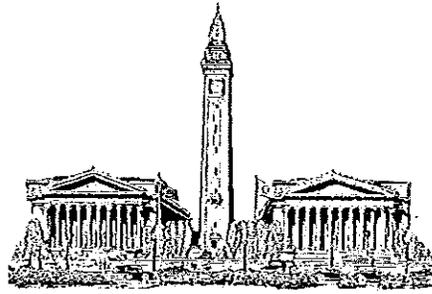


DEPARTMENT OF  
PUBLIC WORKS

ENGINEERING DIVISION

70 TAPLEY STREET  
SPRINGFIELD, MA 01104

413-787-6210 413-787-6029 FAX



CITY OF SPRINGFIELD  
MASSACHUSETTS

January 21, 2011

United States Environmental Protection Agency – Region I  
Ms. Kate Renahan  
Office of the Regional Administrator  
5 Post Office Square – Suite 100  
Mail Code: ORA01-1  
Boston, Massachusetts, 02109-3912

Subject: Comments on the Draft Massachusetts Interstate, Merrimack, and South Coastal Small MS4 General Permit

Dear Ms. Renahan:

The City of Springfield respectfully submits the following comments with regard to the Draft Massachusetts Interstate, Merrimack, and South Coastal Small MS4 General Permit. Stormwater discharged from municipal stormwater systems can and should be managed and improved to benefit the environment and our water resources, however the EPA Region I draft general permit, as proposed, fails to support the actions necessary for practical implementation. The proposed draft permit imposes requirements that will most assuredly result in non-compliance by permit holders because it outlines unreachable goals, does not meet the intent of the Clean Water Act requirements relative to MS4 discharges, and will definitely result in increased taxes for the all taxpayers of the City of Springfield.

Section 101(a)(1) of the Federal Water Pollution Control Act (Clean Water Act) states that “it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985.” The goal was idealistic back then and is even more so today when considering the overall responsibilities of water, wastewater and stormwater utilities. For every goal we set and every project we undertake, we “wish” for perfect results, such as those described above, but the reality is no community is able to achieve that perfection. We live and work in a practical world and we need practical solutions that are affordable to our community.

Unfortunately, the draft MS4 permit seems to have been written to demand perfection in an imperfect world. Stormwater discharges cannot be practically eliminated and/or

treated to meet water quality standards. The proposed permit language is not feasible and establishes requirements that are unattainable. As a municipal City Engineer it is difficult to understand why regulations would be imposed that are not science-based, real-world feasible and cost prohibitive. If this premise is confusing to the municipal professional how do we explain this to our taxpayers?

Please consider the following issues included in proposed draft permit:

1. Section 2.1 (page 12) states that, “pursuant to Clean Water Act 402(p)(3)(B)(iii), this permit includes provisions to ensure that discharges from the permittee’s small MS4 do not cause or contribute to an exceedance of applicable water quality standards.” A check of this section of the Clean Water Act (CWA) reveals no mention of water quality standards or requirements for MS4 discharges to not cause or contribute to an exceedance of said standards. Rather, **the law** states that MS4’s must remove pollutants in stormwater to the maximum extent practicable (MEP), a term undefined in the CWA but which explicitly establishes that there are cost and reasonableness considerations to stormwater pollutant removal by municipalities.<sup>1</sup> In crafting the 1987 amendments to the CWA that established the MS4 program, Congress recognized that achieving water quality standards in something so variable and often times uncontrollable as municipal stormwater was so daunting and unlikely that a new standard, MEP, must be applied. EPA has effectively ignored this reality of the law in drafting a permit that requires compliance with water quality standards. It is not until section 2.4 on page 18 that MEP is raised as a permit condition. In this section MEP is properly described and the BMP approach to meeting MEP through an iterative process is appropriately offered. It is suggested that all language in the water quality section of the draft permit be stricken and the permit begin with the language from section 2.4. Per the CWA, MEP is the standard to which pollutants must be removed. Achieving MEP may not, and is unlikely to, achieve water quality standards in MS4 discharges. MEP does not equate to achieving water quality standards as the cost and effort involved to meet the standards will rarely be feasible for a municipality. Achievement of water quality standards and requirements that MS4 discharges not cause or contribute to exceedances of water quality standards can only be set as goals in a stormwater permit if the permit is to be consistent with federal law.
2. Section 2.2 is a continuation of the “achieve water quality standards” requirements of the draft general permit with a focus on impaired waters and TMDL waste load allocations (WLA). The TMDL WLA is effectively a numeric water quality standard that permittees are directed to achieve. For phosphorus, Section 2.2.1(d)(i) requires that “The permittee shall develop a written plan to assess the amount of phosphorus discharged from the MS4 to the waters identified in Appendix G, Table G-1 and to **reduce the phosphorus to levels consistent with the assumptions and requirements of the LAs and WLAs of the**

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<sup>1</sup> The Random House College Dictionary Revised Edition, 1988, defines practicable as “capable of being done, effected, or put into practice, with the available means; feasible”

TMDL.” Permittees are given 3 years to develop the written plan and 7 years to complete implementation. A check of Appendix G, Table G-1 reveals that phosphorus removal requirements of TMDLs can range up to 97% for some ponds! Table G-1 identifies specific numeric phosphorus reduction values for each town and each impaired water with values of 50%-97% not uncommon. These are numeric water quality requirements that go well beyond any interpretation of MEP. Requiring municipalities to achieve these phosphorus reduction levels is impracticable. The more appropriate permit language would be to the effect that the MS4 must remove phosphorus to the MEP from discharges to impaired waters with TMDLs for phosphorus.

3. Section 2.2.1(e), directs permittees in the Connecticut and Housatonic River watersheds to identify sources of nitrogen discharged from their MS4 within 2 years and implement practices to maintain or reduce nitrogen discharges within 4 years based on a Long Island Sound TMDL for nitrogen. This section is confusing as Appendix G stipulates that the TMDL requires a 10% reduction in MS4 nitrogen while the permit only requires that MS4 nitrogen be maintained or decreased. It is further unclear what baseline levels of MS4-derived nitrogen are for each community. Given the variability of stormwater even for a given outfall, a municipal stormwater manager will have great difficulty assessing whether nitrogen levels are being maintained or decreased.

There are also a number of science-based concerns about the on-going Long Island Sound (LIS) effort and applying prior approaches to new areas of nitrogen control such as storm water. The first, and most obvious, is the “one size fits all” approach to removal requirements. In the past discharge sources, through their NPDES requirements, are treated the same regardless of the distance between the discharge location and the LIS. A nitrogen discharge located directly on the LIS will have more impact than one located on the northern extremes of the Connecticut watershed many miles away. One can even question if that nitrogen ever reaches the LIS and if not, why should it be regulated at all? We also question the expenditure of public funds to solve a problem which may not exist.

Determining nitrogen loadings from storm water discharge points is a very unrealistic task to perform. This calculation requires representative sampling, calculation of flow, and calculation of a dilution for the receiving water. All of these components will change for every storm and will involve a significant amount of resources to accomplish. There are also a number of issues which scientists need to study for storm water (not treated WWTP effluents) in order that removal requirements are properly applied. These include: the nature of the proteins which make up the traditional forms of nitrogen used for regulation and their behavior and treatability; the differences between river and saline waters with respect to nitrogen removal; and the travel time necessary for nitrogen removal to levels which have no meaningful impact with respect to dissolved oxygen usage. A majority of storm runoff is from paved surfaces which will have low levels of nitrogen. Runoff from lands involved with fertilizers can contribute

various quantities of nitrogen. Consequently, the regulatory effort should place responsibility for removal with the users of the nitrogen source, not with the owner of the discharge location, especially if that owner has no control over the upstream users.

4. The requirements related to TMDLs and WLAs raises the issue of the adequacy of the TMDLs for regulatory purposes. It is quite difficult to comprehend how a seashore community on Cape Cod can have a TMDL that determines its MS4 is a negligible source of nitrogen while an inland community in western Massachusetts has a TMDL that directs it to reduce nitrogen from its MS4 by 10% in order to help prevent anoxia in Long Island Sound. For instance, Belchertown (population 13,000) is 70 miles from the coast yet has a TMDL WLA for nitrogen requiring 10% reduction from its MS4. Falmouth (population 33,000), which is on the coast, has a TMDL that states its MS4 nitrogen load is negligible. In a similar manner, Paxton (population 4,000) must achieve a 50% reduction in phosphorus loading from its MS4 to meet the TMDL WLA for Leesville Pond. This impaired water is located on the Auburn-Worcester line and is 5.5 miles from the nearest possible Paxton MS4 outfall. Stormwater from Paxton must first flow through 5 ponds and reservoirs before it arrives at Leesville Pond. These examples highlight the inconsistencies and questionable science behind many, if not most, of the TMDLs referenced in this draft permit. While these TMDLs may be somewhat useful as general planning tools they lack validity to be used for regulatory compliance purposes as directed by the draft permit.
5. Section 2.3.3 Antidegradation on page 17 requires the permittee to notify EPA and DEP at least 60 days prior to commencement of a new or increased discharge. An increased discharge is defined in section 2.3.1 as a stormwater discharge that commences after the effective date of the permit and is the result of the creation of one or more acres of impervious surfaces. It is unclear in Section 2.3.3 whether EPA or DEP will be issuing a response to this notification and, if so, under what timeline. This requirement could potentially delay construction of new public and private projects and impact local development approvals.
6. Section 2.4.2.1(c)(i) requires that MS4s with more than 50% of residents served by septic systems or subject to a TMDL for nitrogen shall conduct public education on septic system maintenance. While this requirement may or may not be onerous for a municipality it does call into question the applicability to a stormwater permit. Septic systems discharge below the ground and are not within the jurisdiction of the Clean Water Act. The only link between a MS4 and a septic system would be an illegal connection between the system and the MS4 or breakout from the septic system that flows into the MS4. Both of these cases would be addressed through the mandated IDDE program. For EPA to require public education about septic systems or any other condition pertaining to septic systems that are not an illicit discharge to an MS4 is beyond its authority to regulate through this permit.

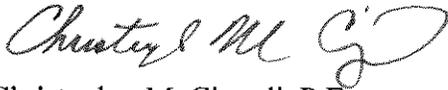
7. Section 2.4.4.1 states that “SSOs are illegal and shall be eliminated.” While SSOs are not desirable, to state that they are “illegal” and must be “eliminated” is akin to demanding that a public water system “eliminate” all leaks. SSOs happen in all sanitary sewer systems. Managers should take measures to reduce occurrence and frequency but to require elimination of SSOs is impracticable and not realistic.
8. Section 2.4.4.8(g) on page 31 requires that MS4s complete the IDDE investigations of the entire system within 7 years and all high, medium and problem catchment areas within 5 years. This schedule is daunting and may be impracticable and / or impossible for many municipalities.
9. In a City such as Springfield, we have been attempting to be as forward thinking as possible with in the review of new projects proposed within our community. In an attempt begin moving in the proper direction with compliance of the proposed MS4 permit, we have attempted to introduce as much infiltration of stormwater as possible in our new projects, both public and private. What we have realized is that by introducing this practice, as recommended by the EPA, we are reducing the amount of “clean” water in our drainage systems, therefore, we anticipate that concentrations of contaminants will initially increase, especially in the early phases of permit compliance. So simply by attempting to comply with the permit requirements, we will be in non-compliance with the permit requirements. Seems extremely impracticable.
10. While individual ordinances, assessments and inventory requirements may not appear all that onerous, in total these requirements will place an enormous burden on municipalities and will likely lead to non-compliance. For example, MS4s must, within 1 year, complete written procedures for site inspection and enforcement of sediment and erosion control measures at construction sites and complete procedures for site plan review. Within 2 years the MS4 must amend, modify or develop an ordinance or regulation requiring development projects to comply with State Stormwater Management Standards, develop a report assessing current street design and parking lot guidelines that affect the creation of impervious area and complete an inventory and priority ranking of MS4-owned property with potential to be retrofitted to reduce stormwater discharges. Within 3 years the MS4 shall develop a report assessing local zoning and building codes and how they may be modified to allow “green” construction practices. MS4s are typically managed by public works departments, sewer departments and highway departments. Even if a stormwater utility is created, that is essentially a funding mechanism for work to be done by the aforementioned municipal entities. These local agencies must also operate sewer and water systems, keep streets passable during all weather conditions, maintain traffic control, maintain municipal buildings, grounds and parking lots, maintain parks and recreation areas, collect and dispose of trash and recycling and manage the financial aspect that allows all of this work to get done. Municipalities cannot shirk their other responsibilities in order to make stormwater management top priority. To think otherwise, as EPA

apparently does, given the requirements in this draft permit, is in line with Congress establishing a goal to eliminate all pollution by 1985. It is unrealistic, unreasonable, impracticable, and unaffordable.

The City of Springfield appreciates the opportunity to comment on this significant draft permit. The City has been a responsible environmental steward and protector of natural resources for more than 100 years and plan to continue for the next 100 years. By working cooperatively with other MS4 communities and utility entities, US EPA and MA DEP, we believe a common-sense approach can be utilized to develop a municipal stormwater permit that takes into consideration environmental benefits based on science, economic feasibility, and social responsibility. The Commission would support a permit that involves rational collaboration to establish requirements that successfully protect the public health and safety, economic viability, and quality of life in our communities.

Respectfully submitted,

City of Springfield  
Department of Public Works – Engineering Department

A handwritten signature in cursive script, appearing to read "Christopher M. Cignoli".

Christopher M. Cignoli, P.E.  
City Engineer