**IMPORTANT QUOTES FROM THE UNITED STATES COURT OF APPEALS FOR THE FIRST CIRCUIT**

**CITY OF TAUNTON V. EPA CASE CASE NO. 16-2280**

(For full decision see: <https://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/A568248B44D1C63785258053005AEDD0/$File/Opinion%207.9.2018%20(46%20pages).pdf>)

After considering all of the City's challenges, both procedural and substantive in nature, we uphold the EPA's permitting decision.

NPDES permits "must control all pollutants or pollutant parameters" that the EPA "determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i). The EPA has interpreted "reasonable potential" to mean "some degree of certainty greater than a mere possibility." In re Upper Blackstone Water Pollution Abatement Dist., 14 E.A.D. 577, 599 n.29 (EAB 2010). "Narrative" water quality criteria are qualitative, rather than numerical, in nature. See 40 C.F.R. §§ 131.3(b), 131.11 (b).

Massachusetts classifies the Taunton Estuary and the eastern portion of Mount Hope Bay as "Class SB" waters. Per state regulations, Class SB waters "are designated as a habitat for fish, other aquatic life and wildlife . . . and for primary and secondary contact recreation." 314 Mass. Code Regs. § 4.05(4)(b). They "shall have consistently good aesthetic value." Id. Class SB waters must also meet the numeric water quality criterion of a minimum of 5.0 mg/l of dissolved oxygen. Id. § 4.05(4)(b)(1). So too must they satisfy the following narrative water quality criterion:

Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses . . . . Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication . . . shall be provided with the most appropriate treatment . . . to remove such nutrients to ensure protection of existing and designated uses. Id. §4.05(5)(c).

When issuing NDPES permits for states that employ narrative criteria, the EPA must translate those criteria into a "calculated numeric water quality criterion" that the EPA "demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use." 40 C.F.R. § 122.44(d)(1)(vi)(A). The EPA may arrive at that numerical criterion by using "a proposed State criterion, or an explicit State policy or regulation interpreting [the State's] narrative water quality criterion, supplemented with other relevant information . . . ." Id. Massachusetts has not prescribed specific methodologies for deriving numeric nitrogen limitations that correspond to its narrative criteria. It therefore fell to the EPA to do so here.

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explicit State policy or regulation interpreting [the State's] narrative water quality criterion, supplemented with other relevant information . . . ." Id. Massachusetts has not prescribed specific methodologies for deriving numeric nitrogen limitations that correspond to its narrative criteria. It therefore fell to the EPA to do so here. The EPA looked to an interim report prepared for the Massachusetts Department of Environmental Protection (MassDEP) known as the Critical Indicators Report." See Massachusetts Estuaries Project, Site-Specific Nitrogen thresholds for Southeastern Massachusetts Embayments: Critical Indicators, July 21, 2003, <https://yosemite.epa.gov/OA/EAB_WEB_Docket.nsf/Verity%20View/DE93FF445FFADF1285257527005AD4A9/$File/Memorandum%20in%20Opposition%20...89.pdf> nitroest.pdf (last visited June 14, 2018). As the EPA explained in the response to comments, "[w]hile MassDEP has not adopted the Critical Indicators Report as a specific policy, it has afforded the document technical and scientific weight, [and] has explicitly relied on the report" in other regulatory contexts.

The purpose of that report is to provide a "translator" between Massachusetts's narrative water quality standard and corresponding numeric nitrogen thresholds that would ensure compliance with those standards. Id. at 2. To that end, the Case: 16-2280 Document: 00117311567 Page: 26 Date Filed: 07/09/2018 Entry ID: 6182465 -27- report listed various criteria, or "indicators," to guide assessments of the present health of a given body of water, including the amount of oxygen, nitrogen, and chlorophyll present in that body. 12 Id. at 11. In this sense, those indicators" serve as factors to consider when assessing how healthy a body of water is. The interim report also provided what it describes as "straw man" threshold levels -- to be "further refined with the collection of additional data and modeling." Id. at 3. For example, per those thresholds, Class SB waters are not impaired when, among other things, "oxygen levels are generally not less than 5.0 mg/l," chlorophyll-a levels are between 3-5 μg/l, and nitrogen levels are between 0.39-0.50 mg/l. Id. at 22. "Moderately impaired" SB waters have oxygen levels that "generally do not fall below" 4.0 mg/l, chlorophyll levels that may reach 10 μg/l, and nitrogen concentrations above roughly 0.5 mg/l. Class SB waters are "significantly impaired," according to the report, at around 0.6-0.7 mg/l of nitrogen. Id.

The EPA then looked to data from a three-year water quality monitoring study that the School for Marine Sciences and Technology at University of Massachusetts Dartmouth (SMAST) had carried out. The study involved taking monthly water samples from 22 sites across the Taunton Estuary and Mount Hope Bay from 2004 to 2006. The study revealed that all of these sites were suffering from excessive algae growth; each site had an average chlorophylla concentration of over 10 μg/l during the study's three-year period. All 22 monitoring stations also had an average dissolved oxygen concentration below 5.0 mg/l during that period. And in the case of 16 monitoring stations, the average nitrogen concentration exceeded .5 mg/l -- where the Critical Indicators Report drew the line for "clearly impaired" waters. Those monitoring stations located in the Taunton River tended to have the highest nitrogen concentrations. The monitoring station closest to the Facility's discharge point showed a particularly high nitrogen concentration -- ranging from 0.66 to 0.99 mg/l during the course of the study.

The EPA also considered data from another monitoring station in Mount Hope Bay, operated by the Narragansett Bay Water Quality Network. That data showed that the dissolved oxygen Case: 16-2280 Document: 00117311567 Page: 28 Date Filed: 07/09/2018 Entry ID: 6182465

-29- concentration at that site fell below 4.8 mg/l on multiple occasions in 2005 and 2006. On two such occasions, the dissolved oxygen concentration remained below 2.9 mg/l for two days,

resulting in "hypoxic conditions," or "levels of dissolved oxygen below what is needed by aquatic organisms to breathe," Upper Blackstone, 690 F.3d at 12. The data also showed multiple events" of chlorophyll-a concentrations exceeding 20 μg/l. Moreover, the data from the monitoring station indicated that the site continued to suffer from elevated chlorophyll-a concentrations and persistent dissolved oxygen concentrations below 5 mg/l in 2010. The EPA then applied the SMAST and Mount Hope Bay data to the Critical Indicators Report. This led it to conclude that "cultural eutrophication due to nitrogen overenrichment in the Taunton River Estuary and Mount Hope Bay has reached the level of a violation of both Massachusetts and Rhode Island water quality standards for nutrients and aesthetics, and has also resulted in violations of the numeric [dissolved oxygen] standards." According to the City, this conclusion was the product of various errors.

We agree that the EPA did not use the Critical Indicators Report improperly. The City's objections to the EPA's reliance on the "straw man" thresholds in the Critical Indicators Report are ultimately inapposite, as the EPA relied not on those thresholds, but rather on the Report's indicators in reaching its conclusion about nutrient impairment. Of course, had the EPA been able to rely on threshold levels not subject to future refinement, then its analysis may have benefitted from greater scientific certainty. But, it was not required to delay its decision until such information became available, and its conclusions are not invalid because they are the product of employing the indicators set out in the Critical Indicators Report to analyze the SMAST data. "As in many science-based policymaking contexts, under the CWA the EPA is required to exercise its judgment even in the face of some scientific uncertainty." Upper Blackstone, 690 F.3d at 23. Using those indicators to determine that the Taunton Estuary was nutrient impaired for purposes of Massachusetts's narrative criteria, see 314 Mass. Code Regs. § 4.05(4)(b), comported with the regulations that govern translating narrative criteria in the absence of an official state-sanctioned methodology, see 40 C.F.R. § 122.44(d)(1)(vi)(A), and was not arbitrary or capricious.

But, as the EAB correctly determined, the EPA did not need to show causation -- for example, through a statistical regression analysis -- to support its conclusion that the Taunton Estuary was nutrient impaired. Rather, the EPA needed only to conclude that the further discharge of nitrogen had the "reasonable potential to cause, or contribute to an excursion above any State water standard." 40 C.F.R. § 122.44(d)(1)(i) (emphasis added see also 314 Mass. Code Regs. § 4.05(4)(b)(1) (establishing the numeric criterion that Class SB waters have a minimum of 5.0 mg/l of dissolved oxygen), (5)(c) (establishing the narrative criterion for Class SB waters that "[u]nless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses"). We further note that the words "contribute to" also indicate that nitrogen need not be the sole cause of any potential violation of a state standard, further undercutting the suggestion that the EPA needed to prove causation. Moreover, in upholding the "reasonable potential" determination here, the EAB observed that under the NPDES regulations, the permitting authority has a "significant amount of flexibility in determining whether a particular discharge has a reasonable potential to cause an excursion above a water quality criterion." See also National Pollutant Discharge Elimination System, 54 Fed. Reg. 23,868, 23,873 (June 2, 1989). The City's arguments thus miss their mark; it is incorrect that the EPA needed to show a causal relationship between high concentrations of nitrogen and low concentrations of dissolved oxygen. The absence of an analysis of this sort from the EPA's "reasonable potential" determination, therefore, cannot have made that determination arbitrary or capricious.

To calculate that total nitrogen threshold, the EPA -- employing what is known as a "reference-based" approach -- looked to one of the monitoring stations in the SMAST study, MHB16, that "consistently met dissolved oxygen standards." As the EPA detailed in the response to comments, MHB16 was, among all of the unimpaired sites in the SMAST study, the site with the highest nitrogen concentration. The nitrogen concentration at MHB16, 0.45 mg/l, also fell within the range that the Critical Indicators Report held out as consistent with unimpaired conditions (0.35-0.5 mg/l). The EPA further explained in the fact sheet that this nitrogen threshold was consistent with "total nitrogen concentrations previously found to be protective of [acceptable dissolved oxygen levels] in other southeastern Massachusetts estuaries [which] have ranged between 0.35 and 0.55 mg/l." Mindful that all of the sites in the SMAST study with a nitrogen concentration above 0.45 mg/l suffered from nutrient impairment, the EPA explained in the response to comments that "there is simply no evidence that a higher target [total nitrogen] concentration would be sufficiently protective in the Taunton River Estuary." The EPA therefore selected 0.45 mg/l as the target nitrogen concentration that would serve as the basis for the effluent limitations the permit would impose on the Facility.

Our standard of review, once more, does not deputize us to second-guess the EPA's choice of data, so long as the agency acts "with a reasonable basis" in selecting and applying it. Upper Blackstone, 690 F.3d at 26. And here, as the EAB explained, the agency had good reason for relying on the SMAST data, which drew from 22 different monitoring stations: the more recent studies -- such as that of the Narragansett Bay Water Quality Network -- were "limited in terms of location and parameters monitored and thus were insufficient to form the basis for an alternative analysis of the Taunton Estuary." Moreover, the EPA did not ignore that recent data, but rather found that it was "consistent with [its] analysis of the SMAST data and indicated continued adverse water quality impacts."

Further, we have recognized that "neither the CWA nor EPA regulations permit the EPA to delay issuance of a new permit indefinitely until better science can be developed, even where there is some uncertainty in the existing data." Id. at 22; see also Massachusetts v. EPA, 549 U.S. 497, 534 (2007) (explaining that the EPA cannot avoid its statutory obligation to regulate greenhouse gases by "noting the uncertainty surrounding various features of climate change" when "sufficient information exists to make an endangerment finding"). Thus, we think that the EPA was well-entitled to use the SMAST data in the manner that it did here.

Having considered all of the City's protestations to the contrary, we find that in calculating the Permit's effluent limit, the EPA neither relied on impermissible factors nor failed to consider a crucial aspect of the problem, and that its explanation for that limit neither flaunted the evidence in the record nor is "so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Motor Vehicle Mfrs. Ass'n, 463 U.S. at 43. As the EPA's detailed explanation of how it calculated the permit's nitrogen limit of 3.0 mg/l reveals, that limit falls within the "zone of reasonableness," and so we do not see fit to second-guess it. See Upper Blackstone, 690 F.3d at 28; see also Solite Corp. v. EPA, 952 F.2d 473, 488 (D.C. Cir. 1991). As a result, we leave undisturbed this well-reasoned exercise of the EPA's delegated authority to administer the CWA.

None of the City's procedural or substantive challenges having merit, the decision of the EAB is affirmed.