

No. 2004-515

**In The
Supreme Court of Vermont**

In re Stormwater NPDES Petition

On Appeal from the Vermont Water Resources Board

**Amicus Brief of the Honorable Philip Henderson Hoff, the Honorable
George E. Little, Jr. and the National Wildlife Federation in support of
Appellees**

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STATEMENT OF INTEREST

The Honorable Philip Henderson Hoff, the Honorable George E. Little, Jr. and the National Wildlife Federation ("NWF") submit this brief *amicus curiae* in support of Appellees Conservation Law Foundation and Vermont Natural Resources Council.

The Honorable Philip Henderson Hoff was Governor of the State of Vermont from 1962-1969. He has been a resident of Burlington, Vermont since 1951. In addition to his years of public service in the United States Navy during World War II and as Governor, he also served one term in the Vermont House of Representatives and three terms in the Vermont Senate. He presently serves on many boards, including the Lake Champlain Chamber of Commerce.

The Honorable George E. Little, Jr. is a lifelong resident of Burlington, Vermont. In addition to his public service in the United States Air Force during World War II, he served two terms in the Vermont House of Representatives and five terms in the Vermont Senate.

NWF, with which Appellee Vermont Natural Resources Council is affiliated, has a long history of involvement in, and expertise concerning, the protection of our Nation's waters and the implementation of the Clean Water Act. Through testimony in Congress, comments and other advocacy in the Executive Branch, and litigation in the courts, it has pursued these interests repeatedly during the three decades since enactment of the seminal 1972 Amendments that gave the Clean Water Act its current structure. This federal 501(c)(3) organization has members who use and rely on Lake Champlain for recreation, scientific study, hunting, fishing and protection of their health, safety, property, drinking water, and food supply.

SUMMARY OF ARGUMENT

This case presents a question of first impression under the federal Clean Water Act, 33 U.S.C. § 1251-1587 (2000) (“CWA” or “the Act”) that has major implications for achieving the Act’s water quality objectives in Vermont and throughout the nation. Of particular significance for Vermonters is the repercussion this case may have on the future of Lake Champlain, the “crown jewel” of Vermont’s priceless natural heritage. The unfortunate truth is that Lake Champlain is in serious trouble. Polluted runoff from stormwater discharges, like those at issue here, is choking the life out of Lake Champlain. Excess phosphorous is the number one culprit, but many other conventional and toxic pollutants are washing off the rooftops, sidewalks, roads, parking lots and other impervious surfaces of Vermont’s increasingly urbanizing landscape into Lake Champlain. As impervious surfaces increase, stormwater runoff increases and water quality declines. Chittenden County, in particular, is in the midst of a development boom in which the rate of land development is nearly three times the rate of population growth.¹ Stream degradation generally begins when impervious cover reaches or exceeds ten percent of the watershed.² Many of the small watersheds in the Lake Champlain Basin, including the five that are at issue here, have already exceeded this threshold and are severely impaired by the erosive and polluting effects of stormwater runoff. Lake Champlain has become the sink for all of this polluted runoff.

The same phenomenon is happening all across the country. According to the Environmental Protection Agency (“EPA”), stormwater accounts for one-third of the

¹ Vermont Forum on Sprawl, Economic, Social and Land Use Trends Related to Sprawl, available at <http://www.vtspawl.org/Initiatives/research/Exploring%20Sprawl/Newsletter6/DetailedResearch.htm> (last visited Apr. 4, 2005).

² Center for Watershed Protection, The Importance of Imperviousness, available at http://www.cwp.org/tools_protection.htm (last visited Apr. 4, 2005).

water quality impairment nationally. The severity of the stormwater runoff problem led Congress to amend the CWA in 1987 to strengthen the regulatory controls on stormwater discharges by creating a special permit program under section 402(p)(2) as part of the National Pollutant Discharge Elimination System (“NPDES”), the program that regulates all discharges of pollutants to the nation’s waters. Although Congress vested the EPA with the primary authority to administer the CWA, it also recognized that a strong federal-state partnership was needed to achieve the Act’s bold objective “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). In Vermont, the Agency of Natural Resources (“ANR”) has been delegated the authority to administer various programs under the CWA, including the NPDES program, subject to compliance with certain federal statutory and regulatory requirements, some of which are at issue here.

This case involves a specific provision of EPA’s “Phase II” rules for stormwater controls known as the “residual designation authority.” This provision requires ANR, in response to a citizen petition, to determine whether an individual stormwater discharge, or a category of discharges in a specific geographic area, contributes to a violation of water quality standards in the receiving waters; and, if so, to require the dischargers to obtain a federal permit that sets specific, enforceable, effluent limits. Appellees’ filed a petition to designate all of the stormwater discharges within five “water quality impaired” watersheds that the Vermont Water Resources Board (the “Board”) had previously determined were contributing to water quality standards violations. ANR denied Appellees’ petition outright without making any of the required factual determinations. On appeal, the Board ruled that ANR had misinterpreted EPA regulations by

categorically refusing to require federal permits, regardless of whether the discharges were violating water quality standards. Rather than order all of the affected dischargers to obtain individual NPDES permits, however, the Board remanded the case to allow ANR to determine whether *de minimis* discharges would be subject to the NPDES requirement, and to consider alternative approaches, such as general permits, to comply with federal law.

Amici contend that the Board got it right, both in terms of its interpretation of federal law and in terms of the remedy it ordered. By contrast, ANR's interpretation would render the residual designation authority provision a nullity, and undercut the goals set by Congress in enacting the stormwater program. *Amici* further respectfully maintain that the claims of some of the parties that the Board's decision threatens to wreak economic devastation in Vermont and across the country are widely off the mark. There is no reason that economic development and water quality protection cannot go hand in hand. There is flexibility in the NPDES permitting process, and it should be given a chance to work before condemning it.

ARGUMENT

I. REDUCTION OF STORMWATER POLLUTANTS IS CRITICAL TO RESTORING LAKE CHAMPLAIN AND MEETING THE GOALS OF THE CWA

A. Lake Champlain Is a Unique, Vulnerable Ecosystem

As this Court knows, Lake Champlain is a vital part of Vermont's natural and human history. It is the largest lake in New England,³ and the largest body of fresh water

³ EPA New England, Lake Champlain Basin Fact Sheet, available at <http://www.epa.gov/NE/eco/lakechamplain/LkChamp02.pdf> (June 2002). Lake Champlain is 200 kilometers long, with 1,124 square kilometers of surface area, and has a drainage basin of nearly 20,000 square kilometers. Lake Champlain in Transition: From Research Toward Restoration, in 1 Water Science and Application vii (Thomas O. Manley & Patricia L. Manley eds., 1999) [hereinafter Lake Champlain].

in the United States after the Great Lakes.⁴ Congress recognized the national importance of Lake Champlain when it passed the Lake Champlain Special Designation Act of 1990, Pub. L. No. 101- 596, 104 Stat. 3000, 3006-10 (1990), calling for “a comprehensive pollution prevention, control, and restoration plan for protecting the future of Lake Champlain.”⁵

The United Nations has designated the Lake Champlain Basin as an International Biosphere Reserve in recognition of its outstanding biological, cultural and scenic value.⁶ The Lake is home to over 81 species of fish, 318 species of birds, 56 species of mammals, 21 species of amphibians, and 20 reptile species.⁷ Of these different species, 30 species are listed by federal or state agencies as endangered or threatened.⁸

The Lake Champlain Basin fosters diverse cultural, recreational, and natural resources cherished by anyone who lives in or visits this area.⁹ The Basin is home to over 600,000 residents, and “millions of visitors are drawn to its waters and other natural and historical features each year.”¹⁰ Lake Champlain is a source of drinking water for over 200,000 people.¹¹ Within its 8,200 square mile watershed, Lake Champlain supports a regional economy of more than \$9 billion.¹²

⁴ Lake Champlain, *supra* note 3.

⁵ Lake Champlain Steering Committee, Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin 5 (Apr. 2003) [hereinafter Opportunities].

⁶ EPA New England, *supra* note 3.

⁷ Howland, et al., Lake Champlain 2, available at http://www.worldlakes.org/uploads/champlain_30sep04.pdf (Sept. 30, 2004).

⁸ *Id.* at 15.

⁹ *Id.* at 1.

¹⁰ *Id.*

¹¹ Lake Champlain Basin Program, Atlas, available at http://www.lcbp.org/Atlas/HTML/nat_lakefax.htm (last visited Apr. 5, 2005).

¹² Editorial, We Have Failed to Fulfill Our Responsibilities, Burlington Free Press, Mar. 12, 2005, available at LEXIS, News Library, US Newspapers. (Appendix A).

Tourism in the Lake Champlain Basin generates approximately \$3.8 billion every year in economic activity, over two-thirds of the overall state tourism income.¹³

Furthermore, twenty-three percent of all jobs in Vermont are generated by the tourism industry and depend on the Basin. Towns along the lakeshore benefit from \$1.5 billion in visitor expenditures each year.¹⁴ Sales of agricultural products produced in the Basin area, such as milk, maple syrup, and apples, generate approximately \$500 million annually. All of these activities, especially recreational activities on Lake Champlain, “depend on a clean lake.”¹⁵

Rainfall accounts for nearly eighty percent of the precipitation falling around Lake Champlain, and approximately sixty percent in the mountains.¹⁶ While the spring snow-melt has the most dramatic impact on Lake Champlain’s water levels, the lake continuously receives surface water via stormwater runoff that enters into the lake’s many tributaries each time it rains.¹⁷

B. Stormwater Is Slowly Killing Lake Champlain

Portions of Lake Champlain are in worse shape today than Lake Erie was when it was declared “dead” in the 1970’s.¹⁸ For example, phosphorus levels in Lake Champlain are high enough to cause excessive growth of algae and other aquatic plants.¹⁹ This growth reduces transparency and oxygen levels in the water, and adversely impacts the aquatic communities in Lake Champlain, as well as causes foul odors and poor aesthetics.

¹³ Howland, et al., supra note 7, at 2.

¹⁴ Id.

¹⁵ Id.

¹⁶ James B. Shanley & Jon C. Denner, The Hydrology of the Lake Champlain Basin, in Lake Champlain in Transition: From Research Toward Restoration, in 1 Water Science and Application 41, 45 (Thomas O. Manley & Patricia L. Manley eds., 1999).

¹⁷ Opportunities, supra note 5, at 7.

¹⁸ Id. at 11.

¹⁹ U.S. Army Corps of Engineers: New York District, Lake Champlain Watershed Environmental Assistance Program: Vermont and New York General Management Plan 11 (June 2004).

As a result, phosphorus poses the single “greatest threat to water quality, living organisms, and human use and enjoyment of Lake Champlain.”²⁰ In fact, certain strains of blue-green algae, now commonly found in Lake Champlain, can produce dangerous toxins that damage the human nervous system and liver.²¹ Moreover, “the deaths of several pets that ingested” the algae indicates that the health risk associated with these algae blooms “has increased.”²² As of 2003, Vermont Department of Environmental Conservation experts note that parts of Lake Champlain exceeded the allowable phosphorus levels by almost 100 percent “and it’s not getting better.”²³

One of the major factors contributing to Lake Champlain’s degradation, especially in terms of phosphorus loading, is urban stormwater runoff.²⁴ ANR recognizes that communities experiencing “significant residential and commercial growth,” such as Chittenden County, are especially contributing to this problem.²⁵ Urban land, which covers only 5.5 percent of the Basin,²⁶ yields over thirty-seven percent of the average annual phosphorus load not contributed from wastewater or industrial discharges, which is “much more phosphorus per unit area than either agricultural or forested land.”²⁷ The phosphorus enters Lake Champlain via stormwater runoff which is channeled into the

²⁰ Id.; see also Opportunities, supra note 5, at 11.

²¹ Howland, et al., supra note 7, at 15.

²² Id.

²³ Matt Crawford, Fighting to Keep Phosphorus at Bay, Sept. 8, 2003, at 1A, available at LEXIS, News Library, US Newspapers. (Appendix B).

²⁴ Lake Champlain Basin Program, Stormwater Runoff, available at <http://www.anr.state.vt.us/champ/storm.htm> (last visited Apr. 4, 2005) [hereinafter Stormwater Runoff].

²⁵ Id.

²⁶ Jonathan R. Winsten, Policy Options for Reducing Phosphorus Loading in Lake Champlain, available at http://www.champphos.org/P_Policy_Options_LakeChamplain.pdf (Apr. 2004).

²⁷ U.S. Army Corps of Engineers: New York District, supra note 19, at 11.

Lake's many tributaries.²⁸ Stormwater also contains other pollutants, such as pathogens (*E. coli*), sediments, mercury, heavy metals, and other toxic substances.²⁹

These pollutants end up in Lake Champlain through storm drains, and from culverts or other mechanisms channeling stormwater runoff from impervious surfaces, such as parking lots and other developed areas.³⁰ In summer months, Lake Champlain's beaches are often closed due to high levels of *E. coli* and the presence of blue-green algae, which are attributable to stormwater runoff.³¹ Recently, the presence of pathogens has increased the number of beach closings around Lake Champlain, especially in Chittenden County.³² Moreover, toxics such as polychlorinated biphenyls (PCBs) and mercury found in Lake Champlain have resulted in frequent health advisories concerning the consumption of fish caught in the lake.³³

Over ninety-percent of the water entering Lake Champlain comes from tributary rivers and streams; therefore, the focus needs to be on stormwater discharges entering these tributaries.³⁴ In fact, more than ninety-five percent of the water in Lake Champlain passes over the 8,234 square miles of the Basin as surface water runoff and picks up a number of toxic pollutants, including phosphorus, before entering Lake Champlain.³⁵ Experts realize that the only true way to alleviate problem pollutants entering Lake Champlain, such as phosphorus, toxic substances, heavy metals and pathogens, is to

²⁸ Lake Champlain Basin Program, Fact Sheet Series Number 3: The Basin, available at <http://www.lcbp.org/factsht/Basinfo.pdf> (last visited Mar. 1, 2005).

²⁹ Stormwater Runoff, *supra* note 24.

³⁰ Id.

³¹ Matt Crawford, Ecological Problems Plague Lake, Burlington Free Press, May 30, 2003, at 23E, available at LEXIS, News Library, US Newspapers. (Appendix C).

³² Opportunities, *supra* note 5, at 31.

³³ Id. at 4. Certain areas, such as Mallets Bay and Burlington Harbor, are known to be contaminated with toxic substances at levels that cause excessive problems to aquatic species and human health.

³⁴ Howland, et al., *supra* note 7, at 4.

³⁵ Opportunities, *supra* note 5, at 7.

identify and regulate pollution entering Lake Champlain's major tributaries.³⁶ Therefore, stormwater runoff discharges into Lake Champlain's impaired tributaries must be addressed.

II. THE CLEAN WATER ACT STRICTLY REGULATES STORMWATER DISCHARGES

A. An Overview of the Clean Water Act

The purpose of the CWA "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101(a); 33 U.S.C. § 1251(a). The U.S. Supreme Court stated that this objective incorporates "a broad, systematic view of the goal of maintaining and improving water quality," and that the word "integrity," as found within the Congressional statement of purpose, "refers to a condition in which the natural structure and function of ecosystems [are] maintained." United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 132 (1984) (quoting H.R.Rep. No. 92-911, at 76 (1972)). The relevant components of the Act are described below.

1. Effluent Limitations and Water Quality Standards

The principal mechanism Congress chose to achieve its goal of restoring and maintaining the Nation's waters is to require permits for the discharge of any pollutant from any point source to navigable waters.³⁷ These permits, issued under the NPDES program, impose technology-based effluent limitations ("TBELs") that restrict the quantities, rates, and concentrations of pollutants being discharged from all point sources.

³⁶ Id. at 8, 24, and 31.

³⁷ See Save the Valley, Inc. v. U.S. E.P.A., 223 F.Supp. 2d 997, 1006 (S.D. Ind. 2002) ("the Act works by regulating all discharges of pollutants into waters of the United States. It does so through the federally mandated and supervised NPDES permit program. Compliance with the Clean Water Act is determined through compliance with NPDES permits."). Section 502 of the CWA defines a "discharge" as "any addition of any pollutant to navigable waters from any point source. . . ." CWA § 502, 33 U.S.C. § 1362(12). The term "point source" means "any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit . . ." 33 U.S.C. § 1362(14). The term "navigable waters" means "the waters of the United States, including the territorial seas." 33 U.S.C. § 1362(7).

See CWA § 301, 33 U.S.C. § 1311. The ultimate goal of the CWA is to eliminate discharges altogether. 33 U.S.C. § 1251(b).

In addition, the CWA directs each state to set water quality standards, which establish the desired ambient condition and water quality goals of state waterways. CWA § 303, 33 U.S.C. § 1313; 40 C.F.R. § 131.2 (2004). These standards are designed to supplement effluent limitations “so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels.” EPA v. California ex rel. State Water Res. Control Bd., 426 U.S. 200, 205, n.12 (1976). The purpose of a water quality standard is to ensure that the water quality of a water body provides for “the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water. . . .” CWA § 101(a)(2), 33 U.S.C. § 1251(a)(2).

Water quality standards consist of three components: designated uses, water quality criteria, and a state-wide antidegradation policy. 40 C.F.R. § 131.6. These standards define a state’s water quality goals by “designating the use or uses to be made of the water and by setting criteria necessary to protect the uses.” 40 C.F.R. § 131.2. Section 303 of the CWA requires that each state designate uses, or water quality goals, for *all* bodies of water within that state. CWA §303, 33 U.S.C. § 1313.³⁸ Designated uses are “those uses specified. . . for each water body or segment whether or not they are being attained,” and one water body can have multiple designated uses. 40 C.F.R. § 131.3(f). For example, Vermont Water Quality Standards establish for Lake Champlain

³⁸ If the state fails to submit water quality standards pursuant to the section, the EPA Administrator must set water quality standards for such state. CWA § 303(b)(1)(A), 33 U.S.C. § 1313(b)(1)(A). EPA approved Vermont’s most recently adopted Water Quality Standards on December 22, 1999. Notice of EPA Approvals and Announcement of EPA Internet Repository, 66 Fed. Reg. 29951, 29953 (June 4, 2001).

the following designated uses: drinking water, water contact recreation, and fishing.³⁹ Moreover, designated uses also include existing uses, or “uses actually attained in the water body on or after November 28, 1975. . . .” 40 C.F.R. § 131.3(e). Therefore, these existing uses, and the level of water quality necessary to protect them, must be maintained. 40 C.F.R. § 131.12(a)(1).

To protect designated and existing uses, states must adopt appropriate water quality criteria for all state water bodies. These criteria must be based on reputable science and “must contain sufficient parameters” to protect and maintain the water’s designated uses.⁴⁰ 40 C.F.R. § 131.11(a)(1). Once established, water quality criteria become the applicable regulatory requirement for a particular water body, and are expressed as either (i) chemical-specific concentrations, (ii) toxicity levels, or (iii) narrative statements that represent the quality of water necessary to support a specific use for that water body. 40 C.F.R. § 131.11.

Finally, states must develop and adopt an antidegradation policy, and identify methods for implementing this policy. 40 C.F.R. § 131.12(a). The antidegradation policy must, at a minimum, maintain and protect: (1) existing water uses; (2) water qualities that exceed levels necessary to support propagation of fish and recreation; and (3) high-quality waters that constitute an outstanding national resource.⁴¹ Id. Once in place, the antidegradation policy, combined with state designated uses and the necessary water quality criteria to protect these uses, acts as the final component to a state’s obligations under the CWA.

³⁹ State of Vermont, Vermont Water Quality Standards §§3-03(A)-(B), 4-04, 4-05 (2000).

⁴⁰ For waters with multiple use designations, the criteria must support the most sensitive or restrictive use.

⁴¹ If the State finds that allowing a lower water quality is necessary to accommodate important economic or social development, then it may do so. However, the State must still assure water quality adequate to protect existing uses. 40 C.F.R. § 131.12(a).

2. Impaired Waters and Total Maximum Daily Loads ("TMDLs")

Section 303(d) of the CWA requires states to identify waters for which TBELs, set by the EPA, and other pollution controls "are not stringent enough" to meet state water quality standards. 33 U.S.C. § 1313(d)(1)(A); 40 C.F.R. § 130.7(b)(1). Waters failing to meet current water quality standards are classified as water quality limited segments ("WQLS"), more commonly known as impaired waters. States must "establish a priority" for ranking their impaired waters based on the "severity of the pollution and the uses to be made of such waters." 33 U.S.C. § 1313(d)(1)(A). The states' lists of impaired waters and their priority rankings are known as 303(d) lists, and these lists must be submitted to the EPA every two years for review and approval. 33 U.S.C. § 1313(d)(2); 40 C.F.R. § 130.7(d)(1).

Once the state identifies and prioritizes its list of impaired waters, section 303(d) of the CWA requires states to prepare "total maximum daily loads" ("TMDLs") for each pollutant impairing each WQLS. 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 130.7(c)(1). A TMDL is the maximum quantity of a pollutant that can be present in a water body from *all* sources, including natural background sources. 33 U.S.C. § 1313(d)(1)(C); 40 C.F.R. § 130.2(i). This amount, or load, must be established to meet applicable water quality criteria with "seasonal variations and a margin of safety" to account for any "lack of knowledge" between effluent limitations (limits imposed at the end of the pipe) and water quality. 33 U.S.C. § 1313(d)(1)(C). After calculating the appropriate TMDLs for all pollutants affecting impaired waters, the state must submit a list of these TMDLs to the EPA every two years, along with their 303(d) list of impaired waters. Id.; see also 40 C.F.R. § 130.7(d)(1). Furthermore, the state must rank in priority each impaired water

body, and identify all impaired waters targeted for TMDL development within the next two years. 40 C.F.R. §§ (b)(1), (b)(4) and (d).

According to the latest 303(d) list submitted by ANR to EPA, the five water bodies at issue here—Potash, Englesby, Morehouse, Centennial, and Bartlett Brooks—are impaired waters that do not meet the Vermont Water Quality Standards.⁴² In its report, ANR identified stormwater as the principal source of the pollutants impairing these particular brooks.⁴³ In particular, stormwater is impairing the ability of all of these brooks to support aquatic life and, in the Englesby and Potash Brooks, the ability of the public to use the water for contact recreation (i.e. swimming).⁴⁴

Because the phosphorus concentrations in Lake Champlain are greater than the levels allowed by applicable Water Quality Standards, section 303(d) of the CWA required the Basin states to adopt a TMDL for phosphorus.⁴⁵ In 2002, ANR and the New York State Department of Environmental Conservation prepared a TMDL for Lake Champlain.⁴⁶ A TMDL functions as a “pollutant budget,” setting the total amount of a given pollutant that a water body can assimilate from all sources and still meet water quality standards.⁴⁷ The TMDL also allocates pollutant “loads” among point and

⁴² Vermont Dep’t of Env’tl. Conservation, Vermont’s 2004 303(d) List of Waters, available at http://www.anr.state.vt.us/dec/waterq/planning/docs/pl_303dlist.pdf (last visited Apr. 5, 2005).

⁴³ Id. at 4, 6.

⁴⁴ Id.

⁴⁵ Once the state identifies and prioritizes its list of WQLSs under section 303(d)(1)(A), section 303(d)(1)(C) of the CWA requires states to prepare “total maximum daily loads” (“TMDL”) for each pollutant impairing each WQLS. 33 U.S.C. § 1313(d)(1)(A-C); 40 C.F.R. § 130.7(c)(1).

⁴⁶ Vermont Agency of Natural Res. & New York State Dep’t of Env’tl. Conservation, Lake Champlain Phosphorus TMDL (Sept. 25, 2002).

⁴⁷ Vermont Dep’t of Env’tl. Conservation, Fact Sheet: Lake Champlain Phosphorus TMDL 1 (Sept. 25, 2002). After calculating the appropriate TMDLs for all pollutants affecting impaired waters, the state must submit a list of these TMDLs to the EPA every two years, along with its 303(d) list of impaired waters. 33 U.S.C. § 1313(d)(1)(C); see also 40 C.F.R. § 130.7(d)(1). The state must rank in priority each impaired water body, and identify all impaired waters (WQLSs) targeted for TMDL development within the next two years. 40 C.F.R. §§ 130.7(b)(1), (b)(4), (d). In addition, states must biannually submit a Water Quality Inventory Report (305(b) report), describing the overall water quality of all navigable waters. 33 U.S.C. §

nonpoint sources. For new and existing point sources these “waste load allocations” are incorporated into NPDES permits as quantitative limits so that they can be monitored and enforced.⁴⁸

The overall goal of the 2002 TMDL was to reduce phosphorus discharges from all sources to defined levels, referred to as the “in-lake phosphorus concentration criteria.”⁴⁹ This requires point sources to reduce their waste load allocations by roughly 22 metric tons per year; load allocations from non-point sources, such as agricultural runoff, would have to be reduced by approximately 80 metric tons per year.⁵⁰

However, recent studies indicate that the annual phosphorus loads must be reduced by another 77 metric tons to meet the in-lake criteria set for phosphorus.⁵¹ In fact, some segments of Lake Champlain are experiencing levels of phosphorus 100 times greater than the phosphorus criteria limit set by the TMDL.⁵² For example, the Missisquoi Bay, St. Albans Bay, and South Lake segments of Lake Champlain have extremely high levels of phosphorus, and regularly experience nuisance algae conditions.⁵³ Unregulated urban stormwater runoff is a significant contributor to this problem. Moreover, this runoff is entering Lake Champlain primarily through

1315(b). The 305(b) report must describe the extent to which such waters can provide protection and propagation of designated uses. 33 U.S.C. § 1315(b). The State of Vermont submitted its most recent 305(b) Water Quality Inventory Report and its 303(d) list of impaired waters in June and July, 2004 respectively.

⁴⁸ See EPA, Guidelines for Reviewing TMDL's, available at <http://www.epa.gov/owow/tmdl/guidance/final52002.html> (last visited Apr. 4, 2005).

⁴⁹ Opportunities, supra note 5, at 12. The in-lake phosphorus concentration criteria are set for each segment of Lake Champlain and are expressed in milligrams per liter (or parts per million). One milligram in a liter of water is the equivalent of 4 drops of ink in a 55-gallon barrel of water. For example, the phosphorous concentration criteria for Shelburne Bay, which is the outlet for Potash Brook (one of the five impaired brooks involved in this case), is .010 mg/l. Vt. Water Quality Standards, supra note 39, at Table 3.

⁵⁰ Vermont Dep't of Env'tl. Conservation, supra note 47, at 2, 3.

⁵¹ Opportunities, supra note 5, at 13.

⁵² Crawford, supra note 23, at 1A.

⁵³ Opportunities, supra note 5, at 11.

stormwater-impaired tributaries, which contribute more than 90 percent of the water that enters Lake Champlain.⁵⁴

Some progress has been made on reducing phosphorous loadings to Lake Champlain. A report issued in 2000 by the Lake Champlain Basin Program estimates that Vermont, New York, and Quebec have reduced the phosphorus inputs into the lake by 38.8 metric tons per year.⁵⁵ However, this report also indicated that not all segments could meet the phosphorus criteria targets by relying solely on existing reduction programs.⁵⁶ This is because urban-developed land “generates significantly more phosphorus per unit area,” in the form of stormwater runoff, than any other land use.⁵⁷ Areas experiencing high urban growth, such as Chittenden County, which are converting agricultural land for urban uses, offset the gains made through other phosphorus reduction efforts. To restore Lake Champlain, we must focus on identifiable sources like stormwater discharges, and use the tools that Congress has provided, in particular section 402(p)(2)(E).

B. The NPDES Program

1. The General Rule Is that All Point Source Discharges Must Be Permitted

Section 301(a) of the CWA prohibits the discharge of any pollutant from any point source to navigable waters, except in compliance with a NPDES permit issued under section 402. 33 U.S.C. § 1311(a). See City of Milwaukee v. Illinois and Michigan, 451 U.S. 304, 310-311 (1981) (“The [1972] Amendments established a new system of regulation under which it is illegal for anyone to discharge pollutants into the

⁵⁴ See Lake Champlain Basin Program, supra note 28.

⁵⁵ U.S. Army Corps of Engineers: New York District, supra note 19, at 12.

⁵⁶ Id.

⁵⁷ Id. at 11.

Nation's waters except pursuant to a permit.”); Driscoll v. Adams, 181 F.3d 1285, 1289 (11th Cir. 1999) (“[T]he amended CWA *absolutely* prohibits the discharge of *any pollutant* by any person, *unless* the discharge is made according to the terms of an NPDES permit.”) (additional emphasis added). Stormwater systems under human control are specifically subject to the NPDES permit requirement by EPA rule. 40 C.F.R. § 122.2(b).

The NPDES program is administered by the EPA, or by states with delegated permitting authority. CWA § 402(b), 33 U.S.C. § 1342(b). State programs approved by the EPA must demonstrate “adequate authority” to carry out the requirements of the Federal NPDES program and the CWA. 33 U.S.C. § 1342. The EPA Administrator retains authority to deny permits issued by a delegated state if he finds the terms objectionable. 33 U.S.C. § 1342(d)(2). Furthermore, states have the ability to “require discharge limitations *more stringent* than those required by the Federal Government.” Int’l Paper Co. v. Ouellette, 479 U.S. 481, 490 (1987) (emphasis added); 40 C.F.R. § 122.1(f). In 1974, EPA delegated authority to the State of Vermont to administer the NPDES program. See In re Stormwater NPDES Petition, No. WQ-03-17, Mem. of Decision at 4 (Vt. Water. Res. Bd., Apr. 1, 2004).

Sections 301(b)(1)(C) and 303(e)(3)(A) require that all NPDES permits include any limitations and conditions necessary to comply with all aspects of the water quality standards set by the state pursuant to section 303. 33 U.S.C. §§ 1311(b)(1)(C), 1313(e)(3)(A); 40 C.F.R. §§ 122.4, 128.28. For example, a permit may not be issued if the applicant’s discharge will violate a state’s antidegradation policy to protect existing uses. 40 C.F.R. § 122.4(a). If a point source discharge has “reasonable potential” to

cause or contribute to violations of state water quality standards, any NPDES permit issued must apply appropriate conditions above and beyond the technology-based effluent limitations normally required. 33 U.S.C. §§ 1311(b)(1)(C), 1311(e)(3)(A); 40 C.F.R. § 122.44(d).

Accordingly, the NPDES permit program “is central to the enforcement of the [CWA, as] it translates general effluent limitations into the specific obligations of a discharger.” Natural Res. Def. Council v. Costle, 568 F.2d 1369, 1374 (D.C. Cir. 1977). In fact, the CWA “relies primarily on [the NPDES] permit program for the achievement of effluent limitations” in the Nation’s waters, which is the goal of the CWA. Natural Res. Def. Council v. Train, 510 F.2d 692, 695 (D.C. Cir. 1974). These effluent limitations are “intended to create *floors* that ha[ve] to be respected by state permit programs.” Natural Res. Def. Council v. Costle, 568 F.2d at 1378 (emphasis added).

2. Regulation of Stormwater Discharges Under Section 402(p)

After years of failed efforts to control stormwater under the original CWA, Congress passed the Water Quality Act of 1987 (“WQA”), which added section 402(p) to strengthen stormwater regulation under the NPDES program.⁵⁸ The legislative history of the WQA reveals Congressional dissatisfaction with the pace at which the EPA was implementing the NPDES permitting requirements of section 402. For example, Senator Durenberger stated during floor debates:

The Federal Water Pollution Control Act of 1972 required all point sources, *including storm water discharges*, to apply for NPDES permits within 180 days of enactment. Despite this clear directive, EPA has failed to require most storm water point sources to apply for permits which would control the pollutants in their discharge. The conference bill therefore includes provisions which address industrial, municipal, and other storm water point sources. I participated in the development of this

⁵⁸ Vermont’s former Senator Bob Stafford was a principal sponsor of the WQA.

provision because I believe that it is critical for the Environmental Protection Agency to begin addressing this serious environmental problem.

133 Cong. Rec. S752 (daily ed. Jan. 14, 1987) (emphasis added).

Congress ordered that section 402(p) be implemented in phases to allow EPA, the states, and the regulated community time to adapt to the new permit requirements. See Natural Res. Def. Council v. EPA, 966 F.2d 1292, 1296 (9th Cir. 1992) (“The purpose of this approach was to allow EPA and the states to focus their attention on the most serious problems first.”) (citing 133 Cong. Rec. 991 (1987)). The EPA has implemented section 402(p) in two phases: Phase I and Phase II. There will not be a Phase III.⁵⁹ In November of 1990, the EPA promulgated its first stormwater regulations in response to the WQA, commonly referred to as the “Phase I Regulations.” 40 C.F.R. § 122.26(a)(1)(i-v) (1990).⁶⁰ The Phase I Regulations require NPDES permits for the five classes of stormwater discharges listed in section 402(p)(2).⁶¹ The Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, 64 Fed. Reg. 68722 (1999) (codified at 40 C.F.R. § 122.26) (“Phase II Final Rule”) expand the set of discharges that require NPDES permits to include small municipal separate storm sewer

⁵⁹ EPA, National Pollutant Discharge Elimination System (NPDES) Questions and Answers 3, available at http://www.epa.gov/npdes/pubs/sw_qanda_entiredocument.pdf (last modified Dec. 17, 2004).

⁶⁰ National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47990 (Nov. 16, 1990) (“Phase I Final Rule”).

⁶¹ Section 402 (p)(2) includes the following categories:

- (A) A discharge with respect to which a permit has been under this section before February 4, 1987.
- (B) A discharge associated with industrial activity.
- (C) A discharge from a municipal separate storm sewer system serving a population of 250,000 or more.
- (D) A discharge from a municipal separate storm sewer system serving a population of 100,000 or more but less than 250,000.
- (E) A discharge for which the Administrator or the State, as the case may be, determines that the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

systems (“MS4’s”) and construction activities that affect one to five acres of land,⁶² and retain and broaden the authority for EPA and delegated states to require NPDES permits under the residual designation authority of section 402(p)(2)(E) of the CWA.⁶³

Section 402(p)(2)(E) provides the EPA (or a delegated state) with “residual designation authority” to require NPDES permits for stormwater discharges on a case-by-case basis where “the Administrator or the State, as the case may be, determines that the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.” CWA § 402(p)(2)(E), 33 U.S.C. § 1342(p)(2)(E). The inclusion of this “catch-all” provision plainly indicates that Congress intended that *all* stormwater discharges that were contributing to water quality standards violations be subject to the NPDES permit requirement even though they did not fit neatly into one of the other categories enumerated in section 402(p)(2).⁶⁴

III. THE BOARD CORRECTLY INTERPRETED SECTION 402(p)(2)(E), THE RESIDUAL DESIGNATION AUTHORITY PROVISION OF THE CWA

A. The Procedural History

On June 27, 2003, Conservation Law Foundation (“CLF”), joined on September 19, 2003 by Vermont Natural Resources Council (“VNRC”), petitioned ANR to determine that the five brooks in question “contribute to known violations of the Vermont Water Quality Standards in the brooks and in Lake Champlain and therefore require

⁶² 40 C.F.R. § 122.26(a)(9)(i)(A-B).

⁶³ *Id.* § 122.26(a)(9)(i)(C-D).

⁶⁴ See the supplemental information in the *Phase II Final Rule*, 64 Fed. Reg. 68722, 68781 (1999) (stating that “individual instances of storm water discharge might warrant special regulatory attention, but do not fall neatly into a discrete, predetermined category.”).

National Pollutant Discharge Elimination System permits pursuant to section 402(p)(2)(E) of the Clean Water Act.” CLF Pet. at 1 (internal definitions omitted).

In the Petition, CLF summarized previous Board and ANR determinations “that the existing stormwater discharges at issue contributed to the violation of water quality standards in the receiving waters [Englesby Brook, Morehouse Brook, Centennial Brook, and Bartlett Brook].” CLF Pet. at 5. In addition, “the Board determined in the Lowe’s case that ‘every discharge of pollutants into [Potash Brook and Shelburne Bay],’ including existing stormwater discharges, ‘contributes to the existing impairment.’” Id. Faced with these facts, and the deterioration of Lake Champlain, CLF urged ANR to exercise its residual designation authority and require NPDES permits for existing discharges into these impaired waters.

On September 26, 2003, ANR denied the Petition. McLain Letter to Kilian of 9/26/03. ANR refused to “require NPDES permit[s] for all existing stormwater discharges to Potash, Englesby, Morehouse, Centennial, and Bartlett Brooks.” Id. at 1. ANR did not contest the fact that the brooks were impaired, or that the discharges were contributing to water quality standards violations. Rather ANR took the position that there was no need to require NPDES permits because the state already had an “independent BMP-based stormwater management program” that could do the job. Id. at 2. Under this interpretation of EPA’s rules, of course, no stormwater discharge would ever be designated under the residual authority regardless of the impact it might have on water quality.

In response to ANR’s denial of the Petition, CLF and VNRC appealed ANR’s decision to the Board. On October 14, 2004, the Board issued its Memorandum of

Decision in favor of Appellants. In re Stormwater NPDES Petition, No. WQ-03-17, Mem. of Decision at 12 (Vt. Water. Res. Bd., Oct. 14, 2004). The Board found that “discharges of stormwater pollutants into stormwater-impaired streams...cause or contribute to the violations of the Vermont Water Quality Standards in these waters and require federal discharge permits, except for any de minimis discharges.” Id. at 1. In reaching this conclusion, the Board determined that because the Petition specified existing stormwater discharges in particular waterbodies, the Petition dealt with a category of discharges and that such categories are properly the subject of residual designation authority petitions under 40 C.F.R. § 122.26(a)(9)(i)(D), the applicable federal regulation. Id. at 11. The Board remanded the matter to ANR to take several actions:

- 1) establish any *de minimis* discharge threshold, beyond which NPDES permits would be required;
- 2) establish NPDES permit conditions;
- 3) determine whether to administer individual and/or general NPDES permits;
- and
- 4) notify dischargers of potential NPDES permit obligations.

Contrary to other characterizations of the Board’s decision, the Board did not dictate that ANR immediately issue NPDES permits to all dischargers of stormwater into the brooks. The Board simply held that EPA’s rules do not allow ANR to reject petitions based on the mere existence of a state stormwater program, particularly where there is undisputed evidence that the discharges in question are, in fact, contributing to violations of Vermont Water Quality Standards.

B. ANR's Arguments Are Without Merit

ANR makes three principal arguments on appeal: (1) that the CLF Petition is defective because it does not identify each and every stormwater discharge in the five impaired watersheds; (2) that EPA rules allow ANR to decline to require NPDES permits where there is an alternative state permit program in place; and (3) that the Board failed to conduct an evidentiary hearing to establish that the brooks are actually impaired and that the dischargers do in fact contribute to water quality standard violations. State of Vermont Br. at 15. There is no merit to any of these arguments.

1. The Phase II Rule Expressly Authorizes the Designation of Categories of Discharges Within Specific Geographic Areas Including Watersheds

EPA's Phase II Regulations clearly state that the requirement for a NPDES permit is triggered by a determination that "the discharge, *or* category of discharges within a geographic area, contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States." 40 C.F.R. § 122.26(a)(9)(i)(D) (emphasis added). Under the Phase I Regulations, the residual designation authority applied to "a discharge." 40 C.F.R. § 122.26(a)(1)(v). In the Phase II Regulations, EPA amended the regulations to *expand* the provision to allow designation on a categorical basis. 40 C.F.R. § 122.26(a)(9)(i)(D). As EPA explained in the preamble to the Phase II Final Rule:

Other storm water discharges from unregulated ... sources will not be subject to the NPDES permit requirements unless a permitting authority determines on a case-by-case basis (*or on a categorical basis within identified geographic areas such as a State or watershed*) that regulatory controls are needed to protect water quality.

Phase II Final Rule, at 68736 (emphasis added). EPA stresses a "watershed approach to program administration," and makes clear its intent to address "categor[ies] of discharges

within a defined geographic area.” *Id.* at 68739. EPA elaborated on this geographic area concept by stating that “Areas can be defined very broadly to include political boundaries (e.g., county), *watershed boundaries*, or State or Tribal land.” *Id.* (emphasis added).

Consistent with the Phase II Regulations, the CLF Petition identified a category of stormwater dischargers within the boundaries of five specific watersheds. The Petition further alleged that all of the watersheds were stormwater-impaired and that all of the discharges were contributing to violations of water quality standards. That is all that section 122.26(a)(9)(i)(D) requires. ANR’s contention that the Phase II Regulations require the Petitioner to identify each and every discharge renders meaningless the option of designating a *category* of discharges.

The Board properly rejected ANR’s argument that the language of 40 C.F.R. § 122.26(f)(2) requires a different outcome. Mem. of Decision at 10-11. Section 122.26(f)(2) states: “Any person may petition the Director [or delegated state authority] to require a NPDES permit for *a discharge* which is composed entirely of storm water which contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.” 40 C.F.R. § 122.26(f)(2) (emphasis added). ANR seizes on the quoted language to argue that, even though § 122.26(a)(9)(i)(D) plainly authorizes designation of entire *categories* of discharges, citizens are limited to petitioning for designations one by one. State of Vermont Br. at 18-21. The Board found this to be an unreasonable interpretation of the residual designation process, holding that “It would not be reasonable for the law to require NPDES permits for categories of stormwater discharges but to limit the petition process to one discharger at a time.” Mem. of Decision at 11. Indeed, ANR’s position is directly contrary to the stated

objective of the Phase II Final Rule, which is to address stormwater problems on a watershed basis. The Board's decision harmonizes any discrepancy there may be between the language of 40 C.F.R. § 122.26(f)(2) and § 122.26(a)(9)(i)(D), and gives effect to both provisions in furtherance of the goals of the stormwater program.⁶⁵

2. The Existence of a State Permit Program Does Not Obviate the Requirement for an NPDES Permit For Dischargers that Contribute to Violations of Water Quality Standards

The record reflects considerable confusion on the part of ANR, as well as the Board, on which provision of the Phase II Regulations governs here. ANR points to language in section 122.26(a)(1) regarding consideration of "other relevant factors" as a justification for its position to reject Appellees' Petition. The Board considered, but rejected, ANR's arguments under section 122.26(a)(1)(v). Mem. of Dec., No. WQ-03-17 (Oct. 14, 2004) at 5-7. However, that section is inapplicable to a petition to designate under section 122.26(a)(9)(i)(D).

First, section 122.26(a)(1)(v), which originated in the Phase I Regulations, applies to the designation of MS4s.⁶⁶ The discharges at issue here are not MS4s. As such, section 122.26(a)(1)(v) simply does not apply. On the contrary, the applicable regulatory section—section 122.26(a)(9)(i)(D)—contains no language regarding consideration of

⁶⁵ There is a simple explanation for why the language of the two regulations is not identical. The petition regulation was adopted in the Phase I Rule, when the residual designation authority was initially limited to individual discharges. Phase I Final Rule, at 48036, 48072. In the Phase II Final Rule, EPA expanded the designation to include "categories of discharges." Phase II Final Rule at 68737, 68779. Unfortunately, probably due to oversight, EPA did not revise the language of section 122.26(f)(2) to reflect that change in scope. In any case, regulatory provisions should be read in *pari materia*, which is exactly what the Board did. Soler v. G. & U., Inc., 833 F.2d 1104, 1109 (2d Cir. 1987); cf. In re 1650 Cases of Seized Liquor, 721 A.2d 100, 105 (Vt. 1998) (applying rules of statutory construction to regulations).

⁶⁶ 40 C.F.R. § 122.26(a)(1)(v) ("The Director may designate *discharges from municipal separate storm sewers* on a system-wide or jurisdiction-wide basis. In making this determination the Director may consider the following factors: (A) The location of the discharge . . . [;] (B) The size of the discharge; (C) The quantity and nature of the pollutants discharged to waters of the United States; and (D) Other relevant factors.") (emphasis added).

“other relevant factors.” Therefore, that language cannot be bootstrapped from section 122.26(a)(1)(v).

Further, even if the four-factor analysis of section 122.26(a)(1)(v) is relevant to discharges other than MS4s, it does not follow that the mere existence of a state permit program is a “relevant factor” that allows ANR to dispense with the case-by-case determination required by the *statutory* residual designation provision—section 402(p)(2)(E). In the preamble to the Phase I Regulations, EPA explained that the case-by-case determination is a *Congressional* requirement:

In determining that a storm water discharge contributes to a violation of a water quality standard... for the purpose of a designation under section 402(p)(2)(E), the legislative history for the provision provides that EPA or the State should use any available water quality or sampling data to determine whether the latter two criteria... are met, and should require additional sampling as necessary to determine whether or not these criteria are met.

Phase I Final Rule at 47993-94 (1990) (internal quotations omitted).

The Phase II Regulations reaffirm the data-based approach to case-by-case determinations announced in the Phase I Regulations. Again, the preamble to the Phase II Regulations clarifies matters: “EPA is not designating any additional unregulated point sources of storm water on a nationwide, categorical basis. Instead, the remainder of the sources will be regulated based on case-by-case post-promulgation designations by the NPDES permitting authority.” Phase II Final Rule at 68779. As EPA explained, this was the only reasonable approach given the lack of data to support additional nationwide designations at that time. *Id.* EPA opted to defer further designations to allow permitting authorities at the state and local level to make case-by-case determinations as better information on the water quality impacts became available. *Id.* at 68780 (“EPA believes

that permitting authorities should have the flexibility to regulate only those categories of sources contributing to localized water quality impairments.”). By the same token, when data are available, as they are here, to demonstrate that stormwater discharges contribute to violations of water quality standards, section 122.26(a)(9)(i)(D) mandates that NPDES permits be obtained. Indeed, that is exactly what EPA told ANR in September, 2003: “In some situations there may not be enough information to determine the cause of impairment or to identify stormwater sources that contribute to the Water Quality Standards violation. But where such information exists, *NPDES permits should be required for stormwater discharges found to be contributing to standards violations.*” EPA Letter to ANR of 9/16/03, at 2 (emphasis added).

Finally, ANR’s argument that the passage of Act 140 in 2004 by the Vermont legislature, while the Petition was on appeal to the Board, somehow trumps federal law is well off the mark. While Act 140 is an important development, it will take time to implement. In the meantime, the discharges will continue and the requirements of federal law must be met. Under the CWA states are free to establish more stringent requirements and to regulate sources that would not be subject to federal regulation. But states are not authorized to simply substitute a new state permit scheme for the NPDES permit program.

In fact, during the Phase II rulemaking EPA considered a proposal from several states, including Vermont, to allow the substitution of alternative state permit programs for federal permits. EPA provided the states with the opportunity to demonstrate that such alternative programs would provide “equivalent or better protection of water quality.” Phase II Final Rule at 68740-41. However, when the states failed to present

workable programs, EPA ultimately decided to retain the federal permit requirements. Id. at 68741. However, EPA acknowledged the desirability of close coordination between federal and state requirements to incorporate state standards, whenever possible, and to avoid duplication and confusion. Id. at 68740.

As EPA explained to ANR in its September 16, 2003 letter, the only circumstance in which it “might” be appropriate to consider other water quality protections is when they are “already in place at a particular source when determining whether to designate that particular source,” and they are being “vigorously implemented.” EPA Letter to ANR of 9/16/03, at 3. Obviously, that is not the situation here, where there are no controls in place at the sources that are the subject of this action.⁶⁷

3. The Board Was Not Required to Re-Invent the Wheel Regarding the Fact that these Discharges Are Contributing to Water Quality Standards Violations in the Five Impaired Brooks

The Board properly relied on its previous findings of fact and conclusions of law in In re Hannaford Bros. Co. and In re Morehouse Brook to support its reasonable conclusion that “every discharge of stormwater pollutants into these stormwater-impaired urbanized waters contributes to the impairment.”⁶⁸ These earlier findings of fact and conclusions of law regarding the impairment and cause of impairment of the five brooks

⁶⁷ EPA stated that “EPA is still evaluating whether the existence of a state permitting program, in and of itself, or the fact that a discharge has received a state permit but has not yet implemented controls, would be a sufficient basis for EPA to deny a petition related to a discharge that is causing or contributing to a water quality standards violation....” EPA Letter to Michael O’Grady of 3/30/04 § 3. The fact that EPA has not taken any further action means that the guidance remains unchanged: the existence of a permit program does not eliminate the need for an NPDES permit.

⁶⁸ Mem. of Dec., No. WQ-03-17 (Oct. 14, 2004), at 11. In re Hannaford Bros. Co., No. WQ-01-01 (Vt. Water Res. Bd., Jan. 18, 2002), at 12. (“[T]he parties have agreed that the assimilative capacity of the receiving waters has already been exceeded for certain pollutants. ANR’s 1998 and 2000 Section 303(d) Lists identify the pollutants causing the impairment of the receiving waters... *Every discharge of these pollutants into the receiving waters contributes to the existing impairment.*”) (emphasis added); In re Morehouse Brook, Englesby Brook, Centennial Brook, and Bartlett Brook, Nos. WQ-02-04, WQ-02-05, WQ-02-06, and WQ-02-07 (consolidated) (Vt. Water Res. Bd., June 2, 2003), at 8 (“The primary pollutant causing the failure of the receiving waters to comply with the Vermont Water Quality Standards is sediment.... The causative agent for the sediment loading is stormwater runoff.”).

in this case have preclusive effect in the instant case under the theory of collateral estoppel. Collateral estoppel, also called issue preclusion, applies because both ANR and CLF were parties to the earlier cases; the issues were raised by the parties and resolved by the Board acting in its adjudicative capacity; there was a full and fair opportunity to contest the issues; and applying preclusion is fair, especially since no party is seriously arguing that the brooks are unimpaired by stormwater, or that existing stormwater discharges do not contribute to that impairment.⁶⁹ Trickett v. Ochs, 2003 VT 91, Para. 10, 176 Vt. 89, 838 A.2d 66.

IV. THE BOARD'S DECISION TO REMAND THE CASE FOR FURTHER DEVELOPMENT WAS REASONABLE AND THIS COURT SHOULD GIVE THAT PROCESS A CHANCE TO WORK FOR THE SAKE OF THE LAKE

The October 14, 2004 Order of the Board remanding the matter to ANR left the Agency with considerable discretion as to how it will exercise its residual designation authority. The Board left to ANR the determination of whether any given discharge contributes to violations of water quality standards in more than *de minimis* amounts. The threshold for *de minimis* contributions was likewise left to the discretion of ANR. ANR has already identified and ranked the major existing dischargers of collected stormwater in the Morehouse Brook, Englesby Brook, Centennial Brook, and Bartlett Brook watersheds, so the Agency's task is not as onerous as it might otherwise appear.⁷⁰ The Board did not dictate the requirements ANR must include in any particular NPDES

⁶⁹ "Collateral estoppel applies when (1) preclusion is asserted against one who was a party in the prior action; (2) the same issue was raised in the prior action; (3) the issue was resolved by a final judgment on the merits; (4) there was a full and fair opportunity to litigate the issue in the prior action; and (5) applying preclusion is fair." Trickett v. Ochs, 2003 VT 91, Para. 10, 176 Vt. 89, 838 A.2d 66.

⁷⁰ See In re Morehouse Brook, Englesby Brook, Centennial Brook, and Bartlett Brook, Nos. WQ-02-04, WQ-02-05, WQ-02-06, and WQ-02-07 (consolidated) (Vt. Water Res. Bd., June 2, 2003), at 10 ("In each watershed covered by the WIPs, ANR identified the existing major discharges of collected stormwater. These major contributors of stormwater pollutants are known as selected discharges. ANR identified selected discharges based on a watershed-wide ranking of the stormwater discharges that have the largest relative impact on the receiving waters.").

permits that may be issued. Conditions, restrictions, or requirements dictated by state water quality laws can and should be incorporated in the federal permits. The specifics of individual NPDES permits will likely vary from discharger to discharger and from stream to stream, while general NPDES permits may be appropriate for classes of similarly situated dischargers. Further, the Board did not determine whether individual or general permits were required, nor did the Board dictate how ANR must go about notifying dischargers of their NPDES permitting obligations. The Board left these determinations to ANR's discretion.

While the Board's decision left ANR with considerable discretion as to what requirements a NPDES permit must contain, ANR may not ignore facts and data that identify a discharge as a contributor to a violation of a water quality standard. It is precisely under these circumstances that Congress intended EPA, or delegated state authorities, to permit stormwater discharges in an effort to meet the goals of the Act.

Three major benefits flow from the application of the residual designation authority in this case. First, the conditions and restrictions in NPDES permits are enforceable under federal law. If resource limitations prevent ANR from ensuring compliance with NPDES permits by taking necessary enforcement actions, EPA, and, as a last resort, private citizens may enforce NPDES permits. There is no alternative enforcement mechanism under state permitting programs.

Second, NPDES permits foster consistent stormwater regulation within and among states. This is especially important here, where Vermont and New York share responsibility for the health of Lake Champlain and the citizens of both states depend upon it for drinking water, tourism and recreation. NPDES permits issued by Vermont

give rise to the ability of the State of New York to weigh in as to whether such permits will also meet New York Water Quality Standards. Due to the international significance of Lake Champlain and Congress' express statutory directive to protect and restore the lake, consistent regulation is a worthy goal.

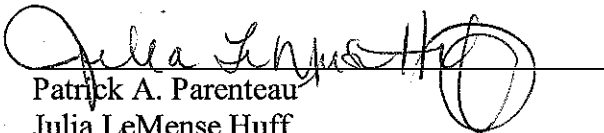
Third, NPDES permits are subject to EPA oversight. EPA may review the permits to ensure consistency with other applicable laws and regulations, or amend the permits to better advance the goals of the Act.

The Board did not dictate how ANR should exercise its delegated authority under section 402(p)(2)(E), only that it must do so when confronted with evidence that discharges are contributing to water quality standards violations. Lake Champlain is a treasure, and deserves better treatment than it has been getting. The first step is for ANR to bring currently unpermitted discharges into compliance with the Clean Water Act.

CONCLUSION

For the foregoing reasons, *Amici* respectfully urge the Court to uphold the decision of the Water Resources Board.

Respectfully submitted this 8th day of April, 2005


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⁷¹ Attorneys for Amicus wish to recognize the significant contributions to this brief made by student clinicians Zachary K. Brown and Zachary K. Griefen

APPENDIX A

1 of 2 DOCUMENTS

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December 14, 2003 Sunday

SECTION: OPINION; Pg. 10C

LENGTH: 1148 words

HEADLINE: SAVING OUR LAKE

BYLINE: Staff

BODY:

We have failed to fulfill our responsibilities

This is the first in a four-part series.

Look out over Lake Champlain from the Burlington waterfront or Grand Isle or any number of perches along the scenic shoreline and you will see one of the nation's most exquisite natural resources.

This lake, this jewel of New England, is simply beautiful. Its sparkling waters, which skip and dance against the backdrop of the mighty Adirondack Mountains, are central to our economy, history and way of life.

The lake is for many, especially those who reside in the northwest of the state, the very essence of Vermont.

Since the Abenaki first lived on its shores, Lake Champlain has been an icon, spiritually and environmentally. According to Indian legend, so great was the lake's beauty and mystery that Ojibozo, the Creator, transformed himself into Rock Dunder, a rocky outcropping off Shelburne Point, so he could gaze on the lake forever.

French explorer Samuel de Champlain was so taken with the lake's splendor on his 1609 voyage that he named it after himself.

Over the centuries, the lake has been the economic and cultural heart of Vermont, providing livelihoods for hundreds of thousands of people, world-class recreational opportunities and incomparable natural beauty.

But while exploiting the lake's bounty, we have, as Vermonters, failed to fulfill our responsibilities to sustain this precious asset for future generations.

Today is a watershed moment in Lake Champlain's history. Unless we commit ourselves to ensuring the lake's long-term integrity, it could be irreparably damaged by an overload of phosphorus, toxins and invasive species.

Environmental and economic concerns are inseparable. Yet, instead of cooperation, issues involving the lake too often deteriorate into political squabbles and conflict among stakeholders -- environmentalists, businesses, cities, you and me.

Such divisiveness is unacceptable. Only through consensus and collaboration can the lake be preserved and everyone's interests protected.

While promises to clean up the lake have been made and broken over the years, there are encouraging signs that the political will exists to make the lake a priority. Gov. Jim Douglas and his counterparts in Quebec and New York have

made public commitments to be better caretakers of this national treasure, the sixth-largest freshwater lake in the United States.

In the summer, fetid, thick mats of blue-green algae in Missisquoi Bay forced the issue onto the agenda for Quebec and Vermont, which share the northern bay. Quebec announced a cleanup plan and Douglas followed with an aggressive phosphorus reduction proposal that has a \$139 million price tag and a deadline of 2009, the quadricentennial of Champlain's momentous voyage.

Phosphorus is the greatest threat to the lake's health. In excessive quantities, this naturally occurring nutrient causes rapid growth of algae. It enters the lake from about two dozen impaired streams and rivers, manure and field runoff, back roads, wastewater, industrial discharge and stormwater from urban and suburban development.

Under his Clean and Clear Water Action Plan, Douglas wants Vermont's annual phosphorus discharge lowered from the current 344 metric tons to 268.4 metric tons, which won't make the lake pristine but will meet minimum water quality standards.

This reduction is a start. Experts say it is possible to meet the 2009 deadline, although it will be a challenge, practically and financially.

Millions of dollars have been spent on research and cleanup of Lake Champlain, thanks in large part to the congressional delegation of Sens. Patrick Leahy and Jim Jeffords. These long-time lake advocates have brought much-needed money and attention to the lake. And they will be asked for millions more.

Since alarm bells went off in the 1970s that phosphorus and mercury were threatening to turn Lake Champlain into another Lake Erie, much has been achieved.

Jeffords, then attorney general of Vermont, successfully sued the state of New York and International Paper Co. of Ticonderoga, N.Y., for dumping polluted sludge into the lake.

A ban on phosphate laundry detergents and regulations on wastewater treatment plants and industrial discharges have had an impact on phosphorus reductions.

But gains made in the last 30 years are being offset by increased stormwater -- the runoff from roads, parking lots, construction sites and fertilized lawns that can be as foul as sewage.

Sprawl, intense development along waterways and a failure by the state to meet its stormwater permitting obligations have taken a heavy toll.

If steps are taken now, it will be a decade or two before major improvements are seen in the lake's water quality. But we cannot afford to wait.

In this country, because of our negligence and inability to work together, we have witnessed the downward spiral of great water bodies, such as the Chesapeake, Lake Tahoe and San Francisco Bay.

We will not let that happen with Lake Champlain, and we have the power in our hands to make sure of this.

Too many people are depending on it. The Lake Champlain basin, an area of 8,234 square miles, is home to more than 650,000 people and supports a regional economy of more than \$9 billion. Tourism is a \$4 billion business in the basin, with millions of visitors drawn to the lake every year for sport fishing, bird watching, swimming and boating.

Protecting the lake requires constant vigilance both in Vermont and outside. The proposed tire burning by International Paper Co. is the latest tension in a shaky relationship between Vermont and this Ticonderoga plant. How many more toxins could be spewed into the air? What would this do to the lake and human health?

On the federal side, a proposal this month by the Bush administration to relax rules on mercury emissions from power plants could have dire consequences for Lake Champlain. Mercury is a serious problem in Vermont. Half the mercury in the lake floats in over the Adirondack Mountains from power plants in the Midwest.

But there are many eyes on Lake Champlain, from Vermont's congressional delegation to hundreds of volunteers. The lake is also the focus of research and education by more than 25 organizations, including the University of Vermont's state-of-the-art Rubenstein Ecosystem Science Laboratory and the adjoining ECHO science center at the lake's edge in Burlington.

Perhaps the best news for the lake's health is the public's growing understanding of the connection between what we feed the lake and its chances for survival.

We can save Lake Champlain.

BOX: Coming Monday

The slimy, green algae that coated the shores of Missisquoi Bay last summer forced the issue: Lake Champlain has too much phosphorus. Vermont must reduce this potentially dangerous nutrient or watch the premature death of the lake.

LOAD-DATE: December 18, 2003

APPENDIX B

1 of 1 DOCUMENT

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September 8, 2003 Monday

SECTION: NEWS; Pg. 1A

LENGTH: 1633 words

HEADLINE: Fighting to keep phosphorus at bay

BYLINE: Matt Crawford, Staff

BODY:

Missisquoi battleground in war against lake pollution

By Matt Crawford

SWANTON Anchored in the shallow water along the eastern shore of Missisquoi Bay and using a science kit a notch above something found in a college chemistry lab, Rob Moore takes a reading of the phosphorus in the water.

The battery-powered meter in Moore's hand displays a large .04 a measure of the milligrams of phosphorus per one liter of water. The state's water quality standard for Missisquoi Bay is .025 mg per liter, meaning Moore's test indicates phosphorus levels almost double the state's guidelines.

Missisquoi Bay, the northeastern spur of Lake Champlain, represents the front line of a lakewide battle against phosphorus. The extraordinarily high levels of phosphorus fed toxic algae blooms earlier this summer in the shallow and weed-choked bay.

Those blooms prompted health warnings and touched off a flurry of political activity in Quebec, which shares the bay with Vermont. Quebec closed beaches and developed a specific plan to deal with the problems.

The state of Vermont's response has been much more subdued than Quebec's. Vermont politicians say there are ways to make the bay cleaner, and promise a detailed response to Quebec's cleanup plan in the fall.

Scientists, politicians and environmentalists on both sides of Missisquoi Bay agree the bay is in dire need of repair. The task ahead is monumental. Vermont's Agency of Natural Resources has a fledgling plan to combat Lake Champlain's phosphorus problem, but it'll take money, teamwork from a variety of state agencies and strong direction from politicians to make it work.

"The bay, right now, is terrible," said Alec Campbell, 53, who grew up and now runs a campground in West Swanton. "The bay has silted in a lot from when I was young, and over the past several years the algae blooms have gotten worse.

Missisquoi Bay is aging fast, and I don't think we're ever going to stop it, but I think we can slow the aging process down."

The problem

Moore works for the Conservation Law Foundation, an environmental group characterized by some in state government as an extremist organization.

In this case, state and University of Vermont scientists familiar with Missisquoi Bay concur with Moore's findings.

That's similar to what we get," said Eric Smeltzer, a phosphorus expert with Vermont's Department of Environmental Conservation. "The bay exceeds the allowable phosphorus level by almost 100 percent, and it's not getting better."

Phosphorus is a naturally occurring substance used by plants and animals for growth. Human and animal waste contain the element, which can flow into the lake from sewage treatment plants, farm fields, suburban lawns and city streets.

Too much phosphorus stimulates the growth of algae, which can turn water green and murky, cause foul odors, impair drinking water supplies and deplete oxygen as the algae decay. Low oxygen levels can cause fish kills and wipe out insect and microscopic organism populations that provide the all-important base of the lake's food chain.

From where does the phosphorus come?

A Wastewater treatment plants in towns such as Swanton;

ANatural erosion;

AStormwater runoff from small urban centers;

AFarms manure and fertilizer runoff.

Far and away the biggest problem is agricultural runoff from places as varied as large-scale pig farms in Quebec and small family farms in Vermont. Smeltzer says agriculture contributes about 70 percent of the bay's yearly total load of phosphorus.

The Missisquoi Bay area has much more intensive forms of agriculture than other parts of the Lake Champlain basin, said Mike Winslow, a staff scientist for the Lake Champlain Committee. That includes a handful of large farm operations on the Vermont side of the border.

While some small rivers empty into the bay on the Canadian side, the largest tributary dumping into the bay is the Missisquoi River.

The Missisquoi rises in Lowell and the river grows in size as it flows through Westfield, Troy and North Troy before entering Canada. The river re-enters Vermont in Richford and flows west through Enosburg, Sheldon and Highgate before reaching its delta in Swanton.

In its wandering to Lake Champlain, the river slices through some of the most fertile farm lands in northern Vermont.

Adding to the problem, said Smeltzer, are unstable streambanks in the Missisquoi and its small tributaries. The eroded streambanks, from which phosphorus-rich soil tumbles into the water, are often a result of farmers allowing cows to graze too close to the water's edge or corn plantings that leave no buffer between field and streambank.

008 . 0000.00 The causeway

Ask residents around Missisquoi Bay and they'll give you one more reason for the problem: a 3,600-foot causeway at the southern end of the bay. The causeway supports the Vermont 78 bridge between West Swanton and Alburg.

I agree 100 percent that we need to stop the flow of phosphorus into the bay," said Campbell. "that's a long-term solution, but one way to help clean this place up is to remove that causeway. It restricts the back-and-forth flow of water."

The Vermont Agency of Natural Resources doesn't believe it. State studies have shown that only slight gains would be made by removing the causeway, a man-made structure state biologists say provides critical habitat for the threatened spiny soft-shelled turtle.

Canadian officials have made it clear to their Vermont counterparts that removing the causeway should be considered when construction of a new West Swanton bridge begins next year.

Even if there is a minor improvement, it'll be immediate when that causeway is gone," said Campbell, who grew up fishing and hunting the bay. "We will see restrictions come on farming practices in the region. I just hope that all this attention about our problems up here keeps a push on to remove that causeway."

The state's bridge rebuilding plan, however, doesn't call for removal of the causeway.

What can be done?

The state last year adopted a lake-wide plan to reduce phosphorus levels. Called the Total Daily Maximum Load (TMDL) plan, it is a 133-page document with 60 specific actions estimated to cost \$139 million over 14 years. Although the plan deals with the entire Champlain watershed, most of the phosphorus recommendations in the plan can be applied in the Missisquoi River basin.

If Vermont's response to Quebec's clean up plan is released this year as promised by Gov. Jim Douglas, it is expected to lean heavily on the TMDL crafted under former Gov. Howard Dean, by state-employed scientists.

The plan will work, say members of the scientific community, if politicians are willing to push it.

"The TMDL is very well done," says University of Vermont researcher Dr. Mary Watzin. "It lays out the kinds of things that need to done. What we have to next is get very specific about what can be implemented in the TMDL."

The effects of decreasing the amount of phosphorus flowing into Missisquoi Bay will be long in coming. Scientists say that if every action spelled out in the TMDL plan was followed, it would still take decades before Lake Champlain's waters have acceptable levels of the element.

The Douglas administration has yet to implement much of the year-old TMDL plan.

The state has already been accused of ignoring the TMDL's guidelines. The Conservation Law Foundation, for one, has raised objections about a permit being issued to the Swanton Village sewage treatment facility. The CLF says the permit allows for discharge in excess of guidelines outlined in the TMDL, but the state defends its permit.

"We're seeing a lot of debate between the Agency of Natural Resources and some folks in the state's environmental community about to what extent the state is including the TMDL recommendation in the permits being issued, particularly in municipal water treatment plants," said Kelly Lowry of the Vermont Natural Resources Council. "The state doesn't seem to be implementing the plan aggressively."

State scientists say they want the plan to work, but the biggest drawback is a lack of money.

"I hope that the interest and concerns about Missisquoi Bay raised recently will last past the summer recreation season and into January where the Legislature needs to hear about it," said Smeltzer, one of the main authors of the TMDL plan. "It's not going to make a lot of progress until we it's funded. That's the key."

For the TMDL recommendations to be put in place, money will have to come from both state and federal programs, said Smeltzer, including much of the \$70 million directly targeted at farming improvements.

Kim Kendall, a Vermont Natural Resources Council scientist, said any plan the Douglas administration proposes to deal with Missisquoi's problem has to come with money and it has to come soon.

The stakes are significant if we don't do something," Kendall said. "It means passing on the problem to the next generation if we delay cleanup any longer.

We have something that is amazing in our state, I can't imagine letting it go." Contact Matt Crawford at 651-4852 at mcrawfor@bfp.burlingtonfreepress.com

BOX: Problematic phosphorus

Phosphorus is a naturally occurring nutrient essential for plant growth. It is found in lawn fertilizers and manure, as well as human and other animal waste. Too much phosphorus in water causes algae blooms and excessive aquatic plant growth. These plants and the water quality problems that occur when they decompose can harm fish and other organisms.

Phosphorus levels are elevated in many parts of Lake Champlain, such as Missisquoi Bay, St. Albans Bay and the South Lake. Nuisance algae conditions are present nearly 50 percent of the time in these areas. Source: Lake Champlain Basin Program

LOAD-DATE: September 9, 2003

APPENDIX C

1 of 1 DOCUMENT

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The Burlington Free Press (Burlington, VT)

May 30, 2003 Friday

SECTION: SPECIAL SECTION; Pg. 23E**LENGTH:** 456 words**HEADLINE:** Ecological problems plague lake**BYLINE:** Matt Crawford, Staff**BODY:**

By Matt Crawford

The Abenaki called Lake Champlain "Petonbowk," which means "the waters between."

Today, Champlain is still between -- somewhere between a pristine natural resource and a polluted body of water with a laundry list of environmental ills.

The lake's problems come from a number of sources: E. coli bacteria from animal and human waste; phosphorus from stormwater runoff of cities and farms; non-native species, such as zebra mussels and water chestnut; and toxic pesticides, herbicides and mercury that often arrive in the Champlain basin from industrial sites hundreds of miles away or are washed into the basin with stormwater.

While thousands of people fish, swim, water-ski, paddle and play in the big lake each year, they do it in a waterbody that's been declared an "impaired waterbody," which means the lake does not meet one or more of Vermont's water quality standards.

Mike Winslow, the staff scientist for the Lake Champlain Committee, a citizens advocacy group, said the state identifies an impaired waterbody by three criteria: swimmable, fishable and drinkable.

"Lake Champlain suffers in the fishable category because of high mercury and PCB levels in fish," Winslow said. "It's impaired in the swimmable category by algae blooms due to nutrient loading."

The biggest source of phosphorus for the lake was raw sewage 30 years ago. Treatment plants have eliminated raw sewage and cut down on the phosphorus being discharged, leaving the major sources of phosphorus as farms and urban stormwater runoff, according to a 1999 analysis for the Lake Champlain Basin Program.

"We've also beaten back water chestnut, to some extent, in the southern end of the lake," Winslow said. "We do recognize that on a lot of things we're better off now than we were 10 or 15 years ago."

Still, the lake's beaches are often closed in summer months because of high levels of E. coli bacteria, and in recent summers a toxic blue-green algae has bloomed and been blamed for the death of several dogs.

Thumb-sized zebra mussels are abundant in the lake and grow so thickly they can smother virtually any hard surface. Their sharp shells cut swimmers' feet, and the colonies they form can clog water intake pipes, pushing out and killing native mussels.

Poisons and pesticides show up in the big lake occasionally but do not pose much of threat to overall water quality.

"There's no real great evidence of herbicides' or pesticides' having a direct toxic effect on animals in Lake Champlain," said Jurij Homziak of the University of Vermont, "but as our population grows we have the potential threat of chemicals' affecting water quality."

Contact Matt Crawford at 651-4852 or mcrawfor@bfp.burlingtonfreepress.com

LOAD-DATE: May 31, 2003