was pretextual. Courts must presume that public officials act in good faith when discharging their official duties, absent clear evidence to the contrary. *People for the Ethical Treatment of Animals v. United States Dep’t of Agric. & Animal & Plant Health Inspection Serv.*, No. 18-5074, 2019 WL 1212181, at \*4 (D.C. Cir. Mar. 15, 2019). And, at this stage, there is insufficient evidence in the record to

establish that DEQ's commitments were made in bad faith or as a pretext for avoiding its statutory and regulatory obligations.

*Second*, the plaintiffs raise a series of substantive challenges to the methodology DEQ had developed and described in its Draft 2018 Guidance, available at the time of EPA's approval. *See* Pls.' Br. at 31–33. But EPA does not approve states' water quality assessment methodologies; it approves only the impaired waters lists that result from those methodologies. *See* EPA0053987. Thus, it was reasonable for EPA to wait until the methodologies had been applied before considering their utility. That is particularly true considering that, when EPA issued its approval, DEQ was still in the process of receiving and weighing comments to its proposed methodology and might well have refined its approach based on input from the plaintiffs and others. *See* EPA0055924.

*Finally*, the plaintiffs accuse Virginia of developing an impairment threshold “as a means to avoid applying the state's existing water quality standards” altogether. Pls.' Reply at 8; *see also id.* at 13–14. The record reveals otherwise. EPA made clear that it accepted DEQ's decision to gather additional information so that DEQ could determine “the attainment status of [the Shenandoah River] *in light of the specific language of Virginia's narrative criterion.*” EPA0023104 (emphasis added). It never suggested that DEQ could replace that language with a standard of its own choosing. Indeed, far from evading applicable regulations, DEQ's data-collection and methodological-development efforts flow directly from EPA regulations and guidance. EPA regulations provide that a “State's water monitoring program shall include collection and analysis of physical, chemical and biological data and quality assurance and control programs to assure scientifically valid data.” 40 C.F.R. § 130.4(b). And EPA has long approved of states using numeric thresholds “as quantitative ‘translations’ of their narrative

criteria.” EPA0016994. Such “translations” are not an illegitimate effort to evade or replace narrative criteria but rather a means of effectively applying and “implementing” them. *See id.*; *cf.* 40 C.F.R. § 122.44(d)(1)(vi) (outlining methods for translating narrative water-quality criteria into numeric permit conditions).

In short, because EPA’s approval did not rely on the success or specifics of Virginia’s ongoing efforts or sanction a scheme by DEQ to circumvent Virginia’s narrative water quality criteria, its approval was neither arbitrary and capricious nor contrary to the CWA.

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At bottom, the plaintiffs accuse DEQ and EPA of the old politician’s tactic: answer the question you wish you were asked, not the one you actually were. Instead of applying Virginia’s existing narrative criteria, the plaintiffs argue, DEQ and EPA engaged in a sleight of hand and agreed to delay deciding impairment until DEQ could develop its own, more convenient numerical criteria. *See, e.g.,* Pls.’ Reply at 1–2.

If that were true, the plaintiffs would of course prevail. APA review may be “indulgent,” *Chem. Mfrs. Ass’n*, 28 F.3d at 1263, but it does not give an agency license to replace the factors made relevant by statute or regulation with factors of its own choosing, *see Agape Church*, 738 F.3d at 410. “[W]here EPA simply ignores some applicable water quality standards by, for example, failing to consider certain designated uses or ignoring particular water quality criteria, it acts outside the scope of its legal and regulatory authority, and must be rebuked.” *Anacostia Riverkeeper*, 798 F. Supp. 2d at 238.

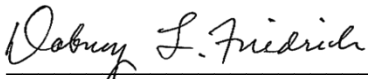
But that is not what happened here. DEQ and EPA did not ignore Virginia’s narrative criteria or fail to consider recreational use. They simply weighed the available data “in light of” the relevant standards and found it wanting. EPA0023104–05, EPA0055922–23. Further,

DEQ's plan to develop numeric "translations" to help "implement[]" Virginia's narrative criteria, EPA0016994, was not an unlawful attempt to circumvent existing standards but rather a conscious effort to apply them.

Given the mixed and potentially unreliable picture of algal growth before DEQ and EPA, EPA acted reasonably in accepting DEQ's decision to collect more information before making a conclusive impairment determination under the relevant standard. That scientific judgment is entitled to significant deference, *see Am. Trucking Ass'ns*, 724 F.3d at 249; *Baltimore Gas & Elec. Co.*, 462 U.S. at 103, and the record demonstrates "a rational connection between the facts found and the choice made," *State Farm*, 463 U.S. at 43 (internal quotation marks omitted). The APA requires nothing more.

### CONCLUSION

For the foregoing reasons, the Court denies the plaintiffs' motion for summary judgment, grants VAMWA's cross-motion for summary judgment, and grants EPA's cross-motion for summary judgment. A separate order accompanies this memorandum opinion.

  
DABNEY L. FRIEDRICH  
United States District Judge

March 31, 2019