



CONNECTICUT FUND FOR THE ENVIRONMENT / SAVE THE SOUND
AND
SAVE THE BAY

**COMMENTS ON THE MASSACHUSETTS GENERAL PERMIT FOR DISCHARGE OF
STORMWATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

February 27, 2015

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Connecticut Fund for the Environment (“CFE”) is a non-profit environmental organization with over 5,500 members in Connecticut and New York. The mission of CFE, and its bi-state program Save the Sound, is to protect and improve the land, air and water of Connecticut and Long Island Sound. We use legal and scientific expertise and bring people together to achieve results that benefit our environment for current and future generations.

Save The Bay represents thousands of members and supporters committed to preserving, restoring, and protecting the ecological integrity and value of Narragansett Bay and coastal Rhode Island. Our mission is to protect and improve Narragansett Bay and to create a swimmable, fishable, healthy Narragansett Bay accessible to everyone.

We are pleased to submit the following comments on Environment Protection Agency (“EPA”) Region 1’s, Draft General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in Massachusetts, Permit Nos. MAR041000, MAR042000, MAR043000 (“Draft MS4 Permits”). These permits will authorize discharges from Small MS4s regulated under section 402(p) of the Clean Water Act and relevant federal and state regulations.

Summary of Recommended Permit Changes

We ask that EPA Region 1 strengthen the permit to include, inter alia, (1) clear green infrastructure retrofit standards and requisite goals for implementation; (2) a specified maximum time from the date of discovery, by which all illicit discharges and sanitary sewer overflows (“SSOs”) must be eliminated; (3) a more extensive list of low impact development (“LID”) measures, as specific as possible, that permittees must incorporate into their local codes, and; (4) more robust public participation in the development of Stormwater Management Plans (“SWMPs”) including an extended comment period and the opportunity for a public hearing.

Stormwater Impacts to the Waters of Long Island Sound and Narragansett Bay

Stormwater runoff is one of the most serious problems facing water quality in New England today. Every time it rains, water runs off impervious surfaces such as roofs, driveways, roads, and parking lots, collecting pollutants. This polluted runoff flows through storm sewers into streams, lakes, and tributaries, many of which lead into downstream states, and eventually into Long Island Sound or Narragansett Bay, degrading water quality in each. Stormwater has been identified by EPA as “contribut[ing] to poor surface water quality, including altered flow regime (shoreline erosion and stream channel alteration), the presence of pollutants, and the destruction of healthy populations of fish and other aquatic life.”¹ Stormwater pollution leads to waterbodies that cannot adequately sustain fish and other marine life, closed beaches and shellfish beds, and an unhealthy Long Island Sound.

As EPA is aware, much of the tidal and coastal waters of Long Island, Long Island Sound and Narragansett Bay are identified on the relevant state Section 303(d) list as waters impaired by nitrogen or pathogens. Moreover, all of Long Island Sound is subject to a nitrogen TMDL for dissolved oxygen. Finally, most of the Connecticut coastal and tidal reaches are the subject of bacterial TMDLs. In Long Island Sound, nearly 70% of our fresh water inputs are delivered by the Connecticut River, the Thames River and the Farmington River. These rivers have substantial watersheds located in Massachusetts, the pollution of which impacts our rivers downstream and the Long Island Sound receiving waters.

Over 60% of the Narragansett Bay watershed is in the state of Massachusetts, and the largest contributors of fresh water to the Bay are the Taunton and Blackstone Rivers. The upper Bay watersheds of the Palmer and Kickemuit Rivers are subject to a phosphorus TMDL, and other waters in the Blackstone River and Mount Hope Bay are subject to a TMDL for pathogens. These waters are also impaired by nitrogen. Following a devastating fish kill in the Bay in 2003, the Rhode Island General Assembly passed legislation that set a goal of reducing nitrogen from Upper Narragansett Bay wastewater treatment plants by 50% in 10 years. We are close to achieving that goal, but reductions are still needed in riverine inputs from the upper watershed.

In the Taunton watershed specifically, recently-released draft NPDES permits for wastewater treatment plants in Taunton, Bridgewater and Brockton state that there is a 51% reduction in nitrogen needed to meet water quality standards in Mount Hope Bay. In the permit fact sheet, EPA states that a reduction of 20% from non-point sources of pollution is a reasonably aggressive target, leaving the remaining reduction to come from municipal wastewater treatment

upgrades. The needed reduction in non-point source load, according to EPA calculations, would be 286 lbs/day from the Taunton watershed. Without a program to retrofit existing directly connected impervious areas, it will be unlikely that this target can be met. In addition, any clearly identified illicit discharges or sanitary sewer overflows should be eliminated in a timely matter, on a schedule set forth in the permit.

Implementing a strong General MS4 Permit is a vital step to protecting these waters. The current Draft MS4 Permit is should be strengthened to protect of Massachusetts' and downstream states' valuable natural resources. We offer the following comments to improve the Draft MS4 Permit and ensure that it fulfills the requirements of both state and federal laws and regulations.

Specific Recommendations

1. Develop and require clear green infrastructure retrofit standards focused on deploying proven “green infrastructure” retrofit technologies to capture, infiltrate, and treat stormwater in urbanized areas that would otherwise discharge to waters impaired for nutrients and bacteria.

CFE/Save the Sound has retained nationally known stormwater expert, Richard Claytor, PE (President, Horsley Witten Group) to provide expert testimony to the ongoing Connecticut MS4 General Permit proceeding. While his written comments are focused on the Connecticut MS4 permit, many of his comments are equally applicable to the Massachusetts Draft MS4 Permits. A relevant portion of his testimony, quoted below, highlights the need for specific green infrastructure retrofit applications to existing impervious surfaces, in order to improve water quality.

It is now widely accepted that in order to ultimately restore water quality in water bodies for which nitrogen or phosphorus is the stormwater pollutant of concern, runoff from existing development that was built prior to modern stormwater control techniques must be effectively managed through a stormwater retrofitting program. In order for these programs to be effective and enforceable, the methods for retrofitting must be defined, the amount of existing development requiring management must be defined, and the timeframe for implementation must be specified. Examples of jurisdictions where this is being required include:

- Maryland's MS4 permit program requires municipalities to implement a retrofit program for 20% of their impervious cover over the permit term.
- Vermont's MS4 General Permit requires the development of flow restoration plans and retrofitting for 12 watersheds where TMDLs have been approved to manage uncontrolled stormwater runoff.
- Long Creek in southern Maine is in its fifth year of an aggressive retrofit program in an attempt to meet water quality standards by 2020. Long Creek is being restored through a cooperative agreement through its Watershed Management District, and is now being viewed as a model for other communities.

Mr. Claytor offers the following general comments regarding the value of green infrastructure retrofits in removing bacterial (pathogen) pollutants:

Waters impaired for which Bacteria is a stormwater pollutant of concern will also benefit from a concentrated stormwater retrofit program for existing development, but the important of source controls are doubly important. Bacteria are difficult to reduce or remove from stormwater using most stormwater treatment practices at the

high levels necessary to meet water quality standards. Only infiltration practices offer consistently robust removal capabilities for bacteria.

The Draft MS4 General Permit appropriately distinguishes between requirements for MS4s that discharge into non-impaired waters versus water quality impaired waters, both with and without TMDLs and directly references currently-in-place TMDLs. Section 2.1.1 of the permit also requires that “the permittee shall reduce the discharge of pollutants such that the discharge from the MS4 do not cause or contribute to an exceedance of water quality standards.”

However, we believe that to be meaningful or enforceable, EPA must be clearer as to how a permittee shall meet the requirement of Section 2.1.1. Where an MS4 discharges a pollutant to a waterbody impaired for that pollutant, it has contributed to the impairment. Therefore the only reasonable interpretation is that the MS4 must be required to discharge “no net pollutants”—meaning that they must account for any of the pollutant that they cannot eliminate before the end of the pipe and provide means to eliminate the same pollutant in other ways.

Consistent with Mr. Claytor’s expert opinion above and the requirement that the permittee not cause or contribute to the exceedance or water quality standards, CFE/Save the Sound and Save the Bay request that permittees be required to develop, fund, and implement a green infrastructure retrofitting program to meet TMDL requirements within a specified timeframe and to use control practices documented to reduce or eliminate the pollutant of concern. Like Maryland, the permit must identify the amount of impervious surfaces that must be retrofitted and the standards to which they must be retrofitted.

The Draft MS4 General Permit does not require either a clear impervious surface treatment mandate or a clear timeframe to achieve this goal. We request that this permit include such a requirement for urbanized localities containing high impervious surface coverage draining into water bodies associated with either an impairment for or TMDL associated with nutrients or bacteria. We recommend that the permit indicate an initial standard at least ten percent (half as stringent as the Maryland permit’s requirement). Therefore we recommend that appropriate and up-to-date stormwater retrofit design standards be identified and that the permit require that at least ten percent of the impervious surfaces within the applicable permittee’s location be retrofitted to such standards within the five year permit cycle.

2. Specify a maximum time from the date of discovery, by which all illicit discharges and SSOs must be eliminated, require ongoing “rolling” outfall and interconnection inspections, regularly test known dry weather flows that do not trigger elimination procedures, and mandate the development of a mechanism for acting upon citizen reports.

In general, we are pleased by the IDDE control measures included in the MS4 General Permit, specifically by the outfall and catchment sampling and investigation procedures, but we offer comment on specific areas where these programs could be strengthened, especially the inclusion of a maximum time from the date of discovery, by which all illicit discharges and SSOs must be eliminated.

The Draft MS4 Permit makes it clear that permittees shall diligently pursue elimination of *all* illicit discharges. (Section 2.3.4.2.) The permits requires an inventory of all outfalls and interconnections within one year of the effective date of the permit. (Section 2.3.4.5.) It requires system mapping be developed within two years of the effective date of the permit. (Section 2.3.4.6.) And it requires that permittees complete dry weather screening and sampling of every MS4 outfall and interconnection no later than three years from the effective date of the permit.

(Section 2.3.4.8.) We believe that this is a reasonable procedure and timeframe for inspecting outfalls and interconnections the first time through the process. We ask that EPA include some discussion of ongoing outfall and interconnection monitoring, such as requiring that one third of the outfalls and interconnections be similarly investigated every year under the program. This sort of “rolling” investigatory procedure would be more likely to discover illicit discharges by completing two passes through the entire MS4 every six years rather than a program that completes a single pass during each five-year permit cycle.

The Draft MS4 Permit states that the permittee shall eliminate illicit discharges “as expeditiously as possible,” and then provides that any such discharge that cannot be eliminated within 60 days requires “an expeditious schedule.” (Section 2.3.4.2.) Similarly, “upon detection of an SSO, the permittee shall eliminate it as expeditiously as possible.” (Section 2.3.4.4.) While the intent is clear, this language allows significant uncertainty and no certain end-date. Many illicit discharges probably will not be eliminated in the first 60 days which means many will be subject to unique schedules. We would rather have a more realistic time frame with more consistency and enforceability. We recommend a set maximum of 180 days from the date of discovery to eliminate either an illicit discharge or an SSO. This provides more time to the permittee, but also an enforceable, consistent end-date.

This permit should clarify the procedures for regular testing of known dry weather flows that do not trigger elimination procedures when discovered under Section 2.3.4.3. Since the Draft MS4 Permit allows certain discharges of non-stormwater to the MS4, dry weather flows cannot be assumed to be prohibited. However, when dry weather flows are discovered and tests do not indicate that the discharge requires immediate action, regular testing ought to be required to ensure that illicit discharges are not occurring. We recommend this testing occur semi-annually.

This permit should also require that permittees implement a mechanism for acting on citizen reports. Citizens that use waterways frequently – such as CFE/Save the Sound members who engage in numerous water-related activities, including fishing, sailing, rowing, sightseeing, hiking, and wildlife watching – are in a position to identify and report illicit or suspicious discharges. Currently there is no mandate for the permittee to investigate or respond to these reports. Each permittee should be required to respond to citizen reports through investigation and determinations as to whether the reported discharge is illicit (and if so, enforcement). We suggest the following language be added to the permit:

“The permittee shall maintain a website with clear instructions for the public describing how citizens can submit an overflow report. The website shall provide an email address and/or a phone number for submissions. The permittee shall affirmatively investigate and eliminate any dry weather flow reported to it by any citizen or organization, provided that such report incorporates at least a time and location of an observed overflow. The permittee shall commence inspection of such a reported outfall or manhole within 5 business days of receiving such a report, and incorporate those reported outfalls into its IDDE program subject to all provisions of Section 2.3.4. All citizen reports and the responses to those reports shall be included in the Annual Report.”

3. Include a more extensive list of low impact development (“LID”) and runoff reduction measures that permittees must incorporate into their local building codes or ordinances, and be as specific as possible about what is required.

Section 2.3.6 of the Draft MS4 Permit contains requirements for stormwater management in new development and redevelopment. This section lays out the skeleton of a good LID program with

the goal of reducing the amount of runoff from developed areas, and requires retaining or filtering the first inch of rainfall. However, we again recommend that the permit be more specific in what exactly is required and leave less up to the discretion of the permittee. In addition, we suggest some specific measures that should be included to strengthen the program.

One of the primary tools of a successful LID program is the minimization of impervious surfaces. Section 2.3.6 (b) of the draft permit requires permittees to develop a report to assess the impact of existing street design and parking lots and implementation of the report's recommendations. But the permit does not provide specific guidelines, guidance, or mandates to ensure that permittees actually reduce runoff. It leaves too much up to the discretion of the permittee. It also leaves out other impervious surfaces, such as rooftops, sidewalks, recreational surfaces such as basketball or tennis courts, and paved courtyards or forums to name a few. Elsewhere in the section, it mentions green roofs, rain garden, and pervious pavement but contains no real, nor enforceable mandate that permittees change local codes and ordinances to affirmatively require these.

The West Virginia (WV) Small MS4 Permit offers a prime example of an approach that goes beyond Massachusetts's Draft MS4 Permit to ensure that permittees develop a true LID program. The West Virginia model combines "watershed protection elements," such as:

- Requirements to minimize the creation of impervious cover from parking lots, paved road, and rooftops;
- Provisions to preserve, protect, create, and restore ecologically sensitive areas that provide water quality benefits and serve critical watershed functions;
- Implementation of stormwater management practices that prevent or reduce thermal impacts to streams, including requiring vegetated buffers along waterways, and disconnecting discharges to surface waters from impervious surfaces such as parking lots;
- Measures to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges;
- Implementation of standards to protect trees and other vegetation with important evapotranspirative qualities; and
- Implementation of policies to protect native soils, prevent topsoil stripping, and prevent compaction of soils.

The WV model requires permittees to incorporate the above provisions, among others into their local ordinances within specified timeframes. Furthermore, the WV permit requires permittees to incorporate "site and neighborhood design measures" to be implemented in tandem with the watershed protection elements identified above.

Finally, it is not enough to simply require permittees to establish a local code that "requires or allows the use of runoff reduction and LID practices." Instead, the final permit must provide specific language that identifies what runoff reduction and LID practices must be required.ⁱⁱ The permit and resulting building codes should tie certain common development practices to required runoff retention or infiltration techniques.

4. Include in the Draft MS4 Permit the Full Opportunity for the Public to Provide Comment and to Request a Public Hearing on NOIs and SWMPs.

EPA must provide a full opportunity for public to submit comments and request hearings on NOIs and SWMPs before permit coverage is granted. The Draft MS4 Permit does contemplate an opportunity for the public to comment on submitted material. However, the time allowed is

severely insufficient. Although most permittees must submit registration materials 90 days before the effective date of permit, the public is given an unreasonably short period of a minimum of 30 days from submission in which to review and comment to DEEP upon all of these submissions. In light of the length of time that DEEP has a permittees' registration materials, citizens can and should be provided more than 30 days to provide full and thoughtful comments.

While the Draft MS4 Permit allows for limited public comment, it fully fails to provide the public with a hearing on registrations and SWMPs, or any other forum for response to those comments, as is required under the Clean Water Act's public participation provisions.ⁱⁱⁱ DEEP should include in an opportunity for public hearings on registration materials before permit coverage is granted.

Thank you for this opportunity to comment on these important matters. We look forward to engaging in a discussion.

Sincerely,



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ⁱ EPA Website, EPA New England Topics, *Stormwater*, <http://www.epa.gov/region1/topics/water/stormwater.html>.

ⁱⁱ As another example, we again refer to Maryland's MS4 permit program that requires municipalities implement a retrofit program for 20% of their impervious cover over the permit term.

ⁱⁱⁱ See 33 U.S.C. §§ 1251(e), 1342(b)(3).