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Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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BY FIRST CLASS MAIL AND EMAIL

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Re: MassDEP Comments on EPA's Draft 2014 MS4 permit

Dear Mr. Tedder,

This letter provides comments and suggestions to EPA on the draft Municipal Separate Storm Sewer permit (MS4) published for review in the Federal Register on September 30, 2014. There are many important and positive elements in this 2014 draft MS4 permit. EPA has solicited considerable input on its draft permit and we believe that such a collaborative approach is warranted and appropriate. EPA should be commended for using the public review process to revise and build upon previous proposals to publish this much improved draft MS4 permit.

In developing these comments, MassDEP has drawn from experiences in addressing stormwater issues and is also taking the views of stakeholders who care about the program and how it is implemented into consideration. Although MassDEP's signature block is on the publicly issued draft permit as a co-issuing authority, the final decision of whether the Commonwealth will co-issue the MS4 permit with EPA will be made when the terms of the final permit are clearer. We are providing EPA these comments in a constructive spirit of seeking changes that will clarify and streamline the permit, to help make it more effective in improving water quality while remaining mindful of how best to assist municipalities in implementation.

Stormwater is the single largest source of pollution to the Commonwealth's rivers, streams, lakes and ponds, and MassDEP appreciates EPA's efforts to improve the effectiveness of the 2003 permit. The changes proposed with our comments will preserve the environmental gains contemplated by the draft permit while doing so in a more achievable, efficient and cost-effective manner. We look forward to working with EPA on the final permit terms.

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

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Costs

As regulators, EPA and MassDEP each must acknowledge that resources at the local level are scarce and focus on actions that will yield the most environmental benefit. Moving toward an integrated and efficient set of federal and state stormwater rules is a key part of meeting those very real challenges. As described in detail below, EPA should consider the permit's requirements in light of this perspective.

The costs to implement the proposed MS4 permit are a major issue to be considered in the specific terms of the permit. Recent work suggests that costs can be both high and can vary significantly based on the activity.

In 2011-2012, EPA's months-long Sustainable Stormwater Funding Project estimated the expenditures at that time of stormwater work to meet the six minimum control measures of the 2003 permit for three Massachusetts Towns:

- Bellingham existing costs: \$212,439 per year
- Franklin existing costs: \$940,590 per year
- Milford existing costs: \$668,241 per year

Next, EPA estimated how those costs would increase if the MS4 program requirements were expanded as proposed in its 2010 draft. Using the 2010 draft of the MS4 permit as a base, and including an additional contingency amount for unanticipated expenditures, EPA estimated the following costs for complying with the six minimum control measures:

- Bellingham proposed 2010 permit costs: from \$729,286 per year to \$865,563 per year
- Franklin proposed 2010 permit costs: from \$1,436,347 per year to \$1,704,455 per year
- Milford proposed 2010 permit costs: from \$729,286 per year to \$1,244,470 per year

In other words, EPA estimated MS4 costs for implementing the 2010 draft permit requirements would increase in these 3 Towns by approximately \$60,000 to \$760,000 per year. While it is unclear how much those costs will change for implementation of the 2014 permit terms, there are reasons to believe that the increases will be in the same order of magnitude as the estimates from 2010.

In this 2014 draft permit, EPA provided some cost information in the Fact Sheet which is lower than the cost information from 2010, including estimates for implementing each of the six minimum control measures. EPA estimated a range of costs for implementing the 2014 draft permit from \$66,000 to \$518,000 per year. These figures exclude contingency costs. Adding contingency costs, as EPA did for those 3 Upper Charles Towns in the estimates done for the draft 2010 permit, would represent a more reasonable annual cost estimate.

In addition, EPA's cost estimates do not include work related to meeting impaired waters or TMDL requirements. That work will include both operational expenditures (e.g., tracking pollution loadings for every new development and redevelopment project subject to impaired waters or TMDL permit rules) and the capital cost of BMPs to reduce pollutants to meet impaired water or TMDL goals. Those capital costs will be significant, although they have not been estimated for the 2014 draft permit implementation. Although not a precise correlation, when EPA estimated capital costs associated with implementing the proposed Residual Designation

Authority requirements in the Sustainable Stormwater Funding Project, Bellingham's capital costs were estimated to be over \$23 million; Franklin's over \$62 million; and Milford's costs over \$67 million.

With Massachusetts' Towns facing continual budget pressures for many necessary programs, EPA should recognize that costs will have significant effect on communities and the final permit should be adjusted to eliminate unnecessary requirements and to consider the timing needed for such significant resources.

EPA's Rules Should Harmonize its MS4 rules requirements with the Commonwealth's Stormwater Standards.

The municipalities subject to this proposed permit play a critical role in managing municipal stormwater discharges that flow into our water bodies. MassDEP recognizes the importance of actions such as identifying and eliminating illicit discharges, requiring modern stormwater Best Management Practices (BMPs) for new developments and redevelopment projects, and ensuring proper operation and maintenance of stormwater systems and BMPs. In 2008 MassDEP promulgated more protective stormwater rules as part of the Commonwealth's Wetlands Regulations. Building on the first Massachusetts Stormwater Standards issued as policy in 1997, the 2008 revisions increased infiltration and treatment requirements, mandated consideration of Low Impact Development techniques and made a number of other protective changes for projects within areas of wetlands jurisdiction.

In order to meet EPA's 2003 MS4 requirements for locally enforceable mechanisms to manage construction and post-construction stormwater impacts, some Massachusetts Towns adopted the Massachusetts Stormwater Standards instead of developing a separate set of stormwater rules. That was a wise decision. MassDEP believes that EPA should build on that successful experience by using the Massachusetts Stormwater Standards as the basis for its successor MS4 permit, rather than requiring a second federal-only layer of permit requirements on top of the existing Massachusetts Stormwater Standards.

It is critical for municipalities, developers, and environmental advocates that EPA and MassDEP work together toward our common environmental goals. Uniting together behind the framework of the Massachusetts Stormwater Standards as the tool that all of us in Massachusetts will use to reduce stormwater pollution discharges will make that essential job easier for everyone. MassDEP recommends that EPA move in the direction of harmonizing the federal requirements with the Massachusetts stormwater rules as much as possible, and avoid establishing new and separate stormwater management criteria. MassDEP provides additional comments on the benefits of this harmonization below.

Towns Must Be Given Sufficient Time and an Adaptive Schedule for Implementing Improvements and Pollution Reduction Goals.

The timing of when municipalities must begin to implement pollution reduction goals determined through the TMDL (Total Maximum Daily Load) process is crucial. MassDEP suggests that EPA take into account Towns' comments regarding the time needed to achieve those goals. It took decades to build the Commonwealth's existing impervious areas (such as roadways, rooftops and parking lots that contribute to stormwater pollution). Those areas not only add contaminants to stormwater, they also redirect flow and in some cases prevent recharge through natural percolation to the groundwater. Changing the urban environment in Massachusetts to

mitigate these effects, achieve TMDL load reduction goals and improve water quality in our receiving waters will likewise take years of steady effort.

MassDEP supports EPA's proposal to allow time for Towns to develop plans for stormwater-related water quality improvements recommended in the TMDLs, to implement those plans and thereby achieve TMDL reduction goals. That process should be adaptive and recurring so that as these improvements are being made Towns have the ability to consider pollution reductions from others sources. EPA should assure Towns will have the adaptive flexibility needed to concentrate on the most cost-effective pollution reduction measures, whatever their source.

MassDEP Supports Efficient Implementation: Developing Outreach Materials and Modeling Tools.

MassDEP encourages EPA to create models, templates, and other transferrable tools for cities and towns to use in implementing the permit. Providing standard tools, templates, models, reporting forms and informational brochures will make the implementation of the permit more efficient and cost-effective for Towns. General informational materials or templates that can be customized will facilitate the availability of accurate information from local authorities, as well as reduce costs by each city or town to produce these materials.

In addition to MassDEP's support of the draft permit's elements and the general points outlined above MassDEP has the following additional comments and recommendations for improvements.

The Matrix of Applicable Standards Included in the Draft Permit is Confusing.

There is a significant shift in approach from the BMP-based program envisioned in the 2003 permit to the current draft which includes additional provisions to ensure that discharges from small MS4s do not cause or contribute to an exceedance of water quality standards. These requirements add to the maximum extent practicable reductions required through implementation of BMPs and recast water quality standards as enforceable "effluent limitations" of the permit. This approach moves the MS4 program well away from a BMP-based program with a maximum extent practicable (MEP) standard by adding new "water quality based effluent limitations" to this part of the stormwater program. The Fact Sheet for the draft permit relies on a federal decision, Defenders of Wildlife v. Browner, 191 F.3rd 1159, 1165 (9th Cir. 1999) to support the incorporation of the new water quality based effluent limitations. However, the Defenders of Wildlife case held that reductions to the maximum extent practicable are the standard for MS4 discharges. Id. at 1165. MassDEP requests that EPA clarify that MS4 dischargers must meet the water quality based effluent limitation provisions in the permit to the maximum extent practicable, and also acknowledge feasibility and costs to achieve those reductions as part of that standard.

EPA's choice of applicable standard has cost implications. MassDEP has concerns that water quality-based effluent limitations will ultimately require additional resources to support additional pollution control technologies or other measures beyond the maximum extent practicable standard set forth in the federal Clean Water Act. These measures may be extremely costly and it is possible that they would not make any substantial improvement in water quality. MassDEP urges EPA New England to modify the permit requirements to ensure that its intent is clear and the applicable standards and associated municipal obligations are unambiguous.

Administrative and Reporting Requirements Should Be Streamlined

The permit includes many administrative and reporting requirements. MassDEP has identified 252 actions, reporting and tracking requirements, not including actions, reports and tracking needed for impaired waters and TMDL goals. MassDEP suggests that EPA minimize those that do not have a direct relationship to stormwater pollution reductions. Further, administrative reporting and tracking conditions should be consolidated and streamlined as much as possible, making compliance work easier and less costly for Towns.

Without revisions that address this administrative burden, cities and towns would spend considerable time, energy and resources on reports and other administrative tasks. A permit that focuses municipal resources and efforts on actions that directly reduce stormwater pollution is more likely to achieve sustained environmental benefits.

Detailed below are some specific proposals that are examples of what EPA should consider to reduce the overall administrative burden of compliance with the MS4 permit.

- Tracking TMDL Reductions gained by each project. EPA's proposed method to track TMDL-related pollution reductions is a labor-intensive mathematical calculation of mass reduction down to what appears to be grams per year from every municipally-regulated land use development and redevelopment. Further, monitoring of the receiving waters is a better measure of success for the TMDL-related components of the MS4 permit. A related concern is that the proposal opens up the issue of whether the use of scientifically validated methods for modeling pollution loadings measured in multiple pounds per year over square miles is appropriate for measuring ounces of pollution loadings over sites as small as one acre. Instead, EPA could require Towns to show progress toward meeting the percentage reduction targets commonly used in TMDLs.
- Illicit Discharge Detection and Elimination (IDDE). The proposed IDDE requirements – which include the individual ranking of the catchment for every outfall (except excluded catchments) using 12 different System Vulnerability Criteria, mandating higher rankings for catchments in areas served by a sewer or stormwater system 40 years of age or more – divert monies that could be used to eliminate illicit connections. Instead municipalities are expected to create and maintain a complex tracking and ranking system. EPA could simplify these requirements to concentrate its regulatory attention solely on requiring cities and towns to identify and remove Illicit Discharges from *Problem Catchments* and *High Priority Catchments* and remove requirements for *Low Priority Catchments*. EPA also should refine its definitions of what constitutes *High Priority Catchments*. Since virtually all sewer or stormwater systems in Massachusetts are at least 40 years old, using that age as a determinative criterion results in categorizing entire MS4 systems *High Priority*. That kind of broad requirement does not help Towns to narrow their attention, focus and budgets on areas that need immediate attention.
- Tracking materials removed from each catch basin. The requirement that Towns track and annually report the volume or mass of material removed from each catch basin draining to all water quality limited waters will, in a Town with limited resources, reduce funds available for cleaning catch basins.

- New inspector qualifications; retaining “as built” drawings. Requiring Towns to develop and report the qualifications necessary to perform construction site inspections, or to review and keep “as built” drawings for each BMP constructed, will not necessarily increase inspections or ensure that BMPs are constructed or maintained properly.
- Align MS4 construction conditions with federal Construction General Permit standards and State Stormwater Standards. EPA should consider limiting its changes to the Construction minimum control measure to requiring Towns to adopt by reference the federal Construction General Permit and/or Standard 8 of the Massachusetts Stormwater Standards. Both of those systems are being used routinely throughout the Commonwealth by regulators and developers alike. The imposition of either one provides greater environmental protection than that currently required in the 2003 permit and does it more efficiently.
- Align definitions with State Standards. EPA should use the definitions of development and redevelopment already used in the Massachusetts Stormwater Standards. Among other benefits, that action would ensure that the scope of redevelopment requirements would be limited to the area being redeveloped.

Using the Framework of the Massachusetts Stormwater Standards Will Further Reduce Stormwater Pollution and Reduce the Administrative Burden for Towns and Developers Alike.

MassDEP’s strongly urges EPA to use the framework of the Massachusetts Stormwater Standards in the post-construction minimum control measure. Since 1997 all 351 Massachusetts Towns have used the Massachusetts Stormwater Standards to manage stormwater in wetlands jurisdictional areas. Many Towns are already using the Massachusetts Stormwater Standards for their local stormwater bylaws, and this proposed change would require these Towns to abandon their current practices and adopt a new and unfamiliar federal mandate.

Developers, Conservation Commissioners and Agents and other Town officials routinely use these standards, which require on-site infiltration, treatment and various other measures to reduce pollution from stormwater in wetlands jurisdictional areas. Adding this different federal standard creates a cost, time and administrative burden for every for every development and redevelopment project that occurs in both areas of wetlands and subject to MS4 regulation, requiring developers to show that their proposals now meet two different sets of stormwater rules .

In its 2010 and 2011 draft MS4 permits, EPA wisely proposed to build on that solid foundation of expertise and familiarity by requiring Towns to use the MA Stormwater Standards in Urbanized Areas as part of its MS4 requirements. Layering different federal stormwater rules on top of the successful and commonly understood state stormwater standards creates a significant administrative burden for all 260 MS4 Towns.

From a technical standpoint, EPA’s proposal to use a different metric for treatment (“Provide the level of pollutant removal equal to or greater than the level of pollutant removal provided through the use of biofiltration . . .” instead of the Massachusetts requirement to reduce TSS by 80%) creates an additional

technical burden for every Town, developer and practitioner subject to both state and proposed federal stormwater rules.

All MS4 Towns are already using the definitions of new development and redevelopment from the MA Stormwater Standards. Although EPA does not define those terms in its proposed MS4 permit (which itself is a problem), in its MS4 public meetings EPA has used those terms differently than they are used in the MA Stormwater Standards. Explicit or implicit creation of different definitions of those terms will create confusion and inefficiencies. Adoption of the framework of the MA Stormwater Standards will solve that problem.

If EPA believes that the current runoff depth requirements in the Standards are not protective enough (for example, new developments must treat at least ½ inch of runoff) it can simply increase those volumetric numbers used in the Standards. That kind of change (for example, increasing the Massachusetts' Stormwater Standards' required infiltration depths of 0.6" for Class A, 0.4" for Class B, 0.25" for Class C and 0.1" for Class D soils) would be easily understood and could be readily incorporated into Towns' and developers' existing expertise and practice, and does not require a new and overlapping federal mandate to increase environmental protection.

EPA Should Take the Lead in Developing Water Pollution Credit Trading Programs

As Towns face the challenge of meeting EPA's draft MS4 permit requirements for reducing pollutants described in approved TMDLs, MassDEP believes that EPA should take the lead in developing and implementing watershed-wide water pollution credit trading programs. Establishing such programs can allow Towns to reduce pollution reduction costs by creating opportunities and incentives for those pollution reductions to occur at locations where pollution reductions costs are lower. For example, a large commercial or agricultural operation implementing cost-effective nutrient controls for stormwater could "credit" (trade or sell) those reductions to municipalities where further reductions may be more expensive and more difficult to achieve. MassDEP believes that the promise of watershed-wide water pollution credit trading programs is more likely to be fulfilled if EPA takes an active role in developing such a system.

A Number of Corrections to the Impaired Waters and TMDL Sections Are Needed

MassDEP has the following specific recommendations regarding TMDL issues found in the Fact Sheet and Appendix F.

Draft Fact Sheet:

Page 30, pp 2: Lists of the final Bacteria and Nitrogen TMDLs appears to be incorrect.

- Final watershed- wide Bacteria TMDLs are: Neponset, Buzzards Bay, Cape Cod, Charles, Narragansett/Mt Hope Bay, North Coastal, Shawsheen, South Coastal, Taunton. Individual waterbodies with final pathogen TMDLs are: Little Harbor (Cohasset), Palmer River, and Three Bays, Frost Fish Creek and Muddy Creek on Cape Cod
- Final Nitrogen TMDLs are *certain waterbodies* in: Nantucket, Cape Cod and Buzzards Bay watersheds

- Page 30, pp 2: It is important to note that the approved Massachusetts Estuary Program (MEP) Nitrogen TMDLs estimated a Nitrogen stormwater waste load allocation (WLA) from impervious areas within 200 feet of the embayment, but that load was not directly measured. EPA should consider how estimated load affects its requirements in Appendix F.
- Page 30, pp 3: Currently there are 14 approved pathogen TMDLs, not 15.
- Page 31, pp 2: *“Evidence suggests”* should be supported by reference(s).
- Page 31, pp 2: The revision of the current (2000) Long Island Sound (LIS) TMDL is not expected to be finalized soon. It is not appropriate to base MS4 nitrogen reduction requirements on an anticipated future, unapproved TMDL. This is particularly important when EPA states in the draft MS4 permit Fact Sheet that Waste Load Allocations for MS4 sources in the LIS TMDL currently in place may already be met. .
- Page 34, pp 1: The draft Fact Sheet states that duckweed amounts in the Assabet River are still excessive based on 2012 data. More recent MassDEP and USGS data show a significant reduction in duckweed at all monitoring stations. EPA should update the information in the Fact Sheet to reflect this new information.
- Page 34, pp2: The Draft Fact Sheet states that dam removal has not been completed. This is correct, but it also should be acknowledged that the Towns have rejected the dam removal recommendations in the TMDL and removal at a future time is unlikely.

Appendix F:

- Page 26, pp 1: Appendix F states *“MassDEP and EPA shall work with the permittee to develop a monitoring plan or other assessment plan the permittee will use to evaluate the effectiveness of the Lake Phosphorus Control Plan (LPCP) or other work the permittee has conducted in restoring the waterbody. The permittee shall work with MassDEP and EPA to develop the alternative analysis plan and keep the written plan as part of their SWMP. Until the production of a written alternative analysis plan with input and assistance from MassDEP and EPA, the permittee remains subject to the requirements described in Parts II.1-2 above.”*

Comment: Due to resources constraints the amount of input and assistance available from MassDEP’s monitoring staff to help permittees develop individual alternative analysis plans may be very limited.

- Page 27, pp 1: Incorrect list of approved Pathogen TMDLs - Pathogen TMDLs are *not* approved for: Blackstone River Watershed, Concord River Watershed, Ipswich River Watershed, and the Merrimack River Watershed. In addition, there is an approved Pathogen TMDL for the Neponset watershed, but not for the Boston Harbor watershed.
- Page 27, pp 1: Appendix F acknowledges *“the goal for these bacteria or pathogen TMDLs is for the bacteria or pathogen concentration in each waterbody to meet the water quality standards for the designated uses of the water body. The WLA for all waters with applicable bacteria or pathogen TMDLs is set at the state water quality standard for the indicator organism for that water body at the time of TMDL development.”*

Comment: The water quality standards for pathogens (bacteria) and in some cases the indicator organism has changed since the development of many of the pathogen TMDLs. MassDEP monitors and assesses bacteria impairment based on the current water quality standards and consolidated assessment and listing methodology (CALM). To determine if the waterbody is meeting standards and can be de-listed from the impaired list (i.e., meets the TMDL) MassDEP would not necessarily be assessing the indicator organism listed in the TMDL and this MS4 permit. In addition, EPA has recently requested many states to ensure that their Surface Water Quality Standards comply with recently developed EPA criteria for bacteria; these new criteria, in some cases, are different than those in the MA SWQS. This discrepancy should be spelled out in the MS4 permit so the permittee is monitoring for the correct indicator organism to assure that compliance with current water quality standards can be assessed.

Page 38, pp 1: It should be noted that Cape Cod communities are currently focused on challenging decisions related to complex and expensive nutrient management issues for their estuaries. The source of the overwhelming majority of the nitrogen load on the Cape has been identified as discharges from septic systems. MassDEP, EPA, and the Cape Cod Commission are coordinating on an update to the existing area wide management plan (in accordance with Section 208 of the federal Clean Water Act) in an effort to design options for municipal comprehensive wastewater management planning to address these significant water quality issues. EPA should take care in these communities that the burden of this new MS4 permit does not delay or overshadow this regional effort, particularly when it has been acknowledged in all of the approved MEP TMDLs that the stormwater WLA is insignificant compared to wastewater sources.

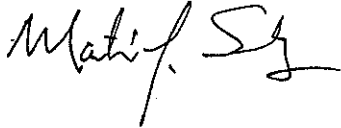
Page 43, pp 1: There is some evidence that the upper basin states that contribute to the Long Island Sound (LIS) watershed may already be complying with the current LIS TMDL requirements for nutrient load reductions. The LIS TMDL workgroup is currently evaluating the status of the TMDL implementation progress and effectiveness. MassDEP questions whether the new MS4 permit's TMDL requirements ought to apply to Massachusetts given the Commonwealth's contribution may already have been sufficiently reduced.

Page 53, pp 1: Appendix F states: *"There are currently five approved metals TMDLs for a waterbody segment in Rhode Island that that identifies urban stormwater discharges in Massachusetts as sources that are contributing metals (Cadmium, Lead, Aluminum, Iron) to the impaired segment. The TMDLs include the Upper Ten Mile River, Lower Ten Mile River, Central Pond, Turner Reservoir and Omega Pond TMDLs¹. Table F-12 lists municipalities in Massachusetts identified in the TMDLs as containing MS4s contributing metals to the impaired waterbody segments in Rhode Island, the impaired receiving water, the approved TMDL name, and the pollutant of concern. "*

Comment: MassDEP has previously commented on Rhode Island's draft TMDL with regards to metals impairment and concluded the following: Based on the most recent state line data Massachusetts flows would not impair Ten Mile segments for metals (total aluminum, dissolved cadmium, total iron, dissolved lead) and consequently will not move forward with a TMDL. It should also be noted that since the sampling was carried out in 2007 the Attleboro and North Attleboro plants have new NPDES effluent limits for metals. The load reductions for metals in the RIDEM TMDL at the state line are not representative of the current condition with respect to permitted facilities in Massachusetts. As such, it's inappropriate to impose MS4 metals reduction requirements to these Massachusetts communities.

MassDEP thanks EPA Region 1 for the considerable time and energy it put into developing this draft MS4 permit and its willingness to continue to consult with MassDEP. Whether MassDEP ultimately adopts and issues the MS4 permit under the Massachusetts Clean Waters Act will be a matter very carefully considered as the terms of the final permit become clearer. In any case, MassDEP will provide technical assistance to municipalities to support successful permit implementation and water quality improvements. Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Martin Suuberg". The signature is written in a cursive, flowing style.

Martin Suuberg
Commissioner

cc: Curt Spalding, Regional Administrator, EPA Region 1