

NEPONSET RIVER WATERSHED ASSOCIATION

2173 Washington Street • Canton, MA 02021
Phone 781-575-0354 • Fax 781-575-9971 • www.neponset.org

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David Gray
US EPA, Suite 1100 (CIP)
One Congress Street
Boston, MA 02114

RE: Draft NPDES Permit for the City of Worcester's MS4s

Submitted by Steve Pearlman, Advocacy Director

The City of Worcester is, of course, located nowhere near the Neponset River watershed. We are commenting on this draft MS4 permit, however, because it may set precedents that could be applied to communities within our watershed. Worcester's draft permit is, we understand, the first to be issued since EPA and MassDEP have become more serious about controlling in stormwater pollutants that are subject to TMDLs. The Neponset River watershed has a final pathogen TMDL that is very similar to Worcester's draft TMDL.

We are told by others that the draft MS4 permit is a great improvement over Worcester's current permit, with stricter requirements imposed on the City. We are very supportive of such improvements. We are particularly glad that you are proposing sound monitoring requirements for illicit discharges to the MS4s. Such monitoring is essential.

We are concerned, however, about the failure of the draft permit to address discharges to water bodies subject to the draft pathogen TMDL. There are a number of other provisions that we believe can be improved further, as discussed below. We apologize if some of our comments are inappropriate because the conditions we recommend are already in Worcester's MS4 permit, its NOIs, Annual Reports, or SWMP. NepRWA did not have time to read those documents.

Conditions applicable to control of pathogens

Part I.C.3.(b) of the draft permit states:

If the Permittee's MS4 discharges to an impaired water with an approved TMDL and a waste load allocation "(WLA)" has been established as identified in Attachment B of this permit that applies ... to discharges from MS4s, the Permittee shall comply with the ... specific BMPs to support the achievement of the WLA as identified in Attachment B.

Attachment B notes that a draft pathogen TMDL exists for Beaver Brook, Blackstone River, Kettle Brook, Middle River, and Mill Brook Tributary. Although that draft TMDL does indeed

contain a WLA that applies to MS4s¹, this WLA is not included in the Attachment B columns for “TMDL WLA applicable to sources that contribute to MS4 discharges” or “BMPs Supporting Achievement of the WLA and the TMDL.” The fact that the WLA does not include percentage reductions should be irrelevant. Note that Part I.C.2.(a) of the draft permit forbids discharges that cause or contribute to an exceedance of water quality standards “including numeric and narrative water quality criteria”. Based on NepRWA’s 20 years of monitoring in our own basin, there can be little doubt that virtually all urban MS4s contribute pathogens to rivers and streams.

The Massachusetts Stormwater Handbook identifies three treatment BMPs with significant pathogen removal efficiencies.² No other treatment BMPs listed in the Handbook have any significant known pathogen removal capabilities (although there is insufficient data to evaluate most of them). There is no reason why implementation of these three BMPs should not be made a permit requirement for discharges to water bodies covered by the draft pathogen TMDL, unless the permittee can show in its SWMP that they are impractical or inappropriate for specific locations.

The Fact Sheet for this draft permit states:

If the draft Pathogen TMDL is finalized and approved prior to the issuance of the final permit and includes an applicable WLA to Permittee’s MS4 discharge, EPA will incorporate into the final permit, if necessary, any additional BMPs that the Permittee must implement to support the achievement of the WLA. ***At this time, EPA believes that the conditions included in the draft permit will be satisfactory, with little or no revision, to support the achievement of the WLA. (emphasis added).***

In light of the information stated in our comments, above, we fail to see which “conditions included in the draft permit” could possibly be satisfactory to support the achievement of the WLA contained in the draft TMDL.

Part I.A. Discharges Authorized Under This Permit

4. New or Increased Discharges

This section states that new or increased discharges will become authorized thirty days from the date permittee has notified EPA and MassDEP and made information available

¹ Table 6-1 on page 35 of the draft TMDL gives the following WLA for fecal coliform (in CFU/100 mL) for Class B waters as applicable to “storm water runoff Phase I and II”: “Shall not exceed a geometric mean of 200 organisms in any set of representative samples, nor shall 10% of the samples exceed 400 organisms.”]

² Constructed Stormwater Wetlands, with a pathogen removal efficiency of up to 75%; Wet Basins, with a pathogen removal efficiency of 40 - 90%, and proprietary filter media, whose efficiencies are variable depending on the media.

to the public at the library or on its website. We see two problems. First, there is no requirement that the permittee give public notice of availability, or even identify the web address at which the information can be found. Second, there is no provision allowing the public to comment on the information or requiring EPA and MassDEP to consider any comments that might be submitted before the 30 day clock has expired. This subsection should adopt the same rules on public rights as are proposed under Part I.D.2.

Part I.C. Water Quality Based Effluent Limits

Subsection 2.(b). NepRWA is not supportive of presumptive approvals. If they are used, however, they should be applied solely to matters that are subject to public comment (e.g., information included in the SWMP).

Subsection 2.(d). BMPs identified pursuant to this subsection should be subject to the public comment process before being adopted as part of the SWMP.

Subsection 3.(b). See comments at the beginning of this letter.

Part I.D. Storm Water Management Program (SWMP)

Subsection 3. It should be specified that the EPA and MassDEP reviews shall not be completed prior to the close of the public comment period.

Part I.E. Requirements to Reduce Pollutants to the Maximum Extent Practicable

Subsections 1.(c). Although we don't know if this provision is contained in Worcester's current permit, we are very happy to see that you're asking the City to establish the legal authority to regulate stormwater management BMPs on private property.

Subsection 3.(f). Again we applaud the requirement that the City establish a program to control pollutants in private stormwater discharges to MS4s. We would very much like to see that this plan include more than just prioritizing facilities and establishing an education program that "promotes" facility-specific storm management practices. There undoubtedly are private properties in Worcester where BMPs should be *mandated*, subject to MEP. With the costs imposed on the City of Worcester by this permit, it is important that private facilities be controlled when they are contributing significant pollution to MS4s. This will save the City money as well as protect its surface waters.

Subsection 4. The provisions on land disturbance and development are excellent. We wholly approve of requiring:

- new developments to meet Mass DEP Stormwater (or equivalent) standards in uplands;
- revisions in local rules that represent barriers to LID;

- application of the Stormwater Standards (or equivalent standards) to the maximum extent practicable for small developments. It is unclear from footnote 5, however, whether these developments must only comply with only Stormwater Standards 8 - 10. There is no rationale for them not being made to comply with all the Standards; and
- DCIA reporting.

Subsection 6.(f) and (g). These provisions need to be made more specific in order to ensure that snow and ice removal and storage practices are not contributing to exceedances of relevant water quality standards. We would note that in addition to its Snow Disposal Guidance, MassDEP also has published guidance on “Deicing Chemical (Road Salt) Storage” (Guidance DWSG97-1), which is also available on its website. Control of these sources is so important that a similar requirement should be imposed on large commercial, industrial, institutional and other facilities under the provisions of subsection 3.(f) (see also our suggestions for improving that subsection, above).

Subsection 6.(h)&(i) and 7.(a): Subsection 7, entitled “Infrastructure Improvements,” requires the permittee to “continue ongoing programs to improve its MS4 infrastructure in order to reduce or eliminate the discharge of pollutants to and from its MS4.” We are unfamiliar with the nature of Worcester’s “ongoing programs,” but would suggest that upgrades of catch basins and retention and detention ponds (discussed in Subsection 6(h) and (i) of the draft permit) might be an appropriate target for upgrades since these upgrades may require little or no new land area. Volume 2, Chapter 3 of the Stormwater Handbook goes into great detail on a number of structural pretreatment BMPs that may be more effective under certain conditions than mere catch basins. It does the same for treatment BMPs that may perform better than simple retention or detention ponds.

These enhanced BMPs should be given priority when the current basins or ponds serve catchment areas tributary to a receiving water identified in Attachment B with approved TMDLs. As noted above in our comments under “Conditions applicable to control of pathogens,” this priority should be extended to the draft pathogen TMDL once it becomes final. Constructed stormwater wetlands, wet basins and some proprietary media filters are the only treatment BMPs with proven pathogen removal capabilities.

Part I.F. Monitoring and Analysis

We believe it is unnecessarily burdensome to the City to require different monitoring parameters for the various types of monitoring and screening covered under this section. We suggest that the parameters listed in subsection (4)(d) be adopted for all monitoring, with the addition of ammonia, potassium and orthophosphates.

Subsection 3.(b): If wet weather sampling is to be done during three seasons, it is equally important that dry weather sampling be done three times, since the latter will also vary

with the seasons and provide the baseline against which to evaluate the wet weather samples.

Subsection 3.(c) and (d): There are two inconsistencies between (c) and (d) that have no rationale that we can see, and should be eliminated. Grab samples should be spaced at intervals of 15 minutes each. Samples should be composited either in the field or after delivery to the lab, but not both. Finally, under subsection 3.(d) we fail to understand how you expect the city to estimate respective flows.

Subsections 4. and 5: It is duplicative and unnecessary to establish different rules for wet weather outfall monitoring for water quality (subsection 4). and wet weather outfall screening for Illicit discharges and SSOs (subsection 5). 4 should be subsumed under 5, with duplicative requirements eliminated.

Subsection 6.(c): GIS should be required if feasible and, if not, whatever mapping method is used should be able to be georeferenced so that the data can be utilized in a GIS format as well.

Subsection 8.: Any LID retrofit that is implemented to increase groundwater recharge should also be designed to reduce nutrient and or pathogen discharges if the project involves a water body subject to the nutrient or draft pathogen TMDL.

Part I.G. Storm Water Management Program Review and Modification.

All SWMP modifications should be subject to the public review requirements of Part I.D.2. and 3. Many such modifications may be as important or more important as those contained in the updated SWMP submitted by the permittee within 180 of the effective date of the permit.

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