



August 24, 2020

Dennis Deziel
Acting Regional Administrator
EPA New England Region
1 Congress Street, Suite 1100 Boston, MA
02114-2023

RE: Petition for a Determination that Certain Commercial, Industrial, Institutional, and Multi-Family Residential Property Dischargers Contribute to Water Quality Standards Violations in the Neponset River Watershed, Massachusetts, and that NPDES Permitting of Such Properties is Required.

Dear Regional Administrator Deziel,

As the Regional Administrator of the EPA New England Region (“EPA Region 1”), the Conservation Law Foundation (“CLF”) hereby petitions you for a determination pursuant to 40 C.F.R. § 122.26(f)(2) that discharges of stormwater that are not currently subject to direct permitting by EPA from privately owned commercial, industrial, institutional,¹ and multi-family residential² real properties of one acre or greater in the Neponset River Watershed (“Contributing Discharges”) contribute to violations of water quality standards in the Neponset River and require permits under the National Pollutant Discharge Elimination System (“NPDES”).

¹ For the purposes of this Petition, the “institutional” land use category encompasses properties in the MassGIS “Urban Public/Institutional” land use code that are privately owned.

² For the purposes of this Petition, the “large multi-family residential” land use category encompasses properties in the MassGIS “Multi-Family Residential” land use code that are privately owned and include privately owned, include five or more housing units (excluding those in which 50% or more of the units are restricted at 80% Area Median Income or below), and are not currently subject to regulation under the NPDES permit program in order to restore and protect the water quality of the Neponset River watershed.

As set forth below, the facts and the law as developed by the United States Environmental Protection Agency (“EPA”) require that these unpermitted discharges must be subject to regulation under the NPDES permit program in order to restore and protect the water quality of the Neponset River watershed.

INTRODUCTION

CLF is a nonprofit organization working to protect the environment and the citizens of the New England area. One of the goals of the organization is to restore the health of New England’s waterways, many of which are failing to meet basic water quality standards for public health and recreation. The CLF Clean Air and Water Program is a leader in advocating for stormwater regulation by states and EPA under the Clean Water Act to remedy severe water pollution and flooding problems throughout New England. CLF has petitioned EPA under Section 402(p)(2)(E) of the Clean Water Act, 33 U.S.C. § 1342(p)(2)(E), to require cleanup of stormwater discharges from numerous existing industrial and commercial properties in the Long Creek, Maine watershed,³ and has litigated successfully in the Vermont Supreme Court and agency tribunals to require the state’s Agency of Natural Resources to extend its Clean Water Act permitting authority to existing, unregulated stormwater pollution discharges in five badly polluted watersheds surrounding Burlington, Vermont.⁴

Across New England, stormwater pollution has emerged as the major threat to the health of our rivers, lakes, and streams. Some of our most treasured waters—used by millions for recreation, fishing, and other tourism—are suffering from poor water quality and unacceptably high public health risks due to pathogens brought to the waters by stormwater runoff flowing off parking lots and other paved areas.

Pathogens have well documented negative health effects on humans. Public information from MassDEP and EPA cites significant impacts observed in humans and pets from contact with recreational waters, ingestion of drinking water, and consumption of filter-feeding

³ See CLF’s *Petition For a Determination that Existing, Non-De Minimis, Un-Permitted Stormwater Discharges from Impervious Surfaces into Long Creek South Portland, Maine Require a Clean Water Act Permit*, filed with Robert Varney, Administrator, EPA Region 1, March 6, 2008.

⁴ See *In re Stormwater NPDES Petition*, 2006 VT 91; Judgment Order Docket No. 14-1-07 Vermont Environmental Court (Aug. 28, 2008).

shellfish.⁵ Excessive pathogens also require the expensive disinfection to produce potable water supplies, which in turn generates disinfection byproducts that further harm human health.⁶ Specifically, fecal coliform bacteria and Escherichia coli bacteria (“E. coli”), both found in high levels the Neponset River in 2002 and 2012 respectively, are known health risks to humans.⁷ The TMDL highlights these health risks as the underlying reasons for studying bacteria levels in water sources and reducing levels where necessary.

Water quality conditions in the Neponset River Watershed, in Massachusetts, and around the nation demonstrate the urgent need for leadership in residual designation authority implementation to remedy water quality impairments caused in whole or in part by existing poorly controlled and uncontrolled stormwater discharges. EPA has previously provided convincing documentation of the need for residual designation authority to control stormwater discharges in the Neponset River Watershed.⁸ EPA has also previously identified specific categories of large unpermitted sources of stormwater runoff as among the primary contributors of stormwater discharges.⁹ EPA must act to bring these polluters into the NPDES permitting program and prevent further degradation of the Neponset River.

FACTUAL BACKGROUND

The Neponset River has Been Polluted by Stormwater Runoff Discharges Containing High Levels of Bacteria, Specifically E. Coli, that Prevent the River from Attaining and Maintaining its Designated Water Quality Levels.

The Neponset River is an approximately 30-mile long river located in Eastern Massachusetts, beginning in Foxborough and flowing through to the area of Dorchester and Quincy before draining into the Boston Harbor.¹⁰ A 120-square mile area drains into the Neponset River, affecting fourteen cities and towns geographically.¹¹ The Neponset River is a

⁵ Addendum to Neponset River Basin TMDL, 2012, at 3, 7.

⁶ *Id.*

⁷ Addendum to Neponset River Basin TMDL, 2012, at 3, 7.

⁸ Neponset River Basin TMDL, 2002, at 3; *see also* Addendum to Neponset River Basin TMDL, 2012, 3, 7.

⁹ Neponset River Basin TMDL, 2002; *see also* Addendum to Neponset River Basin TMDL, 2012, Attachment 2: Response to Comments, at 18.

¹⁰ Neponset River Watershed Association, <https://www.neponset.org/>.

¹¹ *Id.*

drinking water source for about 120,000 people, and the watershed in general is home to about 330,000 people, in addition to a variety of mammals, fish, shellfish, amphibians, insects, plants, and algae.¹² Because much of the Neponset River Watershed area has been urbanized or made residential, there are many impervious surfaces which lead to the problems associated with stormwater runoff; because the water runs off into the river without any filtration, it contains harmful bacteria and decreases water quality.¹³

Throughout the watershed, stormwater runoff is a significant contributor to bacteria in the Neponset River, as it picks up pollutants such as garbage, pet waste, and wildlife waste and deposits them into the river.¹⁴ In fact, most of the bacteria sources in the watershed are believed to be stormwater related.¹⁵ The 2012 Addendum to the original 2002 Neponset River Basin TMDL still lists stormwater runoff as one of the most significant sources of pollution in the Neponset River.¹⁶ Significantly, the 2012 Addendum identified four impaired segments of the Neponset River, in addition to the segments identified in 2002.¹⁷

EPA's Approved TMDLs Demonstrate that Stormwater Runoff from Unpermitted Sources Contribute to Continuing Water Quality Standards Violations

Based upon robust sampling and studies of the Neponset River, conducted in part by the Neponset River Watershed Association,¹⁸ MassDEP and EPA developed a TMDL in 2002 that applies to pathogens in the Neponset River Watershed.¹⁹ Subsequently, in 2012, MassDEP and EPA developed an updated version of the 2002 TMDL; in this subsequent version, 4 additional segments of the Neponset River were added as impaired segments, in addition to the original segments.²⁰ Further, the 2012 Addendum shifted the comparison bacteria used to E.coli,

¹² *Id.*

¹³ Addendum to the Neponset River Basin TMDL, 2012, at 12-13.

¹⁴ Neponset River Basin TMDL, 2002, at 39.

¹⁵ Neponset River Basin TMDL, 2002; *see also* Addendum to Neponset River Basin TMDL, 2012, Attachment 2: Response to Comments, at 18.

¹⁶ *Id.*

¹⁷ Neponset River Basin TMDL, 2002, at 4.

¹⁸ Neponset River Watershed Association, Water Quality Data, <https://www.neponset.org/your-watershed/cwmn-data/>.

¹⁹ Neponset River Basin TMDL, 2002; *see also* Addendum to Neponset River Basin TMDL, 2012.

²⁰ Addendum to Neponset River Basin TMDL, 2012, at 4.

considered to be a better predictor of water quality by 2012.²¹ Each of the four newly identified impaired segments includes stormwater runoff as one of the main sources of pollution; in fact, stormwater runoff is cited as a significant contributor to bacterial pollution, due to the increased amount of impervious surfaces in urbanized and residential areas.²² Despite that change, the 2012 Addendum makes clear that the impaired segments identified in 2002 are still impaired under a standard based on the E. coli bacteria.²³

The TMDL and decades of established science demonstrate that stormwater is exposed to pollutants including pathogens on impervious surfaces.²⁴ The 2002 TMDL states that the current methods used to control bacterial pollution in the Neponset River originating from stormwater are inadequate.²⁵ The TMDL additionally states the need to implement a comprehensive system that will control the pollution affecting the Neponset.²⁶ The TMDL also indicates that the concentrations of pollutants, particularly bacteria in the form of fecal coliform and E. coli, have to be reduced by at a minimum 90% and in some places up to 99% to comply with the TMDL and meet the state's Water Quality Standards (WQS).²⁷

STATUTORY AND REGULATORY FRAMEWORK

The NPDES Program is Critical to Restoring Clean Rivers

Congress established the Clean Water Act ("CWA") "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a).²⁸ To achieve these objectives, the CWA prohibits the "discharge of a pollutant"²⁹ by "any person"³⁰

²¹ *Id.*

²² Addendum to Neponset River Basin TMDL, 2012, at 6.

²³ *Id.*, at 1.

²⁴ Neponset River Basin TMDL, 2002, at 37-38.

²⁵ *Id.*, at 38.

²⁶ *Id.*

²⁷ Addendum to Neponset River Basin TMDL, 2012, at 14.

²⁸ The United States Supreme Court has recognized that this objective incorporates "a broad, systematic view of the goal of maintaining and improving water quality," and that the word "integrity," as intended by Congress in the Act's 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 (1972) (quoting H.R. Rep. No. 92- 911, at 76.)

²⁹ In pertinent part, the Act defines the term "discharge of a pollutant" to mean "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12)(A); 40 C.F.R. § 122.2 (stating that this definition

from any “point source”³¹ into waters of the United States except when the discharge is authorized pursuant to a NPDES permit. 33 U.S.C. § 1311(a). (“Except as in compliance with ... section ... 1342 ... of this title, the discharge of any pollutant by any person shall be unlawful.”); 33 U.S.C. § 1342(k) (“Compliance with a permit issued pursuant to this section shall be deemed compliance ... [with section 1311] ... of this title.”).

The CWA further directs states to establish minimum WQS sufficient to carry out the overall purpose of the Act. 33 U.S.C. § 1313; 40 C.F.R. § 131.2. 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 those uses.” 40 C.F.R. § 131.2. Massachusetts has established, and EPA Region 1 has approved, WQs pursuant to this requirement. M.G.L c. 21, § 27(3), (5); 14 CMR § 4.00 *et seq.*

The CWA also requires states to identify impaired water bodies that do not meet WQS after the implementation of technology-based controls, and to prioritize and schedule them for development of TMDLs. 33 U.S.C. § 1313(d); 40 C.F.R. § 130.7. Each TMDL is designed to reduce the pollution flowing to the water body covered by the TMDL from the entire land area that eventually drains into that water body. This area is referred to as the “watershed” for that water body. TMDLs set the maximum pollutant load that a body of water can receive while still maintaining the WQs, and TMDLs must account for all contributing sources of pollution. 33 U.S.C § 1313(d).

The CWA and its implementing regulations require that TMDLs include: (1) the “waste load allocation” (WLA), or the portion of the pollutant load allocated to existing, or future, “point sources”; (2) the “load allocation” (“LA”), or the portion of pollutant load allocated to nonpoint sources; and (3) a “margin of safety” that considers any lack of knowledge concerning the relationship between pollution controls and water quality. 33 U.S.C. § 1313(d); 40 C.F.R. §§ 130.7(c)(1), 130.2(g), (h) & (i).

“includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man.”).

³⁰ The term “person” is defined to mean “an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.” *Id.* §1362 (5).

³¹ In pertinent part, the CWA defines “point source” as “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit...from which a pollutant is or may be discharged.” *Id.* § 1362(14).

EPA guidance explains that “in many cases, the TMDL analysis is the trigger for determining the source(s) of pollutants” to a water body.³² Indeed, in other guidance EPA notes the importance of determining the source(s) of pollutants to affected water bodies as part of the TMDL development process: “It is also important to understand the stormwater conveyance methods for each stormwater source in a watershed to determine whether the source is discharging to or affecting the impaired waterbody.”³³

It is well settled that “[s]torm sewers are established point sources subject to NPDES permitting requirements.” *Environmental Defense Center v. U.S. Environmental Protection Agency*, 319 F.3d 398, 407 (9th Cir. 2003) (citing *NRDC v. Costle*, 568 F.2d 1369 at 1377 (D.C. Cir. 1977)). In fact, EPA expressly recognized more than a decade ago that “[f]rom a legal standpoint [] most urban runoff is discharged through conveyances such as separate storm sewers or other conveyances which are point sources under the CWA.” *National Pollutant Discharge Elimination System (NPDES) Application for Storm Water Discharges*, 55 Fed. Reg. 47,990, 47,991 (Nov. 16, 1990). NPDES permits, “while authorizing some water pollution, place important restrictions on the quality and character of that licit pollution.” *Waterkeeper Alliance, Inc. v. United States E.P.A.*, 399 F.3d 486, 491 (2d Cir. 2005). Those restrictions include categorical technology-based effluent limitations that apply to all dischargers, and more stringent individualized limitations as necessary to meet minimum WQS. See 33 U.S.C. § 1311(b).

Congress Expressly Provided for Residual Designation of Unpermitted Stormwater Polluters Under the Clean Water Act

In 1987, in recognition of the serious environmental problems caused by stormwater pollution and out of frustration with EPA’s failure to control stormwater discharges, Congress amended the NPDES provisions for stormwater, directing EPA to phase in a comprehensive

³² U.S. Env’tl. Prot. Agency, *Water Quality Standards Handbook, Chapter 7: Water Quality Standards and the Water Quality-based Approach to Pollution Control*, at 6 (Jan. 2015), <https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter7.pdf>.

³³ U.S. Env’tl. Prot. Agency, *TMDLs to Stormwater Permits Handbook (DRAFT)*, § 3.3.2 (Nov. 2008), https://www.epa.gov/sites/production/files/2015-07/documents/tmdl-sw_permits11172008.pdf.

national regulatory program for stormwater discharges. 33 U.S.C. §§ 1342(p)(4), (6).³⁴ Though these amendments imposed a limited moratorium on NPDES permitting for certain discharges composed entirely of stormwater, the 1987 Congress singled out five categories of high-priority stormwater discharges for immediate and ongoing regulation through NPDES permitting. *Id.* §§1342(p)(1), (p)(2)(A)-(E). These focused primarily on well-documented and significant sources of stormwater pollution, such as runoff associated with industrial activities and large urban areas. Congress, however, also created a provision for other stormwater discharges by directing EPA to require NPDES permits for any stormwater discharge that the Administrator or the State Director determines “contribute[s] to a violation of a water quality standard or is a significant contributor of pollution to waters of the United States.” 33 U.S.C. § 1342(p)(2)(E); 40 C.F.R. § 122.26(a)(1)(v).

EPA’s Phase I stormwater rule, while focused on industrial polluters and urban areas, continued to recognize the need, pursuant to CWA § 402(p)(2)(E), for “immediate permitting” of stormwater discharges that contribute to violations of WQS. *National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges*, 55 Fed. Reg. 47990, 47993 (November 16, 1990). This mandate to regulate stormwater discharges that contribute to WQS violations is commonly known as EPA’s Residual Designation Authority (“RDA”).

In its Phase II stormwater rule, EPA affirmed the importance of immediately regulating stormwater discharges that contribute to water quality impairments. *See Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharge*, 64 Fed. Reg. 68,721, 68,781 (Dec. 8, 1999), codified at 40 CFR §§ 122.26(a)(1)(v) and 122.26(a)(9)(i)(D). *See also Env’t’l Def. Ctr. v. EPA*, 344 F.3d 832, 875-76 (9th Cir. 2003) (upholding inclusion of residual

³⁴ Congressional dissatisfaction with the slow pace of NPDES implementation for stormwater is evident in the legislative history of the 1987 amendment, such as the following statement from Senator Durenberger during the 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, E.P.A. 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 provision because I believe 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).

designation authority against industry challenge). The Phase II rule went a step further, however, and authorized EPA to issue RDA discharge-permit determinations “on a geographic or a categorical basis within identified geographic areas such as a State or watershed.” 64 Fed. Reg. 68, 736 (codified at 40 C.F.R. § 122.26(a)(9)(i)(D)). This action inherently “expanded [the agency’s] authority to issue permits on a significantly broader basis, for wholesale categories of discharges in a geographic area.”³⁵ EPA explained that this broader permitting authority would “facilitate and promote” the overarching goal of “coordinated watershed planning.”³⁶

Importantly, exercise of “the Agency’s residual designation authority is not optional.”³⁷ Once a discharge, or a category of discharges, is determined to be contributing to a violation of water quality standards, the operator(s) of those discharges “shall be required to obtain a [NPDES] permit.” 40 C.F.R. § 122.26(a)(9)(i)(D). *See also* 33 U.S.C. § 1342(p)(2)(E) (requiring NPDES permits for discharges composed entirely of stormwater that are determined to contribute to a violation of a water quality standard). As EPA has explained, and consistent with the legislative history of the 1987 Amendments to the Clean Water Act, “designation is appropriate as soon as the adverse impacts from storm water are recognized.”³⁸ EPA has not defined a threshold level of pollutant contribution that triggers such a finding, but the agency has acknowledged that it “would be reasonable to require permits for discharges that contribute more than *de minimis* amounts of pollutants identified as the cause of impairment to a water body.”³⁹ This EPA analysis has been recognized as a valid interpretation of the RDA threshold by the Vermont Supreme Court.⁴⁰

RDA determinations may be made directly at the initiative of the NPDES permitting authority, or result from the development of a wasteload allocation in a TMDL analysis. *See* 40 C.F.R. § 122.26(a)(9)(i)(C). Additionally, any person may petition the “Director” or “Regional Administrator” to designate a discharge or category of dischargers under RDA. 40 C.F.R.

³⁵ *In re Stormwater NPDES Petition*, 2006 VT 91, ¶ 12.

³⁶ 64 Fed. Reg. 68, 739. *See also In re Stormwater NPDES Petition*, 2006 VT 91, ¶ 12.

³⁷ *In re Stormwater NPDES Petition*, 910 A.2d 824, 835 (Vt. 2006).

³⁸ *Letter from Tracy Mehan, III, EPA Assistant Administrator to Elizabeth McLain, Secretary, Vermont Agency of Natural Resources re: guidance on issues related to permits for discharges to impaired waters*, Sept. 16, 2003 (citing James R. Elder, Director EPA Office of Water Enforcement and Permits, *Designation of Stormwater Discharges for Immediate Permitting* at 2 (Aug. 8, 1990)) (“Mehan Letter”).

³⁹ *See id.* at 3.

⁴⁰ *In re Stormwater NPDES Petition*, 2006 VT 91, ¶ 28, n.6.

§ 122.26(f)(2).⁴¹ Once an RDA petition is submitted to the Director⁴² or Regional Administrator, a final decision on the petition must be made within 90 days of its receipt. 40 C.F.R.

§ 122.26(f)(5).

ANALYSIS

The Contributing Discharges Require an NPDES Permit Pursuant to CWA §402(p)(2)(E) and EPA Regulations Because They Contribute to Ongoing Violations of WQS

The CWA and EPA's implementing regulations require federal permits for all existing point source discharges composed entirely of stormwater that contribute to WQS violations. 33 U.S.C. § 1342(p)(2)(E); 40 CFR §§ 122.26(a)(1)(v), 122.26(a)(9)(i)(C) & (D). MassDEP and EPA have found that stormwater runoff from highly impervious land uses like commercial, industrial, institutional, and large multi-family residential is a significant contributor to these failures. Given the consistent, unanimous, and unequivocal nature of these findings, the Regional Administrator must determine pursuant to 33 U.S.C. § 1342(p)(2)(E) and 40 CFR §§ 122.26(a)(1)(v) that the stormwater pollution from Contributing Discharges contribute to WQS violations in the Neponset River, and issue notice to all persons responsible for these that they must obtain a NPDES discharge permit. Based on recent analysis, CLF believes that the class of Contributing Dischargers pursuant to this permit should include all commercial, industrial, institutional, and five or more unit multi-family residential real properties (excluding those multi-family residential properties in which 50% or more of the units are restricted at 80% Area Median Income or below), of one acre or greater within the Neponset River Watershed. Stormwater pollution from the Contributing Discharges is contributing to WQS violations in the Neponset River Watershed, and it would be arbitrary and capricious to find otherwise.

⁴¹ See also *In re Stormwater NPDES Petition*, 2006 VT 91, ¶¶ 12-14 (RDA petitions need not be made on a case-by-case basis, but may seek designation for whole classes of discharges). This petition authority is also compelled by Congress's mandate that EPA and the states provide for and encourage "public participation in the development...and enforcement of any regulation, standard, effluent limitation, plan or program" established under the Act. U.S.C. § 1251(e).

⁴² The term "Director" means either the EPA Regional Administrator or the director of the state NPDES permitting authority, as the context requires. 40 C.F.R. § 122.2. Where EPA retains the authority to take certain actions even when there is an approved state program, as it does with RDA designation, 40 C.F.R. § 122.26(a)(9)(i)(C), the term Director may also mean the Regional Administrator. *Id.*

Many areas of the Neponset River fail to meet Massachusetts's WQS

The TMDL produced for the Neponset River Watershed in 2002, as well as the Addendum produced in 2012, indicate the presence of bacteria in the water.⁴³ Specifically, these documents identified WQS violations from the bacterial fecal coliform,⁴⁴ primarily the species *E. coli*.⁴⁵ The Neponset River's high levels of commercial, industrial, institutional, and multi-family residential land uses creates a high percentage of impervious cover, leading to the problem of contamination caused by stormwater runoff.⁴⁶ Impervious areas, such as pavement, cut off the natural capacity that vegetation and soil has to filter stormwater runoff before it enters the river. The TMDL recognizes that an increase in urbanization leads to an increase in impervious areas, and a decrease in the effectiveness of natural processes in pollution prevention.⁴⁷ As a result of ineffective pollution prevention and increased levels of stormwater runoff, none of the Neponset Watershed segments identified in the TMDL or the addendum have achieved primary or secondary recreational use status in line with the WQS.⁴⁸

The TMDLs for the Neponset River demonstrate that WQS cannot be met without significant reductions in bacterial pollution from stormwater runoff.⁴⁹ The TMDLs indicate excessive concentrations of fecal coliform and *E. coli* levels.⁵⁰ The presence of these bacteria indicates contamination of the water by the feces of warm-blooded animals, which gets collected by stormwater, and then enters the waterbody in that manner.⁵¹ Water quality sampling from both the Neponset River Watershed Association and MassDEP indicates these concentrations, requiring action to address the issue of water quality.⁵²

⁴³ Neponset River Basin TMDL, 2002; *see also* Addendum to Neponset River Basin TMDL, 2012.

⁴⁴ Neponset River Basin TMDL, 2002, at 31.

⁴⁵ Addendum to Neponset River Basin TMDL, 2012, at 4-5.

⁴⁶ *Id.* at 6.

⁴⁷ Neponset River Basin TMDL, 2002, at 31.

⁴⁸ Addendum to Neponset River Basin TMDL, 2012, Attachment 2: Response to Comments, at 18.

⁴⁹ Neponset River Basin, TMDL, 2002, at 6.

⁵⁰ Neponset River Basin TMDL, 2002; *see also* Addendum to Neponset River Basin TMDL, 2012.

⁵¹ Neponset River Watershed Association, *Reducing Polluted Stormwater Runoff*, <https://www.neponset.org/projects/stormwater-pollution/>.

⁵² Addendum to Neponset River Basin TMDL, 2012, at 1.

There are significant mitigation benefits of addressing the problem of pollution due to stormwater runoff for climate change overall.

The problem of stormwater pollution not only affects the water quality of the Neponset River, but also the citizens of Massachusetts who live near and utilize the river. Acting to address this issue will not only mean following the law under the CWA, but will also have mitigation benefits in terms of global warming. These benefits will come about because of some of the solutions and best practices useful to address stormwater runoff. The Intergovernmental Panel on Climate Change reports that human activities are estimated to cause an increase in global warming, and that the impact of global warming on ecosystems and humans will be felt more heavily if the warming increases by even 1.0 °C.⁵³ The connection that exists between the problem of stormwater runoff causing pollution and climate change lies in a land use solution: land restoration.⁵⁴ The IPCC report notes the necessity of removing carbon dioxide from the atmosphere to reduce global warming, and cites one possible solution, among others, as land restoration.⁵⁵ Related to this possible solution for carbon dioxide removal with the goal of reducing global warming is a solution for stormwater runoff pollution: implementing land uses that bring soil and vegetation back rather than impervious surfaces.⁵⁶ Because impervious surfaces are a barrier to the natural filtration of stormwater runoff, one solution is to put in rainwater gardens and soil to catch the stormwater and allow for that filtration. This type of solution, if implemented to reduce the amount of impervious surfaces in the Neponset River Watershed, would not only help to improve water quality but would also have a residual benefit of promoting a reduction of global warming and climate change.

The EPA has also recognized the relationship between stormwater runoff and climate change.⁵⁷ Climate change increases the intensity of storms over time, which can overload

⁵³ Intergovernmental Panel on Climate Change, *Summary for Policymakers*, <https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/>.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ Neponset River Watershed Association, *Reducing Polluted Stormwater Runoff*, <https://www.neponset.org/projects/stormwater-pollution/>.

⁵⁷ *Climate Adaptation and Stormwater Runoff*, EPA (Sep. 29, 2016) <https://www.epa.gov/arc-x/climate-adaptation-and-stormwater-runoff>.

deficient sewer systems, thus exacerbating pollution issues in local waterways.⁵⁸ Recognizing the connection between increased rainfall and thus increased stormwater runoff, the EPA recommends applying green infrastructure strategies such as permeable pavement to act as a step in filtration that impervious surfaces prohibit.⁵⁹ Observed climate changes in the Northeast region recorded a 10% increase in general precipitation over the past hundred years, and particularly extreme precipitation events have increased in the Northeast more than any other region in the United States.⁶⁰ It is projected that the heavy precipitation and sea level rise trends will continue in the Northeast,⁶¹ increasing the 1% annual chance floodplain area by more than 30% at the end of the century.⁶² Given the connection between climate change effects in the Northeast, stormwater runoff, and resulting WQS-violating fecal coliform and E. coli levels, EPA would be well within its scope of powers to implement an NPDES program for Contributing Discharges.

Residual Designation Should Include, as a Class, All Existing Non-Permitted Commercial, Industrial, Institutional, and Certain Large Multi-Family Residential Property Dischargers with One or More Acres of Impervious Surface Area Within the Neponset River Watershed.

To achieve the TMDL required reductions in the Neponset River, reductions in stormwater bacterial loads, based upon land use, must be achieved throughout the watershed.⁶³ In the Neponset River Watershed, EPA, MassDEP, and the Neponset River Watershed Association have determined that stormwater discharges from unpermitted land uses including commercial, industrial, institutional, and large multi-family residential property

⁵⁸ *Id.*

⁵⁹ *Climate Impacts on Water Quality*, EPA (Jun. 27, 2019), <https://www.epa.gov/arc-x/climate-impacts-water-quality#tab-1>.

⁶⁰ Horton, R., G. Yohe, W. Easterling, R. Kates, M. Ruth, E. Sussman, A. Whelchel, D. Wolfe, and F. Lipschultz, *Ch. 16: Northeast. Climate Change Impacts in the United States: The Third National Climate Assessment*, U.S. Global Change Research Program, 372, 380 (2014), http://s3.amazonaws.com/nca2014/low/NCA3_Full_Report_16_Northeast_LowRes.pdf?download=1.

⁶¹ U.S. Global Change Research Program, *Climate Science Special Report: Fourth National Climate Assessment, Volume I*, 26 (2017), (Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock eds.), https://science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf.

⁶² *Id.* at 242.

⁶³ Neponset River Basin, TMDL, 2002, at 6.

dischargers contribute to the non-attainment of WQS in the Neponset River Watershed.⁶⁴ CLF petitions EPA at this time to exercise its Residual Designation Authority in order to bring currently unregulated landowners in the Contributing Discharge categories with parcels of one acre or more into the NPDES permitting program.

Aside from fulfilling the CWA's statutory and regulatory mandate for immediate permitting of stormwater discharges that contribute to non-attainment of water quality standards, residual designation of the Contributing Discharges will also meet the CWA, EPA, and the Commonwealth's goals of reducing bacterial discharges to the Neponset River for public health and ecology and restoring the watershed to a healthy state.⁶⁵ Furthermore, EPA would assist cities and towns with restoring Neponset waters to WQS levels through the NPDES permitting program by supplementing the Neponset TMDL Implementation Plan from 2002, which the cities and towns consider "so vague as to provide no meaningful guidance."⁶⁶

Residual designation of these impervious surfaces as a category will facilitate this process in at least two ways. First, class designation would fairly and equitably assign responsibility for non-attainment among Contributing Discharges and thereby ensure the widespread participation that will be necessary for success. Second, class designation would also provide an appropriate regulatory mechanism for implementation of future restoration plans.

Absent RDA designation, an inordinate regulatory burden for attainment of water quality standards falls only upon those stormwater dischargers (including municipal separate storm sewer systems, certain industrial activities, and construction projects) that currently fall under CWA jurisdiction. *See, e.g.*, 33 U.S.C. § 1342(p)(3)(A) (permits for stormwater discharges associated with industrial activity, including construction activities, must meet the CWA §301(b)(1)(C) mandate to include any more stringent limitation necessary to meet water quality standards). This is not only patently unfair, but also—as indicated by the long-standing water

⁶⁴ Neponset River Basin TMDL, 2002; *see also* Addendum to Neponset River Basin TMDL, 2012, Attachment 2: Response to Comments, at 18.

⁶⁵ *Id.*

⁶⁶ Addendum to Neponset River Basin TMDL, 2012, Attachment 2: Response to Comments, at 18.

quality violations in the Neponset River—would be unlikely to result in attainment of WQS. Regulation of all Contributing Discharges is therefore not only legally required, but also the most equitable, efficient, and effective means of ensuring that the Neponset River meets its WQS.

While the sufficiency of other pollution reduction programs is not a relevant factor in a Residual Designation determination under 33 U.S.C. § 1342(p)(2)(E), it is important to note that residual designation of the Contributing Discharges would only serve to supplement and enhance the efficacy of existing NPDES permit programs affecting the Neponset River watershed. In Massachusetts, the general permit for small municipal separate storm sewer systems (“MA Small MS4 Permit”) requires permittees to develop a Stormwater Management Plan (SMP) designed to meet their relevant TMDL pathogen loading capacity and meet the terms and conditions of the permit.⁶⁷

Crucially, however, the SMP requirements within the MS4 for municipalities in the Neponset River Watershed remain limited by the municipalities’ toolkit of bylaws and ordinances, changes to which may be difficult to draft and promulgate if a specific outcome is not required by state or federal law.⁶⁸ The SMP requirements do not specifically address commercial, industrial, private institutional, and large multi-family residential sources. Nor do they contain different, or any specific, obligations of new or existing properties with significant impervious surface area, beyond a requirement that permittees track and offset pollutant load increases due to development.⁶⁹

If EPA intends the MS4 permit program to result in a meaningful reduction in pathogen loading to the Neponset River Watershed, it must require a permitting program for significant impervious surface landowners in the commercial, industrial, institutional, and multi-family residential sectors that is designed to drive participation in, and collaboration with, MS4 communities’ SMPs. A permitting program from EPA in response to this Petition can and should encourage collaboration among property owners and communities to construct regional treatment systems which create efficiencies by treating stormwater runoff from multiple sites

⁶⁷ 2016 MA Small MSA General Permit, 10-12 (MS4 Permit).

⁶⁸ *Id.* at 44.

⁶⁹ *Id.* at 45.

in one system. The Town of Milford, for example, recently used Clean Water Act § 319 grant funding to construct a stormwater treatment wetland to treat runoff from a 70 acres drainage area containing multiple public and private parcels.⁷⁰ Requiring stormwater permits for individual impervious landowners within each municipality would help meet the goals of the permit program by requiring unregulated significant contributors to stormwater runoff pollution to take affirmative action to be part of the solution.

CONCLUSION

The severe degradation of the Neponset River's water quality epitomizes the impact of urban stormwater discharges upon major waterways in Massachusetts. EPA has known for decades that the Contributing Discharges contribute to the Neponset's failure to meet water quality standards. CLF hereby petitions EPA to implement a NPDES permitting program for the Contributing Discharges. Further delay in regulating these sources is no longer defensible—legally, environmentally, or as a matter of public policy and equitable regulation.

Accordingly, this petition must be granted and EPA Region 1 must immediately develop NPDES permits for the Contributing Discharges. We look forward to your response, and to working with you to improve water quality in the Neponset River and its Watershed.

Respectfully submitted this 24th day of August, 2020.

On behalf of Conservation Law Foundation,



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⁷⁰ See Horsley Witten Group, Constructed Stormwater Wetland in Milford, <https://horsleywitten.com/stormwater-wetland/> (description of project by the project's engineering firm).