IN THE SUPREME COURT OF THE STATE OF VERMONT

VERMONT SUPREME COURT DOCKET NUMBER 2009-286

IN RE: MONTPELIER WWTP DISCHARGE PERMIT

APPEAL FROM

ENVIRONMENTAL COURT OF VERMONT
DOCKET NUMBER 22-2-08 Vtec

BRIEF OF AMICI CURIAE
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IN SUPPORT OF APPELLEE CONSERVATION LAW FOUNDATION

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STATEMENT OF INTEREST

Amici Curiae are former senior officials for the State of Vermont who had responsibilities relating to the administration of Vermont's water pollution control programs, including the Clean Water Act permitting program known as the National Pollutant Discharge Elimination System or NPDES. Each has substantial professional expertise relevant to the question presented in this case and to the effect of this Court's decision on Vermont's NPDES program. Each of the amici curiae has a significant personal and professional interest in the Court's resolution of the important legal questions of this case, the effective administration of the State NPDES program, and the protection of the public health and Vermont's waters. This case presents issues of first impression in Vermont that will have a significant long-term impact on the implementation the state's water quality program and its waters, not just Lake Champlain, but any lake, river or stream which is impaired by water pollution. A fuller description of the backgrounds of the individual amici is set forth as Appendix A to this brief.

SUMMARY OF ARGUMENT

Now is not the time for the State of Vermont to become complacent about taking the steps necessary to control phosphorus pollution into Lake Champlain from municipal and industrial wastewater treatment plants. Phosphorus pollution is choking the life out of the Lake. Phosphorus from sources such as the City of Montpelier's wastewater treatment plant (WWTP) promote the growth of harmful algae, nuisance plants and other vegetation and so interferes in the public's ability to use and enjoy the Lake. The algal blooms and the decay of the vegetation also impact the Lake ecosystem, depleting the supply of oxygen in the water column, and impacting the survival of fish and wildlife. Yet, instead of taking action to limit the discharge of phosphorus through a program known to be effective, namely the NPDES permitting program, the State of Vermont is authorizing permits, such as for the City of Montpelier, which will allow phosphorus loads into the Lake to increase.

The State must take every available action because the conditions of the Lake have been getting worse, not better, despite well-intentioned efforts. Phosphorus pollution to Lake Champlain is increasing, largely due to increased urbanization and agricultural practices. These factors do not, however, preclude the protection and recovery of the Lake Champlain ecosystem. Through improved pollution controls, including more stringent nutrient limits on municipal wastewater treatment plants, water quality will improve over time.

As former regulators, the amici curiae are keenly aware of the challenges of protecting water quality given the dynamic and ever-changing nature of water quality conditions and the increasing contributions to pollution from changing land use patterns. Amici also know the strength of Vermont's point source permitting program. With its Clean Water Act authority, the Agency of Natural Resources (ANR or Agency) should use the permitting process to require

dischargers to control levels of pollution as necessary to ensure that our States' waters are protected for fishing and swimming. Using this authority as Congress intended, Vermont must periodically assess current water quality conditions and adjust discharger obligations accordingly.

The Environmental Court correctly recognized that the Clean Water Act and its regulations require regulators to ensure that a discharge does not cause or contribute to an exceedance of water quality standards in a waterbody such as Lake Champlain. Setting effluent limitations in a NPDES permit based solely upon the wasteload allocations done pursuant to a total maximum daily load (TMDL) process is insufficient. "Water quality-based effluent limits" that restrict a permit's limit beyond what would be required simply to satisfy a TMDL are necessary where, for a facility such as the Montpelier WWTP, attainment of water quality cannot otherwise be ensured. *See, e.g.*, 40 C.F.R. §122.44(d)(1)(vii)(B).

Indeed, the Clean Water Act's TMDL mechanism operates in tandem with the requirement for such limits. As the Environmental Court correctly explained, a TMDL wasteload allocation is only a "maximum" limit that sets the ceiling amount for point source discharges. The Vermont Agency of Natural Resources has an obligation to analyze current water quality conditions to determine whether more stringent permit limitations are needed before allowing a discharger to pollute up to the "maximum" allocation devised under a TMDL. In light of the condition of Lake Champlain and clear evidence that phosphorus loads are contributing to its decline, the State should not issue permits that allow phosphorus loads to increase.

The Environmental Court also correctly interpreted 40 C.F.R. § 122.44(d)(1)(vii)(B), the provision requiring regulators to analyze any assumptions underlying the wasteload allocations

made in a TMDL before basing a permit limit on that allocation. Regulators can only ensure protection of water quality after conducting time and site-specific analyses to determine whether these assumptions have been realized.

The main assumption underlying the 2002 Lake Champlain TMDL wasteload allocation for the Montpelier wastewater treatment facility is that increases in the City's phosphorus loading will be offset by reductions in nonpoint source pollution elsewhere in the watershed. This is a laudable goal, but Vermont's lack of success in controlling nonpoint source pollution to date show that making these reductions is not easy. After implementing a multitude of programs over the past three decades, nonpoint source pollution continues to be a major source of phosphorus pollution to Lake Champlain.

Phosphorus pollution is not a problem that can be assumed away through a TMDL. As part of the Clean Water Act's five-year-cycle permitting process, the Agency of Natural Resources has an obligation to check to see if phosphorus levels are in fact being reduced before allowing a polluter to discharge up to its maximum TMDL allocation. For this reason, the Environmental Court was right to require ANR to analyze whether the assumed reductions in nonpoint source pollution had been achieved.

In this case, ANR relied solely on a seven-year-old TMDL wasteload allocation to set a permit allowance for the Montpelier WWTP without considering whether any of the assumed decreases anticipated by the Lake Champlain TMDL had been achieved. In fact, the reductions are not being achieved as predicted. We may be decades away from seeing any measurable reduction in nonpoint source pollution into Lake Champlain. In the meantime, the Clean Water Act provides a straightforward and proven means for controlling phosphorus pollution from

point sources through the use of water quality-based effluent limits in Clean Water Act NPDES permits.

The Agency's argument that it can rely solely upon the TMDL would have the effect of diminishing the role of point source permits and must be rejected. ANR seeks to give permit holders the right to pollute up to the maximum wasteload allocation so long as a TMDL is in place regardless of whether the TMDL and the pollution "tradeoffs" it envisions have been fully implemented. Because there is no mechanism in the Clean Water Act for reopening TMDLs, the wasteload allocation could be in place for many permit cycles. Consequently, the Agency could avoid addressing either point source or non-point source pollution for many years without a proper analysis and without consequences or accountability. This interpretation could also tie the regulators' hands—forcing them to engage in the cumbersome process of completely redoing a TMDL in order to protect water quality even when targeted adjustments to pollution loads could be more easily achieved through the routine permit renewal process.

Congress enacted the CWA with the ultimate goal of eliminating all discharges into the Nation's waters. In the interim, states must actively and creatively work towards achieving water quality standards for each waterbody within their boundaries. The Clean Water Act provides the tools for protecting water quality through control of both point and nonpoint source pollution. Taking into account that those tools have not yet controlled excess phosphorus pollution in Lake Champlain, the Environmental Court's holding recognizes the importance of utilizing all available Clean Water Act tools to protect this natural treasure, including the point source discharge permits issued pursuant to the National Pollutant Discharge Elimination System.

BACKGROUND

I. PHOSPHORUS POLLUTION IN LAKE CHAMPLAIN

Phosphorus is a nutrient that helps aquatic plants grow but, in excess, it is harmful to waterbodies such as Lake Champlain. It is found in human waste, manure, lawn fertilizers, and other sources. Excessive phosphorus in water "causes algal blooms and excessive aquatic plant growth," which leads to water quality problems. Lake Champlain Basin Program, *Phosphorous Pollution*, *available at* http://www.lcbp.org/phospsum.htm (last visited Dec. 22, 2009). In Lake Champlain, large blooms of blue-green algae appear frequently during the summer when "abundant phosphorous" is present while "warm surface water temperatures and calm winds limit vertical mixing of the lake water." Lake Champlain Basin Program, *Blue-Green Algae (Cyanobacteria)*, *available at* http://www.lcbp.org/bgalgae.htm (last visited Dec. 22, 2009). These conditions can "contribute to blue-green algae growth patterns that produce neurotoxins and prompt local human health concerns." *Id*.

Nutrient pollution is a serious problem in Lake Champlain and other waterbodies throughout Vermont and the Nation. *See generally* State–EPA Nutrient Innovations Task Group, *An Urgent Call to Action* (2009), *available at* http://www.epa.gov/waterscience/criteria/nutrient/nitgreport.pdf (last visited Dec. 22, 2009); Vt. Dep't of Health, *Blue-Green Algae in Lake Champlain*, *available at* http://healthvermont.gov/enviro/bg_algae/bgalgae.aspx (last visited Dec. 22, 2009). For this reason, it is the general policy of the State of Vermont that, "[i]n all waters, total phosphorus loadings shall be limited so that they will not contribute to the acceleration of eutrophication or the stimulation of the growth of aquatic biota in a manner that prevents the full support of uses"

of the waterbodies. Water Res. Panel, Vt. Natural Res. Bd., *Vermont Water Quality Standards*, 12 004 052 Vt. Code. R. § 3-01(B)(2)(a) (2008).

Phosphorus pollution in Lake Champlain was first identified as a significant public health and environmental problem in the 1970s when Lake Champlain was included in the National Eutrophication Survey. Vt. ANR & N.Y. State Dep't of Envtl. Conservation, *A Phosphorus Budget, Model, and Load Reduction Strategy for Lake Champlain* 1 (1997), *available at* http://www.anr.state.vt.us/dec/waterq/lakes/docs/lp_lcdfs-finalreport.pdf (last visited Dec. 22, 2009). Through this national survey, the U.S. Environmental Protection Agency (EPA) developed the first phosphorus budget for the Lake. *Id.* Subsequent studies were done to estimate phosphorus loadings to Lake Champlain and, in 1979, the results were incorporated into the Lake Champlain Basin Study, the first comprehensive plan to address phosphorus eutrophication. *Id.* Initially, the efforts taken under the Lake Champlain Basin Study were successful at keeping phosphorus levels at bay. *Id.* Since 1990, however, phosphorus loadings to Lake Champlain have increased despite repeated attempts to reduce such pollution. Laura Medalie & Eric Smeltzer, *Status and Trends of Phosphorus in Lake Champlain and Its Tributaries, 1990-2000, in Lake Champlain: Partnerships and Research in the New Millennium* 191, 217 (Thomas O. Manley et al. eds., 2004) available at http://www.anr.state.vt.us/dec/waterq/lakes/docs/lp_phosstatustrends.pdf (last visited Dec. 22, 2009); Green Mountain Inst. for Envtl. Democracy, *Performance Audit of Vermont Clean and Clear*, at v (2008), *available at* http://www.anr.state.vt.us/cleanandclear/news/PerformanceAudit-CleanandClear-Jan142008.pdf (last visited Dec. 22, 2009)(*Performance Audit*).

II. VERMONT WATER QUALITY STANDARDS AND TOTAL MAXIMUM DAILY LOADS FOR PHOSPHORUS IN LAKE CHAMPLAIN

Due to the negative impacts of phosphorus on water quality, Vermont has established numeric water quality standards (WQS)[1] for phosphorus pollution in each of thirteen segments of Lake Champlain. 12 004 052 Vt. Code R. § 3-01(B)(2)(c), Table 3. The Main Lake Segment extends roughly from Burlington in the North to Essex in the South. *See* Vt. Dep't of Health, *Lake Status Map*, *available at* http://healthvermont.gov/enviro/bg_algae/weekly_status.aspx (last visited Dec. 22, 2009). The water quality standard for phosphorus in the Main Lake Segment is a concentration of 0.010 mg/L. 12 004 052 Vt. Code R. § 3-01(B)(2)(c) Table 3.

ANR has determined that Lake Champlain is not meeting water quality standards and so has developed a total maximum daily load (TMDL) for the Lake.[2] The TMDL provides that, in order to meet this water quality standard, phosphorus discharges from all sources within the Main Lake Segment must not exceed 110.3 metric tons per year. Printed Case (PC) at 30. In other words, the "total loading capacity" for the Main Lake Segment is 110.3 metric tons of phosphorus pollution per year.

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1. States establish WQSs for each waterbody within their borders. Clean Water Act, 33 U.S.C. § 1313(c) (2008). The WQSs must identify the designated uses of the waterbodies and the "water quality criteria for such waters based upon such uses." *Id*. § 1313(c)(2)(A). Further, the WQSs must be designed to "protect the public health or welfare, enhance the quality of water . . . taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and . . . other purposes . . . ." *Id*.

2. Under the Clean Water Act, each state must identify and prioritize the "waters within its boundaries for which the [technology-based] effluent limitations . . . are not stringent enough to implement any water quality standard applicable to such waters." *Id*. § 1313(d)(1)(A). Each state must then "establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters." *Id*. For each of these impaired waters, states must establish the TMDL for each pollutant contributing to the impairment. *Id*. § 1313(d)(1)(C). The TMDL must be set conservatively at the level "necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality." *Id*.

III. WASTE LOAD ALLOCATION FOR THE MONTPELIER WASTEWATER TREATMENT FACILITY

The Montpelier WWTP discharges phosphorus into the Main Lake Segment via the Winooski River. The wasteload allocation, or WLA,[3] for the Montpelier WWTP limits its phosphorus discharges to a maximum of 3.290 metric tons per year. PC at 38 Table 4. ANR predicted that this WLA, together with the WLAs for other point sources, would be sufficiently stringent to achieve the phosphorus water quality standard for the Main Lake Segment. PC at 29-31. This prediction was based on the assumption that new nonpoint source pollution control programs created under the TMDL (e.g., new programs to address stormwater discharges, streambank erosion, and agricultural runoff) would lead to a large reduction in nonpoint source pollution. PC at 61-62. The Agency acknowledged that it was relying heavily on these anticipated nonpoint source reductions as grounds for giving point sources "less stringent" WLAs than they otherwise would have been assigned. *Id*.

As part of the TMDL process, ANR must provide "reasonable assurances" for nonpoint pollution reductions, as required in EPA's TMDL guidance,[4] when describing the programs that

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3. As part of developing a TMDL for any given waterbody, the state must establish waste load allocations. These allocations apportion shares of the overall TMDL to each of the various point source dischargers and identify the maximum amount of pollution that can be discharged from each source into the waterbody. 40 C.F.R. §§ 130.2, 130.7.

4. *See, e.g.*, Memorandum from Robert Perciasepe, EPA Assistant Administrator, to Regional Administrators Regional Water Division Directors, *New Policies for Establishing and Implementing Total Maximum Daily Loads* (TMDLs) at VCLT Regulatory Appendix page 0042 (Aug. 8, 1997) [hereinafter *1997 Guidance*], *available at* http://www.epa.gov/OWOW/tmdl/ratepace.html (last visited Dec. 22, 2009)("[W]here any wasteload load allocation to a point source is increased based on an assumption that loads from nonpoint sources will be reduced, the State must provide 'reasonable assurances' that the nonpoint source load allocations will in fact be achieved."); EPA Office of Water, *Guidance for Water Quality-Based Decisions: The TMDL Process*, at 15 (1991) [hereinafter *1991 Guidance*], *available at* http://www.epa.gov/owow/tmdl/decisions/dec2.html (last visited Dec. 22, 2009)

it hoped would control non-point sources of phosphorus into the Lake. These "reasonable assurances" are applicable, as expressly noted by Agency in the Lake Champlain TMDL, where "a point source is given a less stringent wasteload allocation based on the assumption that nonpoint source load reductions will occur." PC at 61. In the Lake Champlain TMDL, the State gave point source dischargers into the Lake Champlain watershed a "less stringent" wasteload allocation in reliance upon its "reasonable assurances" that the described programs would control nonpoint sources of phosphorus. In effect, it traded off assumptions regarding the reduction of phosphorus from nonpoint sources in return for more generous loads of phosphorus from point sources.

In this case, the Environmental Court rejected the notion that the TMDL process, relying as it does on untested assumptions about future conditions, supplants the regulatory obligation to conduct a time and place-specific water quality analysis for permits issued after a TMDL is adopted. Specifically, it held that ANR could not, under the Clean Water Act, assign a permit limit for the Montpelier WWTP based solely on a seven-year-old TMDL wasteload allocation without first analyzing the TMDLs underlying assumptions. PC at 182-83. The court reasoned that any other interpretation would run counter to the Clean Water Act's language, purpose, and legislative intent because it would give polluters the indefinite "right to pollute" without requiring periodic analysis of the effect of that pollution to the waterway. *Id.*

("Where there are not reasonable assurances, under the CWA, the entire load reduction must be assigned to point sources.").

ARGUMENT

I. THE AGENCY OF NATURAL RESOURCES MUST ANALYZE CURRENT WATER QUALITY CONDITIONS IN LAKE CHAMPLAIN BEFORE SETTING NPDES PERMIT LIMITS AUTHORIZING DISCHARGES INTO THE LAKE CHAMPLAIN WATERSHED.

The fact that a Total Maximum Daily Load (TMDL) calculation has been performed for a waterbody in the past does not authorize a state to ignore more recent information about water quality in that waterbody when it analyzes the sufficiency of a polluter's permit conditions during the permit renewal process (every five years). As explained by EPA:

> A TMDL improves water quality when the pollutant allocations are implemented, not when a TMDL is established. When the State or EPA identifies a water quality impairment on a section 303(d) list and then establishes the TMDL, we begin a water quality-based process, not end one.

1997 Guidance, *supra* note 4, at VLCT regulatory appendix page 0042. And in a 1991 EPA guidance document, EPA explains that, in this water quality-based process, "it may be appropriate to provide that a permit may be reopened for a WLA which requires more stringent limits because attainment of nonpoint source load allocation was not demonstrated." *1991 Guidance*, *supra* note 4, at 24-25. Here, the State of Vermont cannot, consistent with EPA's guidance, regulations or the Clean Water Act, rely solely upon the existence of a seven-year-old TMDL for Lake Champlain and its assignment of a maximum allocation for phosphorus pollution to the Montpelier WWTP when setting permit limits. Instead, the State must make a determination that the allocation is sufficiently stringent to ensure that the discharge will not impermissibly contribute to an ongoing water quality violation.

A state permitting agency does not need to recalculate a new TMDL every time it authorizes a discharge or renews a permit. Yet, the wasteload allocations performed as part of a TMDL involving point and nonpoint source tradeoffs necessarily rely upon assumptions that

may or may not prove to be true. For this reason, the permitting agency does need to analyze current data to determine whether a discharge equal to the maximum allocation will contribute to a violation of water quality standards in the relevant waterbody every time it issues a five-year NPDES permit.

A. A Total Maximum Daily Load wasteload allocation sets a "maximum" pollutant load and, where the water quality standard is not being met, the Agency of Natural Resources should set a more stringent permit limit for that pollutant.

ANR has an obligation to analyze current water quality conditions before authorizing Montpelier's Wastewater Treatment Facility to discharge phosphorus pollution up to the "maximum" allocation devised under the TMDL. A TMDL sets the maximum amount of pollution allocated to point sources in the form of a wasteload allocation, but when water quality standards are not being met, this allocation can and should be supplemented with stronger facility-specific permit limits. As the Environmental Court reasoned, this interpretation is consistent with the plain language of the word "maximum" in the TMDL provision of the Clean Water Act. PC at 179.

Under Section 301(b)(1)(C) of the Clean Water Act and EPA's implementing regulations, it is mandatory for a state to include a water quality-based effluent limit, or WQBEL,[5] that is more stringent than the wasteload allocation if necessary to achieve water quality standards. 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44. EPA's regulations state that "[e]ach NPDES permit shall include . . . any requirements in addition to or more stringent than promulgated effluent

5. The Clean Water Act includes two types of effluent limitations. One type is technology-based. 33 U.S.C. § 1311(b). Recognizing that technology-based limitations alone may not be sufficient to achieve water quality goals, Congress also requires states to incorporate more stringent water quality protections into NPDES permits for individual dischargers as necessary where water quality standards are not being achieved. *Id.* §§ 1311(b)(1)(C), 1342(a)(1)(A); *see also EPA v. Cal. ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 205 n.12 (1976) (explaining that "numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels").

limitations guidelines or standards . . . necessary to [a]chieve water quality standards." *Id.* (emphasis added). The regulations also state that effluent limitations "must control all pollutants . . . which 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." *Id.* § 122.44(d)(1)(i) (emphasis added).

Accordingly, the State must incorporate into each discharger's NPDES permit—above and beyond the technology-based effluent limitations—a water quality-based effluent limit that is stringent enough to reduce the water quality impairment and help achieve the applicable water quality standards for the waterbody. *Id*. § 122.44(d). The wasteload allocation established for the facility during the TMDL process serves as the starting point for determining the stringency of the water quality-based effluent limit during the permitting process. *Id*. §§ 122.44(d), 130.7(a). The wasteload allocation establishes the maximum amount of pollution that can be discharged by a particular facility, but the water quality-based effluent limit in the facility's permit may be more stringent when needed to protect water quality and should hasten achievement of compliance with water quality standards. *Id*. § 130.2(f), (h), (i).

EPA's regulations are not ambiguous—the overriding question for the permitting authority in setting an effluent limitation is whether water quality standards will be met. The State may not simply authorize a discharge up to the level of a pollutant allocated in a TMDL. This is especially important where the TMDL is more than five years old, relies heavily on uncertain predictions about future water quality and pollutant loading conditions, and involves tradeoffs between point and nonpoint sources. Instead, the State must analyze whether the discharge will contribute to a violation of a water quality standard under conditions existing at the time of each permit reissuance.

Here, to determine whether a more stringent WQBEL is necessary to achieve the phosphorus water quality standard for the Main Lake Segment, ANR must conduct a "reasonable potential" analysis "which account[s] for existing controls on . . . nonpoint sources of pollution," among other things. *Id*. § 122.44(d)(1)(ii). As the Environmental Court properly reasoned, for this case, the reasonable potential analysis necessarily includes an analysis of the State's progress to date, or lack thereof, in achieving the reductions in phosphorus pollution anticipated under the 2002 Champlain TMDL. PC at 174.

Achievement of the reasonable assurances made in the TMDL process relating to phosphorus reductions cannot simply be assumed when issuing permits. The assumption that these programs would in fact reduce phosphorus loading into the Lake is a critical basis of the wasteload allocation. As stated by the ANR in the Champlain TMDL, the "less stringent" wasteload allocation for point sources of phosphorus such as the City of Montpelier is tied to the success of these programs. PC at 61. If the programs described as "reasonable assurances" in the TMDL are not achieved because the TMDL has not yet been fully implemented, then the TMDL does not provide an ongoing basis for less stringent effluent limits in an NPDES permit. The Environmental Court correctly decided that the Agency must evaluate whether the assumptions in the TMDL have proven true when renewing the City of Montpelier's wastewater treatment plant discharge permit.

Furthermore, "[w]hen developing water quality-based effluent limits" at each permit reissuance, EPA regulations provide that state agencies "shall ensure that: . . . [t]he level of water quality to be achieved by limits on point sources established under this paragraph is derived from, and complies with all applicable water quality standards." 40 C.F.R. § 122.44(d)(1)(vii)(A). In other words, the benchmark for the adequacy of water quality-based

effluent limits is whether they are sufficiently stringent to help achieve water quality standards, not whether they are identical to waste load allocations set in the TMDL. As noted by EPA's Environmental Appeals Board:

> While the governing regulations require consistency, they do not require that the permit limitations that will finally be adopted in a final NPDES permit be identical to any of the WLAs that may be provided in a TMDL. . . . TMDLs are by definition maximum limits; permit-specific limits like those at hand, which are more conservative than the TMDL maxima, are not inconsistent with those maxima, or the WLA upon which they are based.

In re: City of Moscow, Idaho, 10 E.A.D. 135, 148, 2001 WL 988721 (EPA Envtl. Appeals Bd. 2001) (emphasis in original). This approach makes sense because water quality standards are the centerpiece of the Clean Water Act's water quality-based protection scheme. The wasteload allocations are only one of several mechanisms that can help achieve water quality standards—consideration of other mechanisms, such as more stringent limits in NPDES permits, is especially important when those wasteload allocations are based on assumptions about future tradeoffs among pollution sources.

In fact, the water quality-based effluent limits imposed through the NPDES permitting program are another, perhaps even more critical, mechanism for achieving standards. TMDLs can appropriately be used by permitting agencies as a justification for tightening effluent limits and for holding them constant once water quality standards have been achieved through full TMDL implementation. When, however, as in this case, water quality standards are not being met, a maximum WLA that allows an increase in the actual amount of pollution cannot be used to short circuit the water quality-based effluent limits analysis required at each permit reissuance. To hold otherwise would undermine the Act's primary objective to "restore and maintain" water quality. 33 U.S.C. § 1251(a). In other words, permit WQBELs must be set at limits that move a waterbody closer to attainment of standards—not farther away.

B. The Agency of Natural Resources cannot justify less stringent permit effluent limits based solely upon the assumptions made in the 2002 Champlain Total Maximum Daily Load concerning reductions in nonpoint source pollution that have not been achieved.

The Environmental Court correctly held that ANR cannot blindly rely upon the assumptions underlying the wasteload allocations made in the 2002 Lake Champlain Phosphorus TMDL when setting a phosphorus limit in the renewed WWTP permit for the City of Montpelier. PC at 175. The TMDL wasteload allocation for the Montpelier facility was based on the assumption that new nonpoint source programs described in the TMDL's "reasonable assurances" would substantially reduce phosphorus pollution loads. These assumed "tradeoff" reductions have yet to materialize. ANR's permitting process failed to consider whether these assumptions had any continuing "basis of reliability." PC at 186. In fact, as discussed below, phosphorus levels in the Main Lake Segment are now nearly double the total loading capacity needed to achieve the phosphorus water quality standard.

Given that progress has been made in reducing point source discharges over the past several decades, the insufficient implementation of nonpoint source management programs is the most likely explanation for the increase in phosphorus loading. Medalie & Smeltzer, *supra,* at 191, 217. In order to address this regulatory gap, ANR has undertaken several strategies and programs over the years, but has neither reduced nonpoint source pollution nor achieved water quality standards. The appropriate response to this failure is not for the State to throw up its hands, but to instead use every tool at its disposal to find ways to reduce phosphorus discharges into the Lake. Point source effluent limits in NPDES permits are a proven means of reducing such discharges.

As former state officials responsible for protecting the quality of Vermont's waters, including Lake Champlain, Amici Curiae are painfully aware that past programs to control

phosphorus discharges into the Lake from non-point sources have not proved as successful as hoped. ANR initiated its first program to address nonpoint source pollution in the mid-1970s. *See* Vt. ANR, *Lake Champlain Water Quality Management Plan* (1976). The program used a planning approach, and it relied on voluntary compliance with management controls. *Id*. At that time, the Vermont Department of Environmental Conservation attributed about half of the state's phosphorus loading to nonpoint sources. *Id*. at VIII-1.

The Agency made a more concerted effort in the late 1980s when it established a Nonpoint Source Task Force and created a program to manage nonpoint source discharges. *See* Vt. ANR, *Vermont Nonpoint Source Management Program* (1988). The program focused primarily on agricultural runoff, and it called for a combination of studies, incentives for voluntary implementation, and increased coordination between agencies. *Id*. at 15. Yet, the nonpoint source problem was growing, with ANR now recognizing nonpoint source pollution as the most significant, widespread source of water pollution in Vermont. *Id*. at 1.

The State's next big push came in 1990 with the passage of the Lake Champlain Special Designation Act. *See* 33 U.S.C. § 1270. With funding authorized under federal statute, Vermont developed a plan using watershed-based phosphorus management strategies. Lake Champlain Management Conference, *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin* (1996), at 25 *available at* http://www.lcbp.org/THEPLAN.pdf (last visited Dec. 22, 2009). Between 1995 and 2001, Vermont implemented several nonpoint source pollution control programs under the plan that were predicted to lead to an estimated reduction of eight metric tons of phosphorus each year. Lake Champlain Steering Committee, *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin* (2003) at 19 *available at* http://www.lcbp.org/OFA-APRIL2003/Final-April03.pdf (last visited Dec. 22, 2009). This

reduction was not, however, realized. More recently, the revised plan, known as the "Clean and Clear Program," has also failed to reduce phosphorus loading. *See Performance Audit*, *supra*, at v.

Finally, the 2002 Lake Champlain Phosphorus TMDL also referenced several programs designed to reduce nonpoint source phosphorus pollution. PC at 67-101. None of these programs has been adequate to achieve water quality standards. Indeed, as of 2008, the Main Lake Segment was still receiving 217.9 metric tons of phosphorus per year—nearly double the total loading capacity of 110.3 set forth as the target in the TMDL. PC at 30; Lake Champlain Basin Program, *2008 State of the Lake & Ecosystem Indicators* (2008) at 5 *available at* http://www.lcbp.org/lcstate.htm (last visited Dec. 22, 2009). Thus, TMDL implementation has yet to achieve the needed reductions in phosphorus pollution from nonpoint sources. There has been, in fact, no measurable reduction in nonpoint source phosphorus loading. *See Performance Audit*, *supra*, at 16.

This history makes clear that the "tradeoff" assumptions used to develop the TMDL wasteload allocation for the City's sewage treatment plant must be regularly revisited as part of the NPDES permitting process. We all hope that major reductions in nonpoint source pollution will eventually be achieved through new programs referenced in the TMDL. Presently, however, these reductions have not occurred and water quality standards have not been achieved. When ANR issued a new NPDES permit to the Montpelier wastewater treatment facility in 2008, it utilized a process that ignored information showing that nonpoint reductions had not been attained, mistakenly believing that it was legally irrelevant. As explained by the Environmental Court, the Agency failed to analyze whether its authorization of phosphorus discharges in the

new permit was "consistent with the assumptions and requirements" of the 2002 Lake Champlain Phosphorus TMDL. PC at 188 (emphasis in original).

The Environmental Court correctly concluded, based on the plain language of 40 C.F.R. § 122.44(d)(1)(vii)(B), that ANR cannot set a water quality-based effluent limit equal to the City's maximum wasteload allocation without examining the assumptions discussed above. PC at 188. This conclusion is proper because ANR ignored Lake Champlain's current water quality conditions and improperly incorporated the TMDL's maximum wasteload allocation as the water quality-based effluent limit in the Montpelier NPDES permit. The Agency did so without making any effort to ensure that the permit limit was sufficiently stringent to achieve water quality standards. Accordingly, ANR's permitting process contravened the Clean Water Act.

II. THE AGENCY OF NATURAL RESOURCES' INTERPRETATION GIVES DISCHARGERS THE RIGHT TO POLLUTE REGARDLESS OF ACTUAL WATER QUALITY CONDITIONS.

The irony of ANR's approach to permitting, where a TMDL has been done, is that discharge permits may allow phosphorus levels from point sources such as Montpelier into Lake Champlain to increase. In creating the Clean Water Act, Congress made it clear that "no one has the right to pollute." S. Rep. No. 92-414, at 41, *reprinted in* 1972 U.S.C.C.A.N. 3668, 3674. All discharges are prohibited unless they conform to the specific requirements of the Act. 33 U.S.C. § 1311(a). ANR's approach runs counter to this core principle because it gives polluters the right to pollute up to the maximum level established in the wasteload allocation regardless of whether the wasteload allocation has been demonstrated to be stringent enough to protect water quality. *See* PC at 183. This is especially inappropriate under the present circumstances because it is undisputed that phosphorus pollution from the Montpelier facility contributed to phosphorus levels which, when considered together with other point and nonpoint sources of phosphorus, are

nearly double the total loading capacity of the Main Lake Segment. PC at 152 (permitting Montpelier WWTP to discharge 7,253 pounds of phosphorus per year). Authorizing an increase in phosphorus loads from point sources, given these facts, is nonsensical as well as counter to the entire thrust and purpose of the Clean Water Act.

ANR argues that using the seven-year old WLA as the water quality-based effluent limit in Montpelier's NPDES permit satisfies the requirement that permit limits must be "consistent with the assumptions and requirements of any available wasteload allocation." 40 C.F.R. § 122.44(d)(1)(vii)(B). Under this interpretation, however, the Agency (and the discharger) could rely solely on WLAs in the 2002 Lake Champlain TMDL as the phosphorus limit for each and every five-year permit reissuance indefinitely into the future, with no regard for actual water quality degradation or the discharger's contribution to such degradation. ANR's approach would, for facilities discharging into waterbodies covered by a TMDL, transform the five-year NPDES permitting process into a largely meaningless exercise. This result is clearly contrary to the framework of the Clean Water Act which places the NPDES program as a central part of the structure of the Act and a primary driver of pollution control. *See, e.g.*, 33 U.S.C. § 1311 (regarding effluent limitations); *id.* § 1342 (regarding the National Pollutant Discharge Elimination System); *see also Catskill Mtns. Chapter of Trout Unlimited, Inc. v. City of New York*, 273 F.3d 481, 485-86 (2d Cir. 2001) ("The Clean Water Act's primary function is to regulate the discharge of pollutants into navigable waters.").

The State's argument—that requiring an analysis of current water quality conditions at each permit reissuance would render the wasteload allocation meaningless—is premised on a misunderstanding of the Environmental Court's holding. As the court recognized, TMDLs are valuable tools for protecting water quality. PC at 178-79. Through the TMDL process,

regulators make important findings concerning the loading capacity of the receiving water, the various sources contributing pollution to the receiving water, and the upper limit on pollution that each source may contribute to the receiving water if water quality standards compliance is to be attained and maintained. By providing this key information, a completed TMDL makes the regulator's task easier when setting water quality-based effluent limits during the NPDES permitting process. Even when water quality concerns call for application of more stringent permit limitations, regulators are aided by the baseline TMDL information and the ongoing implementation of programs for controlling non-point source pollution. TMDL wasteload allocations—based as they often are on assumptions about as-yet unrealized future conditions—cannot, however, completely substitute for the permit by permit analysis of whether the proposed effluent limitations will assure that water quality standards will be met. To conclude otherwise would substantially diminish the importance of the NPDES program in a manner inconsistent with the Act and EPA's regulations.

As the Environmental Court reasoned, even when a NPDES permit contains a more stringent water quality-based effluent limit, the wasteload allocation will continue to play an important role in the regulation of point source discharges. This allocation of a waterbody's pollutant loading capacity is a ceiling amount that cannot be exceeded and serves as an important guide for permit writers. PC at 179. The fact that a regulator must apply a more stringent water quality-based effluent limit when needed to restore and maintain water quality does not render the wasteload allocation meaningless. *Id*. The process of determining an appropriate effluent limitation gives the regulator the flexibility to apply more stringent permit limitations beyond the wasteload allocation when more stringency is needed to restore and protect water quality in a timely manner. The wasteload allocation remains a tool that can be used to measure the overall

success of programs to control the discharge of pollutants into the Lake. It cannot be used, however, as a basis for ignoring the contribution of a point source such as the City of Montpelier to longstanding and ongoing exceedances of Vermont's water quality standards.

The Agency's interpretation allows regulators to base permit limits on TMDL wasteload allocations even if more stringent permit limitations are needed to achieve water quality standards. In the case of Lake Champlain, a current analysis of the Lake's water quality reveals that more stringent permit limitations are needed to achieve the target phosphorus levels. The Main Lake Segment currently receives twice the targeted amount of phosphorus pollution. *2008 State of the Lake*, *supra*, at 5. This is a situation that calls for the use of all available regulatory tools to address phosphorus loading, including more stringent point source effluent limitations.

III. TO ACHIEVE THE GOALS OF THE CLEAN WATER ACT, THE AGENCY OF NATURAL RESOURCES MUST HAVE THE FLEXIBILITY TO ADJUST WASTEWATER DISCHARGE PERMITS IN RESPONSE TO CHANGES IN WATER QUALITY CONDITIONS.

Regulators must be able to adjust effluent limits in NPDES permits over time to address the fact that water quality is not a static condition in any waterbody. Pollution levels and water quality conditions fluctuate with the changes in climate, precipitation, and changing land use patterns, among other factors. *See* PC at 174 (recognizing that water quality and pollutant loading conditions are "site-specific and time-specific"). As such, the Clean Water Act's process for regulating water quality "is a dynamic one, in which requirements and emphases vary over time." 40 C.F.R. § 130.0(e).

Congress structured the Act to respond to this fact by building in periodic review and revision mechanisms in numerous places throughout the statute. This is particularly true of the NPDES permitting process, which limits permit terms to a maximum of five years and requires review and reissuance at each of those five-year intervals. 33 U.S.C. § 1342(b)(1)(B). This

periodic review mechanism gives regulators the opportunity to take a fresh look at permit requirements in light of new scientific data and technological developments. The five-year permitting review gives regulators the flexibility to control pollution discharges from a facility, if necessary to achieve water quality standards. The permitting process also gives regulators the flexibility to authorize the discharge of pollutants from a facility up to the cap set by the wasteload allocation set in a TMDL in situations where a waterbody will meet or is meeting water quality standards even after assimilating the discharge.

ANR's interpretation robs the statute of this much-needed flexibility. ANR's premise is that any discharge equal to a maximum TDML wasteload allocation will not, under any circumstances, cause or contribute to a water quality standards violation in the receiving water subject to the TMDL. Taken to its logical conclusion, this interpretation deprives regulators of necessary authority under 33 U.S.C. § 1311(b)(1)(C) and 40 C.F.R. § 122.44(d) to require a WQBEL that is more stringent than a maximum wasteload allocation even when the regulator's determination is based on current water quality and pollution loading data. The Environmental Court properly recognized that Congress did not intend for the TMDL program to handcuff regulators in this way. As former water quality regulators, we applaud the Environmental Court's proper reading of Congress's pragmatic solution to water pollution.

CONCLUSION

Vermont ANR has failed to consider current water quality and pollutant loading conditions when establishing the water quality-based effluent limit for phosphorus pollution during the reissuance of the Montpelier WWTP's NPDES permit. As a result, ANR has failed to meet its statutory and regulatory obligations under the Clean Water Act, and failed to adequately protect water quality in Lake Champlain.

Amici Curiae are proud of the State's long-standing efforts to protect the Lake but it is clear that past efforts have not been yet achieved the ultimate goal of a clean Lake. The State of Vermont and the Agency of Natural Resources must use all available tools to protect the crown jewel of our state's public trust water resources. This includes setting more stringent limits on phosphorus in wastewater discharge permits such as the City of Montpelier's as necessary to protect water quality in the Lake. Therefore, we respectfully urge this Court to uphold the Environmental Court's ruling.

Submitted this 24th day of December 2009,

s/s David K. Mears_____
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*I would like to acknowledge the significant contributions of Vermont Law School Student Clinicians Quincy Hansell and Evan Belser to this brief.

APPENDIX A

Tim Burke served in the Vermont House of Representatives from 1985 to 1989 and was chair of the House Natural Resources and Energy Committee in the 1989 legislative session. In 1989, Burke was appointed Commissioner of Environmental Conservation and then, in 1990, as Secretary of the Agency of Natural Resources where he served until January 1991. He served again as Commissioner of Environmental Conservation in 1991. Mr. Burke was Executive Director of the Adirondack Council from 1991 to 2001. The Adirondack Council advocates for the protection of the Adirondack Park, which includes most of the New York portion of Lake Champlain and its watershed. From 2005 to 2007, Burke was the Lake Champlain Lakekeeper for the Conservation Law Foundation, advocating for water quality improvements for the Lake.

Stephen Dycus served on the Vermont Water Resources Board for four years from 1993 to 1997. He is currently a Vermont Law School professor, where he has been on the faculty since 1976, and is an internationally recognized authority on national security and the law, water rights, and wills and trusts. Prior to joining Vermont Law School, Professor Dycus served as a bank trust officer in Texas, and then served as assistant dean at Southern Methodist University Law School. Professor Dycus was a visiting scholar at the University of California at Berkeley's Boalt Hall School of Law in 1983 and at the Natural Resources Defense Council in Washington, DC, in 1991. He was a visiting professor at the United States Military Academy in West Point, New York, from 1991 to 1992 and at Petrozavodsk State University in Karelia, Russia, in 1997. Professor Dycus earned his BA degree in 1963 and his LLB degree in 1965 from Southern Methodist University. He earned his LLM degree in 1976 from Harvard University.

John Kassel served as Secretary of the Vermont Agency of Natural Resources from 1998 to 2000, and served as its Deputy Secretary from 1996 to 1998 and General Counsel from 1994 to 1996. During his time at the Agency he oversaw, among other things, a significant expansion of the Enforcement Division, including enlargement of the legal staff. Since leaving the Agency in 2000, Mr. Kassel co-founded a law firm in Burlington and focused his practice on renewable energy development and the non-profit sector. In 2009, he was named President of the Conservation Law Foundation. Prior to his work at the Agency of Natural Resources he worked as a Deputy State's Attorney in Chittenden County (1992-1994), a litigation associate at a Burlington law firm (1987-1992), and law clerk to the Hon. Jos. L. Tauro, then United States District Judge for the District of Massachusetts. He is a graduate of Middlebury College and Cornell Law School.

Jonathan Lash served as Secretary of the Vermont Agency of Natural Resources from 1987 to 1990 and served the previous two years as Vermont's Commissioner of Environmental Conservation. During his tenure in Vermont government, Lash helped write, win enactment of and implement innovative statutes on issues ranging from pollution prevention and solid waste management to protection of pristine streams. Mr. Lash is currently the president of the World Resources Institute whose research, analysis and policy recommendations provide practical solutions to global challenges of environment and sustainability. He is recognized internationally for his expertise on climate change, energy security, and resource, environment and development policies. Other positions held by Mr. Lash include as director of the

Environmental Law Center at the Vermont Law School, and senior staff attorney at the Natural Resources Defense Council. He served as a law clerk to The Hon. Frank M. Coffin, then Chief Judge of the United States Court of Appeals for the First Circuit. He earned his baccalaureate degree from Harvard University and his masters and law degrees from the Catholic University of America.

Patrick Parenteau served as Commissioner of the Vermont Department of Environmental Conservation from 1987 to 1989 and also served as regional counsel for the United States Environmental Protection Agency, Region I, in Boston from 1984 to 1987. He is a professor at Vermont Law School recognized for his expertise regarding endangered species and biological diversity, water quality and wetlands, environmental policy and litigation, and land use and property rights. His current focus is on the threat of global climate disruption. Since joining Vermont Law School, Professor Parenteau has served as Director of the Environmental Law Center, and founder and Director of the Environmental and Natural Resources Law Clinic, where he now serves as Senior Counsel. Other positions held by Professor Parenteau include three positions at the National Wildlife Federation: Counsel, Director of the Resources Defense Division and Vice-President for Conservation. He has also served as Of Counsel to the firm Perkins, Coie in Portland, Oregon, and as Staff Counsel for the Legal Aid Society of Omaha, Nebraska.