

**Conservation Law Foundation
New Hampshire Rivers Council
Cobbetts Pond Improvement Association**

February 20, 2009

Ms. Thelma Murphy (murphy.thelma@epa.gov)
Office of Ecosystem Protection (CIP)
U.S. Environmental Protection Agency
One Congress Street
Boston, MA 02114-2023

Re: Draft NPDES General Permit for Discharges From Small Municipal Separate Storm Sewer Systems Located in the State of New Hampshire (NHR040000)

Dear Ms. Murphy:

The Conservation Law Foundation, the New Hampshire Rivers Council, and the Cobbetts Pond Improvement Association appreciate the opportunity to comment on the Draft NPDES General Permit for Discharges From Small Municipal Separate Storm Sewer Systems Located in the State of New Hampshire (NHR040000) (“draft permit”).

Founded in 1966, the Conservation Law Foundation (“CLF”) is a member-supported environmental advocacy organization that works to solve the problems threatening our natural resources and communities in New Hampshire and throughout New England. Among those problems, CLF has worked, and continues to work, to promote effective regulations and strategies to reduce and minimize the significant impacts of stormwater pollution.

Incorporated as a non-profit organization in 1993, the New Hampshire Rivers Council (“Rivers Council”) is New Hampshire’s only statewide conservation organization wholly dedicated to the protection and conservation of New Hampshire rivers. The Rivers Council works to educate the public about the value of the state’s rivers, designate rivers in the state’s protection program, advocate for strong public policies and wise management of New Hampshire’s river resources, and strengthen local voices for river protection.

Founded in 1949, the Cobbetts Pond Improvement Association (“CPIA”) is a non-profit corporation whose members either live on or have deeded access to Cobbetts Pond. CPIA members are committed to the protection and preservation of Cobbetts Pond and its watershed. Cobbetts Pond is a 302-acre spring fed water body located in Windham. Route 111, 111A and I-93 are located in close proximity to the lake. *See* Attachment 1. For the past 19 years, the CPIA has participated in the NH Volunteer Lake Assessment Program which has assisted in monitoring the lake’s water quality. Over this period of time, the lake has shifted from oligotrophic to eutrophic, from the best classification to

the worst. As a result, the EPA has classified Cobbetts Pond as an impaired water body. The CPIA recently received an EPA Section 319 Restoration Grant to develop a lake restoration plan.

I. General Comments

“Stormwater runoff is one of the most significant sources of pollution in the nation, ‘at times comparable to, if not greater than, contamination from industrial and sewage sources.’”¹ As the Environmental Protection Agency (EPA) acknowledged in 1999, “[s]torm water runoff from lands modified by human activity can harm surface water resources and, in turn, cause or contribute to an exceedance of water quality standards by changing natural hydrologic patterns, accelerating stream flows, destroying aquatic habitat, and elevating pollutant concentrations and loading.” 64 Fed. Reg. 68,724 (Dec. 8, 1999). A 2000 EPA report to Congress attributed pollution, erosion and siltation – three of the four leading causes of degradation of U.S. waterbodies – to stormwater runoff.

In New Hampshire, stormwater has emerged as a major cause of water quality violations, serving as the source of impairment for 63 percent of all waters listed on the state’s Section 305(b)/303(d) list and, in combination with “other sources,” contributing to the impairment of an additional 20 percent of listed waters.² Thus, of all the waters appearing on New Hampshire’s 305(b)/303(d) list, only 17 percent are not in some way related to stormwater. Proper implementation of the Phase II stormwater regulations, including those addressing Small MS4s, is essential to protecting valuable surface water resources in New Hampshire from the proven adverse impacts of stormwater. This is especially the case in light of the growing body of evidence of stormwater pollution in the state, including but not limited to (1) significant chlorides impairments in southern New Hampshire, and (2) major eelgrass- and nitrogen-related impairments in numerous water bodies that are part of the Great Bay estuary (both discussed in further detail below).

The draft permit represents a significant improvement over the 2003 Small MS4 General Permit applicable to New Hampshire (“2003 permit”) in many ways, including its more detailed requirements relative to minimum control measures. However, to meet the objectives of, and ensure compliance with, the Clean Water Act – and thereby reverse the effects of stormwater that have been observed throughout the state and in such places as the above-referenced chlorides-impaired and Great Bay estuarine waters – it is essential that the draft permit be further strengthened. Although achieving these objectives, and compliance with the Clean Water Act, will require a sustained commitment of resources, EPA and the entities regulated under the Phase II program must not lose sight of the fact

¹ *Environmental Defense Center v. Browner*, 344 F.3d 832, 840 (9th Cir. 2003), *cert. denied*, 124 S.Ct. 2811 (2004) (citing Richard G. Cohn-Lee and Diane M. Cameron, *Urban Stormwater Runoff Contamination of the Chesapeake Bay: Sources and Mitigation*, THE ENVIRONMENTAL PROFESSIONAL, Vol. 14, p. 10, at 10 (1992) and *Natural Res. Def. Council v. EPA*, 966 F.2d 1292, 1295 (9th Cir. 1992)).

² “The 2008 Surface Water Assessment – Impaired Waters in New Hampshire,” Paul M. Currier, NHDES (presented at Nov. 18, 2008 Business & Industry Association/NHDES Water Symposium).

that there are significant costs associated with continued stormwater pollution – such as ongoing and increasing degradation of water quality, loss of recreational value, adverse impacts on water supplies, and declining property values – that can only be reduced and avoided by improved stormwater regulation and management.³ EPA and the regulated entities also must not lose sight of the fact that Low Impact Development (“LID”) practices that restore the natural hydrological cycle and reduce the demand on piped infrastructure can be, in the long run, more cost-effective to implement and maintain than conventional stormwater infrastructure.⁴ Thus, in addition to improving and protecting water quality, the increased use of LID has the potential to generate financial benefits and more livable communities.

II. Water Quality: Ensuring Compliance With, and Maintenance of, Water Quality Standards

A central tenet of the Clean Water Act (CWA) as well as the small MS4 program is the requirement that NPDES permits ensure compliance with water quality standards. This requirement is reiterated in the CWA, its regulations, case law, and the Small-MS4 General Permit.

In enacting the CWA, one of Congress’ principal goals was to “recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, [and] to plan the development and use (including restoration, preservation, and enhancement) of land and water resources.”⁵ In accordance with this goal, the CWA is clear that all provisions in a NPDES permit must comply with state water quality standards.⁶ This requirement is reiterated in regulations promulgated pursuant to the

³ See, e.g., “How Much Value Does the City of Philadelphia Receive from its Park and Recreation System? A Report by The Trust for Public Land’s Center for City Park Excellence for the Philadelphia Parks Alliance,” June 2008 at 3-4 (estimating that Philadelphia’s 10,000 acres of parks save \$5.9 million annually in stormwater management costs).

⁴ Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices, U.S. EPA, Nonpoint Source Control Branch (4503T), Washington, D.C., Dec. 2007 (EPA 841-F-07-006). This EPA report on seventeen LID case studies found that in the majority of the LID projects “significant savings were realized due to reduced costs for site grading and preparation, stormwater infrastructure, site paving, and landscaping.” LID projects resulted in up to 80% total capital cost savings. Furthermore, additional benefits, such as improved aesthetics and faster sales, were not factored into these savings figures. The case studies included redevelopment projects (for example, green roofs in Toronto) as well as new development.

⁵ 33 U.S.C. § 1251(b).

⁶ See 33 U.S.C. § 1370 (allowing state water quality standards to be more stringent than federal technology-based standards); 33 U.S.C. § 1341(a) (requiring compliance with water quality standards of both the state where the discharge originates and of any state affected by the discharge). The requirement that permits comply with state water quality standards allows no exceptions for cost or technological feasibility. *In re City of Fayetteville, Ark.*, 2 E.A.D. 594, 600-01 (CJO 1988) (interpreting the language of section 301(b)(1)(C) to require “unequivocal compliance with applicable water quality standards,” and prohibit “exceptions for cost or technological feasibility”), *aff’d sub nom. Arkansas v. Oklahoma*, 503 U.S. 91 (1992).

CWA,⁷ including the Phase II stormwater regulations pertaining to small MS4s, which explicitly state that an NPDES MS4 permit:

will require *at a minimum* that [an operator of a Small MS4] develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from [its] MS4 to the maximum extent practicable (MEP), *to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.*⁸

The final permit, and implementation of the small MS4 program under that permit, must in all respects ensure that discharges attain and maintain water quality standards and do not cause or contribute to water quality violations.

A. Section 1.3 – Eligibility for Coverage

Section 1.3 of the draft permit provides that certain stormwater discharges are not authorized for permit coverage. Among those limitations, it properly does not extend permit coverage to “[d]ischarges prohibited under 40 CFR 122.4,” or to “[d]ischarges that cause or contribute to an instream exceedance of a water quality standard” Draft Permit § 1.3(i), (k). These provisions are essential to enforcing the Clean Water Act’s central tenet that permitted discharges not cause or contribute to water quality violations.

The above provisions, however, must be further strengthened to ensure their proper implementation – i.e., to ensure that the permit not authorize discharges that will, in actuality, cause or contribute to water quality violations. Specifically, it is worth noting that the draft permit requires applicants to (1) follow specific procedures to assess the impacts of their stormwater discharges and associated activities on federally listed endangered and threatened species and designated critical habitat, and (2) certify compliance with this procedure in their submitted Notice of Intent (“NOI”). Draft Permit § 1.3(e), App. C. To ensure program implementation in a way that ensures compliance with water quality standards, and that does not unlawfully authorize discharges that cause or contribute to water quality violations, the permit must use a similar model for impaired waters. More particularly, we urge EPA to adopt provisions requiring applicants to specifically assess their proposed discharges as they relate to waters that are impaired as a result of pollution that can be attributed to stormwater, to specifically demonstrate that their proposed discharges will not cause or contribute to such impairments, and to certify that they have undertaken such an analysis.

B. Section 2.1.1 – Requirements to Meet Water Quality Standards

⁷ See 40 C.F.R § 122.4(d) (“No permit may be issued: . . . (d) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States”); 40 C.F.R § 122.44(d)(1), (d)(4) (“[E]ach NPDES permit shall include conditions meeting the following requirements when applicable: . . . (d) any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318, and 404 of CWA necessary to: . . . (1) [a]chieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality”).

⁸ 40 CFR § 122.34(a) (emphasis added).

Section 2.1.1 contains important provisions prohibiting discharges from causing or contributing to water quality violations, including the requirement that “[i]f at any time the permittee becomes aware or EPA or NHDES determines that a discharge causes or contributes to an exceedance of applicable water quality standards, the permittee must within 60 days of becoming aware of the situation eliminate the conditions causing or contributing to an exceedance of water quality standards.” Draft Permit § 2.1.1(c). We strongly support these provisions.

Section 2.1.1(a) of the draft permit limits the “applicable water quality standards” for purposes of the permit to “the State standards that are in place upon the effective date of this permit.” Draft Permit § 2.1.1(a). We strongly object to this limitation and urge EPA to make clear in the final permit that water quality standards include those additional standards adopted by the State after the effective date of the permit but during its five-year term. The significant challenges facing the Great Bay estuary – as evidenced by existing nitrogen and eelgrass-related impairments, and the imminent 303(d) listing of many of its waters for those impairments (*see* Part VI, *infra*) – highlight the need for this amendment. Specifically, NHDES is in the process of developing nitrogen criteria that will be adopted as part of the state’s water quality standards. It is essential that MS4s discharging to estuarine and associated waters be subject to these criteria during the term of this permit.

Section 2.1.1(a) contains a provision which we urge EPA to strike from the permit. Specifically, it states: “in the absence of information suggesting otherwise, discharges will be presumed to meet the applicable water quality standards if the permittee fully satisfies the provisions of this permit.” Draft Permit § 2.1.1(a). This presumption directly contradicts the statutory burden imposed on dischargers, under the Clean Water Act, to demonstrate that water quality standards will be met. It also undermines other requirements in the permit specifically pertaining to impaired waters and, we fear, may cause regulated entities to not address those requirements. Additionally, it undermines and is contrary to the right and ability of citizens under the Section 505 of the Clean Water Act, 33 U.S.C. § 1605, to enforce the provisions of the permit.

C. Section 2.2 – Discharges to Impaired Waters

Section 2.2 of the draft permit states: “Impaired waters are those waters that the State agency has identified pursuant to Section 303(d) of the Clean Water Act as not meeting applicable state water quality standards.” Draft Permit § 2.2. Given the five-year duration of the permit, it is essential that the term “impaired waters” include not only waters already appearing on the state’s 303(d) list at the time the final permit is issued, but also waters that are otherwise known to be violating water quality standards, and waters added to the 303(d) list *after* issuance of the final permit. For example, as further discussed in Part VI of these comments, below, NHDES has identified numerous waters in the Great Bay estuary as being impaired as a result of significant eelgrass declines and excessive nitrogen. Although known to be impaired, these waters have not yet been added to New Hampshire’s Section 303(d) list. The addition of these impairments to the

Section 303(d) list, a process in which EPA is currently engaged, is believed to be imminent. If, however, the actual Section 303(d) listing does not occur until after the effective date of the final permit, these waters must nonetheless be treated as impaired waters under the permit. Should the waters not be added to the list in advance of the final permit's issuance, it will be essential to provide notice to all regulated entities discharging directly or indirectly to these waters of their impaired status. We urge EPA to address this issue – should the 303(d) listing process not be complete upon issuance of permit – by adding a new appendix to the permit that (1) identifies these waters as impaired; (2) states that such waters must be treated as impaired for purposes of implementing and complying with the permit's requirements pertaining to impaired waters; and (3) notes that the waters will be added to the 303(d) list at some time in the future. These impaired waters, and other waters added to the Section 303(d) list in upcoming listing cycles, must be treated as impaired waters under the permit.

D. Section 2.2.1 – Discharge to an Impaired Water with an Approved TMDL

Section 2.2.1(a) of the draft permit references Appendix F of the permit, which identifies and describes certain specific TMDLs already in place in New Hampshire. Appendix F should be amended to include the TMDLs approved by EPA on January 14, 2009 relative to chlorides impairments in Dinsmore, Beaver and Policy/Porcupine Brooks and the North Tributary to Canobie Lake.⁹ Also, rather than relying exclusively on provisions pertaining to specific TMDLs to be described in Appendix F, Section 2.2.1(a) should be amended to include general requirements pertaining to discharges to impaired waters with TMDLs. Specifically, we urge the inclusion of language requiring MS4s with such discharges to (1) affirmatively demonstrate controls being implemented to control the pollutants identified in approved TMDLs; (2) evaluate whether additional controls are necessary to satisfy TMDL requirements; (3) implement all controls necessary to satisfy TMDL requirements; and (4) document the foregoing analyses and implementation in the NOI, SWMP and annual reports. These general requirements will be crucial to ensuring both that TMDLs are met (as required by the CWA and regulations), and that the public has an active role in understanding and supporting the achievement of the needed pollutant load reductions.

Section 2.2.1(c) of the draft permit states, with respect to TMDLs that do not specify a wasteload allocation (“WLA”) individually or categorically for discharges from small MS4s, that compliance with certain conditions in the permit “will be presumed adequate to meet the requirements of the TMDL, unless otherwise notified by EPA.” For the reasons discussed above relative to Section 2.1.1, the final permit should eliminate any *presumption* of adequacy, and EPA should affirmatively and specifically assess whether the discharger has met all applicable requirements, including those contained in

⁹ We acknowledge and support the following statement of intent in EPA's Fact Sheet: “If the draft TMDLs [for the chloride-impaired waters] are finalized and approved prior to the issuance of the final permit, and the TMDLs include a WLA applicable to a regulated small MS4's discharge, EPA will incorporate additional BMPs necessary to support the achievement of the WLA into the final permit.” Fact Sheet at 36.

applicable TMDLs, to ensure that discharges do not cause or contribute to water quality violations.

Section 2.2.1(d) of the draft permit states: “‘Applicable TMDLs’ for discharges from the permittee’s MS4 are those that have been approved by EPA as of the effective date of this permit.” We urge EPA to amend this language to allow for the possibility that additional, relevant TMDLs may be finalized during the five-year term of the permit, and to ensure that those TMDLs are taken into consideration for purposes of determining, at a minimum, (1) whether specific discharges can continue as authorized under the permit, and (2) whether SWMPs, BMPs and other conditions must be modified for discharges into waters that are the subject of those TMDLs. Regulatory developments pertaining to the Great Bay estuary – i.e., the imminent listing of numerous impairments which, in turn, will require the development of TMDLs – illustrate the importance of including future TMDLs in the permit.

E. Section 2.2.3 – Discharges to Chlorides-Impaired Waters in New Hampshire

Section 2.2.3 of the draft permit must be amended to make clear that all discharges to chlorides-impaired waters – including those for which EPA has recently approved TMDLs – must comply with the provisions of Section 2.1 and must not cause or contribute to the violation of water quality standards pertaining to chlorides. In other words, this section must be amended to make clear that the more specific provisions pertaining to chlorides-impaired waters do not supplant more general provisions pertaining to impaired waters, including the provisions of Section 2.1 and the general, yet critically important, prohibition against causing or contributing to water quality violations. These amendments will ensure consistency between Sections 2.2.1 and 2.2.3.

The provisions set forth in Section 2.2.3(a) appear to be tailored more specifically for traditional MS4s (i.e., the municipalities affected by the recently approved chlorides TMDLs), as opposed to the N.H. Department of Transportation. To ensure that discharges do not cause or contribute to water quality violations, these provisions must be amended to require affected MS4s to specifically address the manner in which they are addressing chlorides discharges associated with new or anticipated future development. In doing so, entities seeking coverage under the permit must assess new or increased chlorides loads associated with new private development which will discharge chlorides to chlorides-impaired waters by means *other than* through the regulated entities’ MS4.¹⁰ This requirement is essential – and requires detailed analysis by the MS4 entities and EPA – in light of the fact that the chlorides TMDLs allocate *no* chlorides pollutant loading to future development. In addressing this issue, MS4s must be required to establish, describe in detail, and implement a program to themselves further reduce

¹⁰ We interpret Section 2.2.4 of the draft permit, pertaining to “New or Increased Discharges to Impaired Waters,” as incorporating chlorides pollution from new development discharged to impaired waters through a regulated entity’s MS4. Accordingly, these specific comments relate to new or increased chlorides pollutants loads to impaired waters by means other than the regulated entity’s MS4.

chlorides loads to negate increases caused by new private development, to ensure that TMDLs for the chlorides-impaired waters are satisfied.

To ensure that discharges do not cause or contribute to water quality violations, and that TMDLs are satisfied, Section 2.2.3(a) must be further amended to require dischargers to develop – and affirmatively propose as part of the written plan referenced in the draft permit – a specific schedule for implementation of their TMDL compliance plan, and implementation that adheres to that schedule.

Finally, should discharges from I-93 and other state roads to chlorides-impaired waters be authorized by this permit, as opposed to an individual or alternative permit, this section must be amended to (1) clarify that it also applies to NHDOT, and (2) include provisions pertaining more specifically to the operation of Interstate 93 and state roads.¹¹ Such provisions must include BMPs and other actions to be taken by NHDOT to satisfy the TMDLs and water quality standards, including a specific implementation schedule.

F. Section 2.2.4 – New or Increased Discharges to Impaired Waters

We strongly support provisions in the draft permit requiring permittees to provide EPA and NHDES advance notice of a new or increased discharge from MS4s. We are concerned, however, that Section 2.2.4 of the draft permit, as currently drafted, is insufficient for ensuring that new or increased discharges to impaired waters will not cause or contribute to water quality standards.

First, Section 2.2.4(a) should be amended to require permittees to demonstrate – prior to commencement of a new or increased discharge – that a new or increased discharge will not only satisfy antidegradation requirements and an associated alternatives analysis, but also that it will not cause or contribute to the violation of other water quality standards. This amendment is necessary to ensure compliance with the central tenet of the Clean Water Act – that permitted discharges shall not cause or contribute to water quality violations.

Second, we are concerned with automatic-authorization provisions contained in Sections 2.2.4(a), (c), and (e), each of which automatically authorizes a new or increased discharge in the event EPA does not render a determination with respect to such discharges within thirty days of having received information relative thereto. To ensure that new or increased discharges that cause or contribute to water quality violations are not authorized, the draft permit must be amended to eliminate these automatic-authorization provisions and to instead require EPA to review, and render a determination on, proposed new or increased discharges.

Third, Section 2.2.4(d) contains certain notice provisions, requiring permittees to make available to the public the information it submits to EPA relative to new or increased discharges. To ensure that interested parties receive actual notice of such submissions,

¹¹ These comments are in no way intended to suggest that the commenters believe the Small MS4 General Permit is the appropriate mechanism for EPA to consider and authorize these discharges.

we request that the permit require regulated entities to provide specific notice – of its submission to EPA of new-or-increased-discharge information – to any persons having requested such notice at any time, and to any persons having commented on a regulated entity’s NOI, SWMP or other MS4 submissions.

Finally, Section 2.2.4(e) requires that new or increased discharges receive certification from NHDES that the discharge will not violate water quality standards, including antidegradation, and that prior to commencing the discharge, the permittee must submit such certification to EPA. It further states: “Such discharges will become authorized thirty (30) days after permittee’s notification unless EPA notifies the permittee that it has failed to demonstrate compliance with the antidegradation provisions of the surface water quality standards.” As stated above, and in light of the prohibition against causing or contributing to water quality violations, we strongly urge EPA to eliminate the “automatic authorization” approach set forth in this provision and, instead, ensure that it will actually review and render a determination on proposed new or increased discharges.¹² We also urge EPA, in reviewing state certifications, to not only assess whether the permittee has complied with antidegradation, but also whether it has complied with other state water quality standards.

We view this section of the draft permit to be critical to ensuring compliance with water quality standards. The proposed widening of Interstate 93 between Salem and Manchester illustrates the importance of this section, and of ensuring a meaningful opportunity for EPA to review and render an informed determination relative to significant new and increased discharges, and for the public to understand and comment on such proposed discharges. Specifically, NHDOT has proposed to widen – from a total of four lanes, to a total of eight lanes – a 19.8 mile segment of highway, portions of which discharge to four water bodies – Beaver Brook; Policy/Porcupine Brook; the Northern Tributary to Canobie Lake; and Dinsmore Brook, which is a tributary to Cobbetts Pond – that are impaired for chlorides-standard violations, and for which chlorides TMDLs have been approved. The wasteload allocations in these TMDLs establish that chloride pollutant load reductions from I-93 and other state roads are necessary to eliminate these impairments and attain water quality standards. The proposed widening project – by more than doubling the amount of impervious surface associated with the highway – will result in a significant increase in stormwater discharges and, likely, new discharges within the meaning of the permit. In light of existing impairments, and to ensure compliance with the Clean Water Act and its implementing regulations, this major proposed widening – to the extent it is subject to this permit, as opposed to an individual or alternative permit process – must be subject to a process that includes: (1) detailed review by EPA of all required submissions, including but not limited to state certification, pertaining to the proposed new or increased discharges associated with the proposed highway widening and whether such discharges will cause or contribute to water quality violations and satisfy antidegradation and TMDL requirements; (2) adequate time for EPA’s review, absent an artificial 30-day deadline; (3) the opportunity for public review of all materials submitted to EPA, and for comment for EPA’s consideration; and (4) an affirmative decision by EPA whether the proposed widening

¹² In amending these provisions, EPA also should remove the 30-day time limit for its review.

and its associated discharges will meet all water quality requirements, including water quality standards, antidegradation, and TMDL requirements. We urge EPA to amend the permit to ensure that such a process occurs for all significant new or increased discharges.

III. Monitoring

Monitoring is essential to the successful implementation of the MS4 program. The primary goals of a stormwater monitoring program should be to identify the source and effects of pollutants of concern and to show a trend of pollution reduction over the life of the permit so that MS4 discharges do not continue to cause or contribute to exceedances of water quality standards. Successful monitoring programs not only furnish essential information about water quality in permitted receiving streams; they also provide the basis for establishing prioritized areas and for continually developing and improving BMPs.

We support the increased monitoring requirements of the draft permit. However, we urge EPA to include terms making clear that more frequent monitoring, as well as in-stream monitoring, may be necessary under certain circumstances. For example, continued instream monitoring of the chlorides-impaired waters discussed above will be essential to tracking progress under the TMDLs, as will outfall monitoring under specified conditions (i.e., within a certain time of snow-melt or rain events following the application of road salts) at a frequency greater than that specified in the draft permit. Although the implementation plans for the TMDLs may address these monitoring efforts, the final permit should nonetheless incorporate by reference any additional monitoring requirements established as part of TMDL implementation plans.

The data generated by monitoring will be critical to eliminating discharges determined to be causing or contributing to water quality violations, and identifying and correcting IDDE problems. In addition to the above, we request two specific changes to the monitoring requirements set forth in the draft permit. First, nutrients (nitrogen in estuarine and marine waters, and phosphorous in fresh waters) should be added to the list of parameters to be monitored. Second, the permit should require permittees to place monitoring data into EPA's WQX database. This latter tool will not be burdensome for regulated entities, and will create an accessible repository of data that will aid permittees, EPA, and interested stakeholders alike.

IV. BMPs and Control Measures

BMPs and control measures must be developed and implemented to satisfy not only the draft permit's "maximum extent practicable", or "MEP," standard, but also to satisfy the Clean Water Act's and permit's water-quality requirements. The draft permit, as compared to the 2003 permit, provides significantly more detail regarding the minimum control measures to be developed and implemented in SWMPs. The draft permit's treatment of post-construction stormwater management for new development and redevelopment is particularly effective in addressing the need to reduce impervious

surface cover through LID, better planning, and retrofits.¹³ We offer the following specific comments.

A. Compliance Issues Under the 2003 Permit

The draft permit makes clear that, once finalized, it will not provide additional time for regulated entities to complete requirements such as mapping, and the development of ordinances needed to implement minimum control measures (such as ordinances pertaining to construction activities, and post-construction stormwater management). The draft permit and Fact Sheet describe what – on paper – could be an effective stormwater management program. However, the draft permit and Fact Sheet do not appear to recognize the reality that many aspects of the minimum control measures required under the 2003 permit still have not been completed. For example, according to an EPA analysis of SWMP summaries and various metrics for Year 5 of the 2003 permit period (i.e., 2007-2008):

- of 24 NH traditional MS4s reporting on the status of outfall mapping, only 63 percent had completed such mapping;
- of 24 NH traditional MS4s reporting on the status of developing an IDDE regulatory mechanism, only 50 percent have adopted such a mechanism;
- of 26 NH traditional MS4s reporting on the status of developing a regulatory mechanism for construction site runoff, only 66 percent have adopted such a mechanism; and
- of 25 NH traditional MS4s reporting on the status of developing a regulatory mechanism to address post-development runoff, only 56 percent have adopted such a mechanism.

EPA, NPDES Phase II Small MS4 Permit Program, SWMP Summaries & Select Metrics: Permit Year 5 (2007-2008).

If more regulated entities were starting the next permit period having made more significant progress under the first permit, we would be more encouraged about the prospects for meaningful improvement under the permit currently under development, particularly with the more detailed minimum-control-measure provisions contained therein. Although we understand the challenges inherent in forcing compliance with all the terms of this program, regulated entities have been on notice of this program and its requirements for ten years,¹⁴ and have had more than five years now to develop a solid

¹³ We strongly support the draft permit's requirements that permittees affirmatively assess street design and parking lot requirements to assess opportunities to reduce paved areas (Section 2.3.6.6); affirmatively assess local regulations to identify opportunities for LID (Section 2.3.6.7); and affirmatively assess and track acreage of impervious area and directly connected impervious area ("DCIA"), and retrofits to MS4-owned property and infrastructure (Section 2.3.6.8). It is essential, of course, that the permit not be implemented in a manner that generates multiple assessments without subsequent *action* – i.e., the actual adoption of new local regulations and standards, and actual retrofits that reduce DCIA. The permit should make clear that following such assessments, certain substantive requirements must be met, such as the actual adoption of legislation that not only allows, but requires, LID.

¹⁴ 64 Fed. Reg. 68,722 (Dec. 8, 1999).

foundation for their SWMPs. We urge EPA to use the process of developing this permit, the terms of the final permit itself, and enforcement mechanisms if necessary, to achieve better, prompt compliance with the small MS4 program. EPA should strongly consider publicly reporting, in a centralized format on its website, the compliance status of all regulated entities with respect to the many discrete deadlines and requirements of the final permit.

B. Maintenance and Cleaning of Catch Basins

The draft permit requires permittees to establish procedures for inspecting, cleaning and repairing catch basins, and to clean catch basins a minimum of once every other year. Draft Permit §2.3.7.1(d)(i). We are concerned that this minimum standard for cleaning catch basins is insufficient to protect receiving waters. Studies suggest that at minimum catch basins should be cleaned once or twice per year (Aronson et al., 1983). Furthermore, it has been shown that more frequent cleaning leads to improved effectiveness of catch basins.¹⁵ Naturally, the benefits of such inspections and maintenance must also be cost-effective – but if they are not effective in the first place, they are not “cost-effective,” either.¹⁶

C. Street Sweeping

The draft permit requires permittees to establish procedures for sweeping streets, sidewalks, and permittee-owned parking lots, and to sweep these areas a minimum of two times per year – once in the spring, once in the fall. Draft Permit § 2.3.7.1(d)(ii). Street sweeping is a critically important BMP. We agree with the requirement that street sweeping occur in the spring, to maximize the collection of winter deicing materials. However, we are concerned that two street sweepings per year will be insufficient.¹⁷ Moreover, we believe high-efficiency vacuum-assist street sweeping, as opposed to conventional street sweeping, should be required. Whereas pollutants such as sediment, sand, debris, salt, pet and wildlife waste, and organic matter may be removed by conventional street sweeping, standard sweeping does not remove the smaller sediment particles that contain greater amounts of phosphorous and metals. Frequent use of high-efficiency vacuums is far more effective at removing these particles than is the use of mechanical models.¹⁸ In fact, the City of Boston recently indicated that it will give

¹⁵ A 1994 Alameda, California study found that sediment removed per year tripled with monthly versus annual cleanings. Frequent cleanings were found to be particularly important in industrial and commercial areas. http://www.stormwatercenter.net/Pollution_Prevention_Factsheets/CatchBasins.htm

¹⁶ See Testimony of Tom Schueler, CLF v. Deval Patrick et. al., Case No. 11295-wgy (D. Mass., May 29, 2008)

¹⁷ The Tulsa, Oklahoma MS4 permit requires that residential streets be swept four times a year.

¹⁸ Robert F. Breault, Residential Street-Dirt Accumulation Rates and Chemical Composition, and Removal Efficiencies by Mechanical- and Vacuum-Type Sweepers, New Bedford, Massachusetts, 2003–04,” USGS Scientific Investigations Report 2005-5184 (2005). The 2003-2004 study in New Bedford, Massachusetts compared the efficiencies of a Pelican mechanical sweeper with a Johnston 605 Series vacuum sweeper. The study found that the vacuum sweeper efficiency (60 to 92 percent efficient) was greater than mechanical sweeper efficiency (9 to 40 percent efficient) across the board.

preference to street sweeping contractors using vacuum sweepers.¹⁹ To the extent the permit allows the use of conventional sweepers, permittees should be required to document the curb miles swept, the cubic yards of material collected, and the type of sweeper employed for each cleaning. These data will provide important information regarding the effectiveness of permittees' street-sweeping programs, as well as a strong point of comparison between conventional and vacuum sweepers.

D. De-Icing Applications

Application of road salts for winter de-icing purposes poses a significant threat to the health and sustainability of freshwater ecosystems throughout the region.²⁰ As part of its "Good Housekeeping" minimum control measures, the draft permit requires permittees to "establish procedures for winter road maintenance including the use and storage of salt and sand," and to "[m]inimize the use of chloride and other salts, and evaluate opportunities for use of other materials." Draft Permit § 2.3.7.1(d)(iii). These requirements are lacking in needed detail.

The draft permit should be amended to prescribe specific measures to be adopted, including but not limited to reduced application rates and the use of speed-calibrated spreaders, consistent with requirements set forth in Section 2.2.3 pertaining to MS4s discharging to chlorides-impaired waters. Extending such requirements to all permittees is warranted not only by the significant and growing impacts of chlorides pollution, but also the fact that chlorides impairments may be more widespread than currently documented. It also is worth noting that practices that reduce the volume of road salts can reduce winter-maintenance costs.

With specific regard to the storage of salt piles, or piles containing road salts, the draft permit requires enclosure or cover in most circumstances, but only *encourages* enclosing or covering piles "if stormwater runoff from the pile will not be discharged directly or indirectly to the MS4 or if discharges from the piles are authorized under another NPDES permit." Draft Permit §2.3.7.2(b)(iv). In light of the significant problems associated with chlorides, permittees should be required to cover all salt piles.

Finally, while the above comments relate to provisions in the "Good Housekeeping" section of the permit, it is essential that the permit also address chlorides pollution associated with new development and redevelopment. Specifically, all permittees should be subject to the requirements set forth in Section 2.2.3, which requires the owners of private parking lots and roads, and private road-salt applicators, to satisfy certain requirements. In light of significant and growing concerns regarding chlorides pollution, all permittees should be required to adopt and impose similar requirements for new development and re-development that discharges, directly or indirectly, to MS4s. The

¹⁹ Andrew Ryan, "High-tech sweeper could make city streets clean and green," Boston Globe (Feb. 11, 2009).

²⁰ See Sujay S. Kaushal et. al., Publications of the National Academy of Sciences, "Increasing Salinization of Fresh Water in the Northeastern United States" (Aug. 4, 2005) (available at www.pnas.org).

permit should also require permittees to consider – in assessing and adopting LID regulations – the use of porous pavements as a means of reducing the use of road salts.

V. N.H. Department of Transportation

Section 7 of the draft permit sets forth certain special requirements for transportation agencies which, in the case of New Hampshire, pertain to the N.H. Department of Transportation (NHDOT). We are greatly concerned with two aspects of NHDOT's conduct under the 2003 permit, each of which should influence the development of the final permit.

First, as discussed above, and as recognized in the draft permit and EPA's Fact Sheet, there are significant problems associated with chlorides pollution in the I-93 corridor. Although TMDLs related to these problems were only recently approved, the occurrence of chlorides impairments has been known for years. Despite this fact, NHDOT's SWMP and annual reports under the 2003 permit have failed to comply with that permit's requirement that SWMPs specifically address how pollutants of concern will be controlled and how the permittee's program will ensure that discharges will not cause exceedances of water quality standards. *See, e.g.,* 2003 General Permit §I.C.2. To the extent EPA elects to use the Small MS4 General Permit as the vehicle for addressing these continued discharges to chlorides-impaired waters (as opposed to requiring an individual permit), it must take into account NHDOT's past conduct under the 2003 permit when finalizing the permit.

Second, NHDOT construction activities related to Exit 3 on I-93 recently caused a significant discharge of sediment into Cobbetts Pond. Specifically, on December 12, 2008, massive amounts of sediment washed off the construction site at Exit 3 into Castleton Brook and Dinsmore Brook which, in turn, caused a large sediment plume in Cobbetts Pond. *See* Attachment 2 ("I-93 work blamed for sediment in Cobbetts Pond," *Eagle-Tribune* (Dec. 16, 2008)). *See also* Attachment 3 (photographs taken at approximately 9:00 a.m. on Dec. 12, 2008, Castleton Brook and Cobbetts Pond); Attachment 4 (photographs taken between approximately 12:45 and 1:15 on Dec. 12, 2008, Castleton Brook and Cobbetts Pond); Attachment 5 (photographs taken at approximately 1:15 on Dec. 12, 2008, Dinsmore Brook). We understand and appreciate that NHDOT is taking a more aggressive approach to ensuring that its contractor for the Exit 3 construction project prevents pollution problems in the future.²¹ Nonetheless, given the extensive construction work in which NHDOT engages, including but not limited to its proposal to widen 19.6 miles of I-93, this incident is cause for major concern – a concern further amplified by the fact that NHDOT is exempt from the typical process required under the Alterations of Terrain program administered by NHDES. In addition to the above, it is important to note that the draft permit appears to be modeled on the assumption that permittees will play a regulatory role with respect to construction activities. *See, e.g.,* Fact Sheet at 51. The fact that transportation agencies are essentially self-regulating entities within the permit's model adds to the importance of addressing

²¹ NHDOT has allowed CPIA to attend meetings to address stormwater management measures at the site.

these concerns. We urge EPA to address the above issues and concerns in finalizing the permit.

In addition to the above, we urge EPA to amend the draft permit to require NHDOT to strongly consider LID opportunities wherever and whenever feasible. Section 7.3 of the draft permit states: “The agency must . . . evaluate opportunities to include green infrastructure practices in new development and redevelopment at the facility. The agency must evaluate opportunities to reduce the amount of impervious cover due to parking areas and walkways.” It is not clear from this language whether NHDOT is required to consider green infrastructure and LID opportunities in the many projects in which it engages. EPA should amend this language to require such consideration – including the use of porous pavements²² – in all NHDOT projects where LID and green infrastructure opportunities exist.

Finally, we reiterate our strong concerns with NHDOT’s proposal to widen – from a total of four lanes, to eight – the 19.6 mile stretch of I-93 between Salem and Manchester. This project will involve significant increased, and potentially new, discharges into the four chlorides-impaired waters. We ask that EPA address this proposed project and its associated discharges by requiring and specifically outlining a detailed review process – as set forth in Part II.F of these comments, above – to determine whether the proposed project is permissible under the Clean Water Act, including whether it can comply with the TMDLs, water quality standards, and Section 401 water quality certification.

VI. Great Bay Estuary

The Great Bay estuary is one of New Hampshire’s most productive and diverse habitats. Comprised of the Piscataqua River, Little Bay and Great Bay, and receiving freshwater flows from several small creeks and seven major rivers – the Oyster, Bellamy, Lamprey, Squamscott, Winnicutt, Cocheco and Salmon Falls Rivers – the estuary contains a broad diversity of habitat types, and a broad array of wildlife species. Among its dependent wildlife, the Great Bay estuary provides important habitat for numerous fish species.²³ Many of these species, such as Atlantic cod, are important commercial fish. Others, such as a variety of herring, are forage fish that support commercial fisheries by serving as an important building block in the marine food chain. Still other species, such as striped bass and bluefish, are important recreational fisheries. In addition to finfish, the estuary supports shellfish, such as oyster and blue mussels, and other invertebrates.

²² NHDOT has employed the use of porous pavement at part of a new park-and-ride facility at Exit 5 of I-93. The permit should ensure that DOT gives serious consideration to porous pavement and other LID practices when it constructs or re-constructs such facilities.

²³ The estuary is designated Essential Fish Habitat (EFH) by the National Marine Fisheries Service for numerous fish species in various life stages, including Atlantic cod, Atlantic herring, Atlantic sea scallop, haddock, pollock, red hake, white hake, window-pane flounder, yellowtail flounder, Atlantic mackerel, and bluefish. The Cocheco River, which flows through Dover into the Piscataqua River, is designated EFH for Atlantic salmon for all of its life stages. In addition to these EFH-designated species, the estuary supports numerous other fish, including striped bass, smooth flounder, rainbow smelt, Atlantic sturgeon, American shad, river herring (blueback herring and alewives), black sea bass, American eel, white perch, sea lamprey and Atlantic silversides.

Eelgrass is a cornerstone of the Great Bay estuary ecosystem, serving an important role for fish, invertebrates and birds alike. Eelgrass meadows in the estuary provide breeding grounds, nurseries, food, and cover for many fish as well as important habitat for invertebrate species. The abundant aquatic life found in eelgrass meadows, in turn, provides an important food source for birds. Eelgrass meadows also serve a critically important water quality function by stabilizing sediments and filtering contaminant. As the N.H. Estuaries Project has noted: eelgrass is “an essential habitat for the estuary, the loss of which would fundamentally alter the ecosystem of the bay.” NHEP, *Environmental Indicator Report: Critical Habitats and Species* (March 2006) at 8.

The Great Bay estuary is in jeopardy as a result of increasing nitrogen concentrations. According to the N.H. Estuary Project’s 2006 *State of the Estuaries* report, not only have nitrogen concentrations increased in the estuary, they have reached the same levels that have been shown to cause negative effects in other estuaries. Related to the significant problem of nitrogen pollution, the estuary has experienced major declines in eelgrass cover and biomass. As a result of these conditions, numerous waters in the estuary are known to be impaired as a result of substantial eelgrass declines and/or the violation of narrative water quality standards pertaining to nitrogen. Specifically, in August 2009, NHDES submitted to EPA a methodology pursuant to which it determined that several waters associated with the Great Bay estuary are impaired as a result of substantial eelgrass declines, and that four water bodies – the Squamscott, Lamprey, Oyster and Salmon Falls Rivers – are impaired for nitrogen. *See* Attachment 6 (NHDES, “Methodology and Assessment Results related to Eelgrass and Nitrogen in the Great Bay Estuary for Compliance with Water Quality Standards for the New Hampshire 2008 Section 303(d) List,” Aug. 11, 2008). Subsequently, on December 30, 2008, NHDES published for public review and comment a document discussing numeric nutrient criteria for the Great Bay estuary, some of which demonstrate numerous additional nitrogen impairments. *See* Attachment 7.

We understand that in Massachusetts, EPA intends to develop separate MS4 general permits for four specific geographic areas, and that it intends to do so based on unique water quality issues (i.e., TMDLs) applicable to those areas. In light of the foregoing, we believe a similar approach makes sense for New Hampshire’s Great Bay estuary watershed. In particular, the significant threats facing the Great Bay estuary (which include stormwater-related threats); existing impairments in the estuary relative to nitrogen pollution and eelgrass losses and the imminent Section 303(d) listing of those impairments; the imminent development of numeric nutrient criteria for the estuary; and the need to develop TMDLs to ensure the attainment of those nutrient criteria; all warrant special treatment of this watershed for MS4 permitting purposes. Accordingly, we request that EPA create a general permit for MS4s located within the watershed of the Great Bay estuary which directly and specifically addresses the challenges and needs facing the estuary.

VII. Endangered/Threatened Species

Section 1.3 of the draft permit, pertaining to limitations on permit coverage, provides that the permit does not authorize discharges that are likely to adversely affect species listed as endangered or threatened under the Endangered Species Act, or adverse impacts on designated critical habitat. Draft Permit § 1.3(e). The draft permit also sets forth procedures applicants must follow to assess these issues and to thereby determine eligibility for permit coverage. We believe this language should be expanded to also require consideration of species listed as endangered or threatened under New Hampshire state law. Such an approach would be consistent with the New Hampshire Coastal Zone Management Enforceable Policies – discussed in EPA’s Fact Sheet (pp. 14-19) – which include a number of plant and wildlife considerations that are in no way limited to species listed under the Endangered Species Act. *See* EPA Fact Sheet at 15, 16. It also will be necessary to ensure that discharges do not adversely affect state-listed species – such as Blandings turtle (endangered) and spotted turtle (threatened) – which depend on aquatic resources.²⁴

VIII. Authorization to Discharge

In *Environmental Defense Center v. Browner* (“*EDC*”), the U.S. Court of Appeals for the Ninth Circuit addressed the type of review required for Notices of Intent (“NOIs”) submitted by small MS4s seeking coverage under a general permit.²⁵ Certain petitioners in *EDC* challenged the EPA’s small MS4 regulations on the ground that they failed to require EPA to review the substance of NOI submissions to ensure compliance with the Clean Water Act. In addressing this critical issue, the *EDC* Court started with the proposition that the Clean Water Act imposes certain substantive requirements that must, consistent with the clear intent of Congress, be satisfied by small MS4s seeking coverage under a general permit. Specifically, the Court found “the plain language of § 402(p) of the Clean Water Act, 33 U.S.C. § 1342(p), expresses unambiguously Congress’s intent that EPA issue no permits to discharge from municipal storm sewers unless those permits ‘require controls to reduce the discharge of pollutants to the maximum extent practicable.’”²⁶ The *EDC* Court concluded that EPA must review the substance of NOIs to ensure compliance.²⁷

²⁴ See http://www.wildlife.state.nh.us/Wildlife/Nongame/endangered_list.htm, listing species designated as endangered and threatened under New Hampshire law.

²⁵ *Environmental Defense Center v. Browner*, 344 F.3d 832 (9th Cir. 2003), *cert. denied*, 124 S.Ct. 2811 (2004).

²⁶ *EDC*, 344 F.3d at 854. Of course, in addition to the “maximum extent practicable” requirement, the Clean Water Act and its regulations contain other important mandates, including the requirements (1) that discharges not cause or contribute to water quality violations, *see* discussion in Section II, below, and (2) that the Phase II stormwater regulations (of which the Small-MS4 regulations are a part) constitute a comprehensive program designed “to protect water quality.” *EDC*, 344 F.3d at 844 (*citing* 33 U.S.C. § 1342(p)(6)).

²⁷ The *EDC* court stated:

According to the Phase II Rule, the operator of a small MS4 has complied with the requirement of reducing discharges to the “maximum extent practicable” when it implements its stormwater management program, *i.e.*, when it implements its Minimum Measures. . . . Nothing in the Phase II regulations requires that NPDES permitting authorities review these Minimum Measures to ensure that the measures that any given operator of a small MS4 has decided to undertake will *in fact* reduce discharges to the maximum extent practicable. . . . Therefore, under the Phase II Rule,

As a result of the *EDC* decision (which the U.S. Supreme Court declined to review on *certiorari*), EPA must substantively review NOIs to ensure compliance with the Clean Water Act and applicable standards. Because NOIs include substantive elements of permit applicants' SWMPs (*see* Draft Permit, Appendix E), EPA must engage in a substantive review and approval of these SWMP elements – and, by logical implication, the SWMP as a whole – to ensure compliance with all applicable standards and requirements before granting authorization to discharge.

* * * * *

Again, CLF, the Rivers Council, and CPIA appreciate the opportunity to provide these comments. We look forward to working with EPA to ensure the significant problems caused by stormwater pollution are addressed through the final development and implementation of this permit.

nothing prevents the operator of a small MS4 from misunderstanding or misrepresenting its own stormwater situation and proposing a set of minimum measures for itself that would reduce discharges by far less than the maximum extent practicable.

In fact, under the Phase II Rule, in order to receive the protection of a general permit, the operator of a small MS4 needs to do nothing more than decide for itself what reduction in discharges would be the maximum extent practical reduction. No one will review that operator's decision to make sure that it was reasonable, or even good faith. Therefore, as the Phase II Rule stands, EPA would allow permits to issue that would do less than *require* controls to reduce the discharge of pollutants to the maximum extent practicable. . . . We therefore must reject this aspect of the Phase II Rule as contrary to the clear intent of Congress.

EDC, 344 F.3d at 855 (citations and parentheticals omitted) (*italics in original*). *See also id.* at 855, n. 32, stating, in pertinent part:

That the Rule allows a permitting authority to review an NOI is not enough; *every permit must comply with the standards articulated by the Clean Water Act, and unless every NOI issued under a general permit is reviewed, there is no way to ensure that compliance has been achieved.* The regulations do require NPDES permitting authorities to provide operators of small MS4s with "menus" of management practices to assist in implementing their Minimum Measures, *see* 40 C.F.R. § 123.35(g), but again, nothing requires that the combination of items that the operator of a small MS4 selects from this "menu" will have the combined effect of reducing discharges to the maximum extent practicable.

. . . .

Absent review on the front end of permitting, the general permitting regulatory program loses meaning even as a procedural exercise.

(Emphasis added).

Respectfully submitted,

CONSERVATION LAW FOUNDATION

By: /s Thomas F. Irwin
Thomas F. Irwin, Senior Attorney
Conservation Law Foundation
27 North Main Street
Concord, NH 03301
603-225-3060

NEW HAMPSHIRE RIVERS COUNCIL

By: /s Carl Paulsen
Carl Paulsen, Program Director
New Hampshire Rivers Council
54 Portsmouth Street
Concord, NH 03301
603-228-6472

COBBETTS POND IMPROVEMENT ASSOCIATION

By: /s Kathleen Sullivan Difruscia
Kathleen Sullivan Difruscia, Esq.
302 Boradway
Methuen, MA 01844
603-898-8198