No. 12-797

In the Supreme Court of the United States

UPPER BLACKSTONE WATER POLLUTION ABATEMENT DISTRICT, PETITIONER

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FIRST CIRCUIT

BRIEF FOR THE RESPONDENT IN OPPOSITION

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QUESTION PRESENTED

Whether the Environmental Protection Agency acted arbitrarily or capriciously in setting a phosphorus discharge limit of 0.1 milligrams per liter during summer months in the National Pollutant Discharge Elimination System permit issued to petitioner.

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OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a-53a) is reported at 690 F.3d 9. The opinion of the Environmental Appeals Board (Pet. App. 56a-196a) is not reported.

JURISDICTION

The judgment of the court of appeals (Pet. App. 54a-55a) was entered on August 3, 2012. A petition for rehearing was denied on September 25, 2012 (Pet. App. 197a-198a). The petition for a writ of certiorari was filed on December 21, 2012. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

STATEMENT

1. The Clean Water Act (CWA or Act), 33 U.S.C. 1251 *et seq.*, prohibits the discharge of pollutants from a

point source into the waters of the United States unless done in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. 33 U.S.C. 1311(a), 1362(12); see *Decker* v. *Northwest Envtl. Def. Ctr.*, No. 11-338 (Mar. 20, 2013), slip op. 2. The CWA authorizes the Environmental Protection Agency (EPA), or a State with a program approved by the EPA, to issue NPDES permits.[1] See 33 U.S.C. 1342(a). The Act requires that such permits include effluent limits "necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations * * * or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to [the CWA]." 33 U.S.C. 1311(b)(1)(C); see 40 C.F.R. 122.4(d); *Arkansas* v. *Oklahoma*, 503 U.S. 91, 110 (1992).

The CWA gives States the primary responsibility for adopting water quality standards for the waters within their borders. See 33 U.S.C. 1313(a)-(c). Water quality standards consist of, *inter alia*, (1) designated "uses" of the water, such as propagation of fish and wildlife, recreation, or use as a public water supply; and (2) "criteria" specifying the amounts of various pollutants that may be present in the waters without impairing the designated uses. See 33 U.S.C. 1313(c)(2)(A); see also 40 C.F.R. 130.3, 130.10(d)(4), 131.6, 131.10, 131.11. States may establish either numeric (quantitative) or narrative (qualitative) water quality criteria, or both. See 40 C.F.R. 131.3(b), 131.11(b).

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[1] Because Massachusetts has not obtained NPDES program authorization, the EPA's Region 1 office issues NPDES permits to point-source dischargers in Massachusetts. See *Rhode Island* v. *EPA*, 378 F.3d 19, 21 (1st Cir. 2004).

The EPA's longstanding regulations lay out the process by which the agency's permit writers determine whether and to what extent limitations on the discharge of certain pollutants are necessary to achieve state water quality standards. See 40 C.F.R. 122.44(d). Permit writers are first required to determine whether pollutants "are or may be discharged [from a point source] at a level which will cause, have the reasonable potential to cause, or contribute to" an exceedance of the narrative or numeric criteria set forth in state water quality standards. 40 C.F.R. 122.44(d)(1)(i). If a discharge of a pollutant will have such an effect, "the permit must contain effluent limits for that pollutant." 40 C.F.R. 122.44(d)(1)(iii).

Where state water quality standards are based upon narrative (rather than numeric) criteria, the regulations prescribe three options that the permit writer may use to determine the appropriate effluent limitations for particular discharge sources. 40 C.F.R. 122.44(d)(1)(vi)(A)-(C). As relevant here, one of the three options—Option (B)—authorizes the permitting authority to "[e]stablish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under section 304(a) of the CWA, supplemented where necessary by other relevant information." 40 C.F.R. 122.44(d)(1)(vi)(B). The Act requires the EPA to publish (and periodically revise) "criteria for water quality accurately reflecting the latest scientific knowledge" concerning, *inter alia*, "the effects of pollutants on biological community diversity, productivity, and stability." 33 U.S.C. 1314(a)(1).

2. At issue in this case is an NPDES permit issued in 2008 governing discharges from a wastewater treatment plant in Millbury, Massachusetts. The plant is operated

by petitioner Upper Blackstone Water Pollution Abatement District. The plant discharges into the Blackstone River—an interstate freshwater river that flows south from its headwaters in Worcester, Massachusetts, through Rhode Island, and ultimately into Narragansett Bay. Pet. App. 3a. Because of its location near the headwaters of the river and its large discharge (34 to 43 million gallons per day), the plant's effluent dominates the river during critical low-flow conditions. *Id.* at 16a-17a. The plant discharges treated domestic and industrial sewage containing pollutants such as fecal coliform, nitrogen, phosphorus, and aluminum. *Ibid.*; *id.* at 61a. The 2008 permit imposes effluent limitations on all of these pollutants, see Pet. C.A. Br. Addendum 112-115, but the petition for certiorari challenges only the limit on phosphorus, Pet. 4, 12-14.

a. Phosphorus acts as a nutrient that supports plant and algae growth. In unnaturally high concentrations, phosphorus can lead to a problem known as "cultural eutrophication," the impacts of which include excessive algae growth and significant alterations of dissolved oxygen levels. As algae populations bloom and die off in quick succession, their respiration and decomposition cycles deplete the amount of dissolved oxygen in the water. Without enough dissolved oxygen, fish and other aquatic life cannot survive. See Pet. App. 4a.

The Blackstone River has experienced severe phosphorus-driven cultural eutrophication in recent years, preventing the river from meeting Massachusetts's water quality standards.[2] Pet. App. 4a-5a, 13a-

[2] Rhode Island's water quality standards apply to the portion of the Blackstone River lying within Rhode Island. The phosphorus limit at issue is also necessary to meet Rhode Island's water quality standards, but discussion of the applicable Massachusetts water quality

14a. As relevant here, those standards prohibit nutrients in concentrations that would cause or contribute to impairment of existing or designated uses, which include providing a habitat for fish and other wildlife, swimming, fishing, boating, contact recreation, and good aesthetic value. 314 Mass. Code Regs. 4.05(3)(b) (LexisNexis 2013); Pet. App. 13a-14a. The river is also subject to minimum narrative criteria requiring that it be "free from pollutants in concentrations or combinations that * * * produce undesirable or nuisance species of aquatic life"; "free from pollutants in concentrations or combinations or from alterations that adversely affect the physical or chemical nature of the bottom, interfere with the propagation of fish or shellfish, or adversely affect populations of non-mobile or sessile benthic organisms"; "free from pollutants in concentrations that are toxic to humans, aquatic life or wildlife"; and "free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses." 314 Mass. Code Regs. 4.05(5)(a)-(c) and (e) (LexisNexis 2013); Pet. App. 13a-14a. Massachusetts has not established numeric phosphorus criteria applicable to the Blackstone River.

b. In 2001, the EPA issued an NPDES permit to petitioner setting an effluent limit on phosphorus of 0.75 milligrams per liter (mg/L). Pet. App. 17a. This limit was meant "to address low dissolved oxygen levels, but not" all aspects of cultural eutrophication in the Blackstone River, including algal biomass or other indicators of excessive plant growth. *Id.* at 47a. When it issued the 2001 permit, the EPA was "in the process of studying nutrient-related issues more closely in water sys-

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standards is sufficient for purposes of considering the certiorari petition.

tems around the country. * * * In conjunction with these ongoing efforts, EPA specifically noted during the 2001 permitting process that more stringent phosphorus limits might be necessary in future permits to address cultural eutrophication impacts in the Blackstone River." *Ibid.*; see Fact Sheet Accompanying 2008 Permit, Pet. C.A. Br. Addendum 138 (noting that, during the 2001 permitting process, the EPA advised petitioner that if problems with low dissolved oxygen levels and cultural eutrophication persisted, "more stringent phosphorus limits would need to be implemented").

c. When petitioner applied to renew its NPDES permit in 2005, the EPA determined that tightening of the phosphorus effluent limit was required. Based on more than 15 years of water quality data, the plant's phosphorus effluent data, site-specific studies and reports, and national EPA guidance, the EPA determined that petitioner's discharges will "cause, have the reasonable potential to cause, or contribute to" a violation of state water quality standards, and that the 0.75 mg/L limit in petitioner's 2001 permit was "inadequate for ensuring the water quality standards related to the control of eutrophication." Pet. App. 27a-28a (quoting 40 C.F.R. 122.44(d)(1)(i)). For example, the EPA considered data collected under low flow conditions in the Blackstone River that documented severe and continuing cultural eutrophication at times when petitioner's discharges—and thus in-stream phosphorus concentrations—were just above the 0.75 mg/L level set by petitioner's 2001 permit. See *id.* at 49a-50a. Based on this finding, the EPA was obligated to further limit phosphorus discharges. See 40 C.F.R. 122.44(d)(1).

In petitioner's new permit, which the EPA published in draft form in March 2007 and finalized in August 2008

after public notice and comment, Pet. App. 67a, the EPA set a phosphorus effluent limit of 0.1 mg/L for the summer months (April through October) and 1.0 mg/L for the rest of the year. *Id.* at 19a. In the absence of any applicable state numeric water quality criteria for phosphorus, the EPA arrived at the 0.1 mg/L limit by applying the method set out in 40 C.F.R. 122.44(d)(1)(vi)(B), which authorizes permit writers to establish effluent limits on a "case-by-case basis, using EPA's water quality criteria, published under [33 U.S.C. 1314(a)], supplemented where necessary by other relevant information." See Pet. App. 162a.

Among other sources of technical and scientific information, the EPA considered several guidance documents issued under 33 U.S.C. 1314(a) that set forth recommendations for in-stream total phosphorus concentrations that are sufficiently stringent to control cultural eutrophication and other adverse nutrient-related impacts. Pet. App. 48a-49a. The guidance documents recommended maximum in-stream concentrations of phosphorus ranging from 0.01 mg/L to 0.1 mg/L. *Id.* at 49a. The guidance document specific to the Blackstone River's ecoregion (Ecoregion XIV, which includes Massachusetts and Rhode Island) recommended a significantly lower maximum in-stream phosphorus concentration of 0.024 mg/L. *Ibid.* The EPA ultimately chose the least stringent recommended in-stream concentration within the range prescribed by the various guidance documents, concluding that the 0.1 mg/L phosphorus level recommended by the *Quality Criteria for Water 1986* (*Gold Book*) guidance document would be sufficiently stringent to control cultural eutrophication. Pet. App. 48a-49a, 163-164a. The EPA "also analyzed various site-specific phosphorus load data produced after 2001,"

id. at 49a, and considered the possibility of site-specific factors that might reduce the threat of phosphorus as a contributor to eutrophication, but the agency found no evidence suggesting that an in-stream target of higher than 0.1 mg/L would offer sufficient protection against cultural eutrophication. *Id.* at 167a-168a. Rather, the EPA noted that the presence of multiple downstream dams and the low velocity of the river might, if anything, exacerbate the impacts associated with phosphorus. Joint C.A. App. 1242-1243.

To achieve this 0.1 mg/L in-stream phosphorus concentration, the EPA determined that a 0.1 mg/L limit on petitioner's phosphorus discharges would be appropriate for the growing season of April through October. Pet. App. 49a n.27. This conclusion reflected available information regarding the size of petitioner's discharge and its location near the river's headwaters, which meant that wastewater from petitioner's plant dominated the flow of the Blackstone River during times of low flow in those months. *Ibid.*; see *id.* at 17a ("[Petitioner's] discharge represents approximately seventy percent of the total municipal wastewater flow into the Blackstone River, making it the dominant discharger of both nitrogen and phosphorus into the River's waters.").

3. The District appealed the 0.1 mg/L phosphorus effluent limit, along with several other permit conditions, to the EPA's highest adjudicative body, the Environmental Appeals Board (Board). In a comprehensive 106-page opinion, the Board upheld all aspects of the permit's effluent limitations, including the phosphorus limit. Pet. App. 56a-196a. The Board held that, "in referring to the criteria guidance in the Gold Book and Ecoregion XIV Criteria, [the EPA] followed [Section 122.44(d)(1)(vi)(B)'s] direction to use EPA criteria." *Id.*

at 164a. The Board noted that the EPA had "also considered whether site-specific data collected in 2003 would support a permit limit at 0.75 mg/[L], even though that limit would not fall within the" range recommended by the national and regional guidance documents, but that the agency had reasonably concluded that the higher phosphorus limit would not adequately control the effects of cultural eutrophication. *Id.* at 166a-168a. The Board further observed that petitioner had "not pointed to record evidence of another available, relevant method authorized under section 122.44(d)(1)(vi) that [the EPA] could have used to identify a numeric criterion for the Blackstone River." *Id.* at 164a.

4. Petitioner filed a petition for review of the permit, including the phosphorus limit. See 33 U.S.C. 1369(b). The court of appeals denied the petition and upheld the 2008 permit in all respects. Pet. App. 53a. Petitioner contended that the EPA had acted arbitrarily by setting the 0.1 mg/L phosphorus limit "because the EPA considered national guidance on phosphorus reduction, and other regional and area studies which * * * have no proven connection to the Blackstone River." *Id.* at 48a. The court rejected that argument, holding that the EPA "did not act irrationally by considering its national and regional phosphorus guidance criteria in addition to site-specific data" because the national and regional guidance provided important background information in recommending in-stream phosphorus concentrations that would be low enough to prevent cultural eutrophication. *Ibid.* The court also recognized that the EPA had considered relevant site-specific information alongside the national and regional guidance documents, including studies of the Blackstone River conducted by the Massachusetts Department of Environmental Pro-

tection (MassDEP), the EPA's New England region, and the U.S. Army Corps of Engineers. *Id.* at 49a & n.28. In particular, the court noted, the MassDEP study had concluded that a "luxuriant algal community" was flourishing at current discharge levels, thus leading the EPA to reasonably conclude "that the 2001 permit's 0.75 mg/L phosphorus limit" would be "insufficient to reduce cultural eutrophication and bring the River into compliance with state water quality standards." *Id.* at 49a-50a.

ARGUMENT

The court of appeals correctly held that the EPA did not act arbitrarily, capriciously, or contrary to law in setting the 0.1 mg/L phosphorus limit in petitioner's 2008 NPDES permit. That decision is fully consistent with the pertinent regulatory provision and does not conflict with any decision of this Court or any other court of appeals. Further review is not warranted.

1. EPA regulations authorize NPDES permit writers to "[e]stablish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under section 304(a) of the CWA, supplemented where necessary by other relevant information." 40 C.F.R. 122.44(d)(1)(vi)(B). Petitioner contends (Pet. 12-14) that the EPA failed to follow the requirements of this regulation in setting the 0.1 mg/L phosphorus effluent limit in its 2008 NPDES permit because the EPA "picked" the number "out of a federal guidebook" without considering site-specific data or information to determine whether the limit "was appropriate to meet state narrative water quality criteria for the Blackstone River."

As the court of appeals' decision makes clear, however, petitioner misconstrues the EPA's actions in this case. The court of appeals explained that, in setting the phosphorus limit for petitioner's NPDES permit, the

EPA *did* consider "various site-specific phosphorus load data" in addition to the national and regional guidance documents. Pet. App. 48a-49a. The court held that "[t]he EPA did not blindly follow any of the[] recommended limits [in the federal guidance documents], but after examining additional site-specific data, including local water quality studies, selected a phosphorus limit designed to ensure an in-stream concentration of 0.1 mg/L." *Id.* at 49a; see *id.* at 49a-50a & n.28 (discussing specific local studies considered by the EPA). The court's analysis belies petitioner's contention that the EPA merely "looked at a collection of various guidance documents, picked 0.1 mg/L from the federal 'Gold Book,' and asserted that this 'national' number was the appropriate in-stream phosphorus target for the Blackstone River." Pet. 4; see Nat'l Ass'n of Clean Water Agencies Amicus Br. 11-12.

Petitioner acknowledges the EPA's nuanced analysis in a footnote, but suggests that the site-specific data cited by the court of appeals was used "only to establish the phosphorus *effluent limit* of 0.1 mg/L, *not* the *in-stream phosphorus target* of 0.1 mg/L." Pet. 12 n.2 (citing Pet. App. 49a-50a). The EPA determined, however, that petitioner's discharges dominate the Blackstone River's flow during critical low-flow conditions such that the in-stream concentration of phosphorus will reflect the concentration in the District's discharges. See Pet. App. 17a, 49a n.27. The distinction petitioner seeks to draw therefore does not cast doubt on the adequacy of the EPA's analysis.

2. Petitioner's reliance (*e.g.*, Pet. 11) on *American Paper Institute, Inc.* v. *EPA*, 996 F.2d 346 (D.C. Cir. 1993), is misplaced. In that case, the D.C. Circuit upheld 40 C.F.R. 122.44 against an argument that it

"clashe[d] with Congress' intent to give the states the leading role in creating water quality standards." 996 F.2d at 351. The court noted that Section 122.44(d)(1)(vi)(B) "does not require state or federal permit writers to apply the federal guidelines 'whole hog,'" but rather directs that "the federal standard is to be employed on a 'case-by-case basis,' and may be 'supplemented where necessary by other relevant information.'" *Id.* at 352 (quoting 40 C.F.R. 122.44(d)(1)(vi)(B)). The court further explained that the regulation "requires a permit writer to tailor the federal standard to any relevant site-specific circumstances." *Ibid.*

As explained above, EPA did consider site-specific data and information in setting the 0.1 mg/L phosphorus limit in the District's 2008 permit. The agency's actions therefore were consistent with the *American Paper* court's understanding of Section 122.44(d)(1)(vi)(B).

Petitioner offers no reason to believe that the EPA would have incorporated an even less stringent phosphorus standard into petitioner's 2008 NPDES permit if the agency had attached greater weight to site-specific factors. Indeed, the EPA chose the *least stringent* phosphorus in-stream concentration target from the range prescribed by the guidance documents it considered. See p. 7, *supra*. And the 0.1 mg/L limit that the EPA included in the permit was based on an in-stream target that was more than 300 percent less stringent than the 0.024 mg/L limit recommended by the guidance document particular to Massachusetts's ecoregion. Pet. App. 49a. The only site-specific fact the petition identifies—that "there are numerous dams on the river, which create stagnant water and drastically affect the ability of the river to achieve water quality standards," Pet.

16—suggests that the Blackstone River is particularly prone to cultural eutrophication, and certainly does not indicate that a more lax phosphorus effluent limit would be sufficient to meet the relevant state water quality standards. See Pet. App. 5a ("The numerous dams and impoundments along the River create areas of stagnant water where nutrients collect and cultural eutrophication flourishes.").

CONCLUSION

The petition for a writ of certiorari should be denied.

Respectfully submitted.

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