



BY EMAIL: tedder.newton@epa.gov

February 27, 2015

Newton Tedder, Physical Scientist
U.S. Environmental Protection Agency, Region 1
5 Post Office Square – Suite 100
Mail Code – OEP06-4
Boston, MA 02109-3912

RE: Comments on Draft Massachusetts Small MS4 General Permit

Dear Mr. Tedder:

Thank you for this opportunity to comment on EPA's Draft General Permit for Small MS4s in Massachusetts. This permit involves particularly important issues for the Mystic River Watershed Association (MyRWA) – given the degree to which the waters of the Mystic River and its tributaries are negatively affected by pollution from storm sewers, leaking or improperly connected sanitary sewers, and stormwater runoff.

By way of background, the Mystic River Watershed Association is a 501(c)(3) nonprofit organization founded in 1972 by a group of concerned citizens. MyRWA's mission is to protect and restore clean water and the natural environment to a healthy state in the Mystic basin's 22 communities and to promote responsible stewardship of our natural resources through educational initiatives. As a small organization, MyRWA accomplishes its mission by forging strong links with citizens' groups, universities, businesses and government agencies.

On behalf of our organization's members and supporters, we write to thank you for proposing an amended general permit for Municipal Separate Storm Sewer Systems (MS4s) in towns and smaller cities across the Commonwealth of Massachusetts. We believe that the proposed MS4 permit represents **a significant stride** towards compliance with the federal Clean Water Act (33 U.S.C. § 1251 *et seq.*), its Massachusetts counterpart and related regulations.

Serving Twenty-Two Communities

*Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn*

20 Academy Street, Suite 306 • Arlington, MA • 02476-6401 • (781) 316-3438 • www.MysticRiver.org

I. Background

Polluted stormwater is the most serious water pollution problem in Massachusetts today. EPA Region 1 has found that stormwater causes or contributes to at least 55% of the violations of water quality standards in the state's rivers, streams and lakes. Climate change presents an additional, important reason to improve stormwater management. Most scientists expect the recent cycles of flooding and drought to become more pronounced in coming years. As a result, Massachusetts communities will need to better maintain or upgrade their aging infrastructures – to safeguard both public safety and the environment well into the future.

The conditions in the Mystic River Watershed are representative of urbanized streams throughout Massachusetts. Rivers, streams, lakes and ponds within the watershed have high levels of *E. coli* derived from sewage associated with underground infrastructure that is failing. Recreational users are frequently on water with *E. coli* levels that are above standards of the federal Clean Water Act and the Massachusetts Clean Waters Act. High levels of phosphorus have caused frequent cyanobacteria blooms, accelerated the spread of invasive plants and led to low dissolved oxygen levels. Conductivity levels in the water bodies show significant increase over the past decade – median values at multiple water bodies hover at the chronic toxicity levels.

II. Support for the Permit: General

This permit is an important step in promoting these urgently-needed changes, and we strongly support its promulgation – consistent with the comments below. We'd like to emphasize that, if in fact it is promulgated in 2015, this permit revision will end up being more than five years overdue (and we'd note that the statutory deadline for review and revision is every five years). *See* 33 U.S.C. § 1342(b)(1)(B).

The 2014 permit represents a significant improvement over the 2003 permit. It is likely to be far more effective in reducing pollution, flooding and erosion caused by stormwater in urbanized areas like the cities and towns in the Mystic River Watershed.

- The proposed Draft General Permit for Small MS4s in Massachusetts (the “2014 permit” or the “new permit”) incorporates **water-quality requirements** that directly address the pollutants that are actually causing specific Water Quality Standard violations in each affected city and town in the Mystic River Watershed.
- In many cases, the 2014 permit provides **more specific requirements and deadlines**, which should result in more timely and effective compliance than was experienced under 2003 permit.

Serving Twenty-Two Communities

Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn

- The 2014 permit affords to municipalities **adequate time and substantial flexibility** to choose compliance strategies that are best suited to local conditions. We applaud EPA's decision, in response to comments on the proposed 2010 small MS4 permit (which in the end was not issued), to eliminate certain requirements that were overly prescriptive and inflexible.
- The new permit's provisions for **greater public access and opportunities to comment** on cities' and towns' stormwater management programs will increase public knowledge about and support for these programs – an outcome essential to achieving a commitment to allocate the resources needed to deal with polluted stormwater. Greater public scrutiny will also encourage the development of more effective plans and more consistent program implementation.
- The carefully crafted requirements for a permittee's **Illicit Discharge Detection and Elimination (IDDE) programs will help guide MS4s to effectively combat the significant systematic problem of non-stormwater discharges**. We find that the scope, timescales and approach of these rules – in particular, the requirements for system mapping and sampling – to be thoughtful and appropriate.
- **The post-construction requirements for new development and redevelopment will help to prevent future projects from continuing the poor stormwater management practices of the past**. In general, EPA has chosen a balanced and effective strategy, setting a high standard for addressing stormwater infiltration (the most cost-effective way to remove pollutants from stormwater), while providing a safety valve where site conditions make meeting that standard infeasible. (We offer more detailed comments on this below).

In short, the new permit requirements ask municipalities to do better monitoring and planning, to improve implementation, to raise public awareness of stormwater issues and to design and maintain better stormwater management measures. If successful, the new permit **will result in major improvements in the management of urban stormwater in Massachusetts, with the results evident in cleaner and healthier rivers, streams, lakes, ponds and coastal waters**.

Good planning, it needs to be emphasized, **will help cities and towns reduce the cost of funding compliance investment in stormwater programs and infrastructure**. Communities can take advantage of help and support from EPA, the state Department of Environmental Protection (DEP), watershed groups and regional planning agencies. They also can work regionally to achieve economies of scale (for example, by forming and participating in stormwater consortiums); to develop and fund stormwater utilities; and to ensure that private entities assume their share of the responsibility for stormwater management.

Serving Twenty-Two Communities

Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn

III. Areas for Improvement: General

Although we strongly endorse the overall approach and requirements of the new permit, we have identified **some areas where improvements are needed:**

- **The stormwater bylaw requirements should apply to projects of a quarter or half an acre.** Most urbanized cities and towns, including many in the Mystic River basin, host very few large development and redevelopment projects. Indeed, development in these communities generally is sited on parcels smaller than an acre. However, under the new permit, projects of this size would not be required to employ *any* stormwater management measures unless they are located in wetland resource areas. This loophole will make it exceedingly difficult for many communities to comply with the proposed prohibition against new and increased stormwater discharges from MS4s.
- In addition to conducting an annual evaluation of adherence to and effectiveness of best management practices (BMPs), **permittees should be required to take corrective action** where the evaluation shows that goals and objectives are not being met. An effective iterative approach to improving stormwater management requires that problems be addressed, and not simply catalogued, as they are discovered.
- **MS4s discharging to waters impaired for bacteria or pathogens should be subject to additional requirements.** This includes ensuring that new development and redevelopment projects and retrofits implement only those BMPs that are most effective at reducing bacteria, where the waters into which these projects discharge (via an MS4) fail to meet Water Quality Standards for bacteria or pathogens. This is consistent with the requirements that EPA has proposed for other stormwater pollutants.
- **The new requirements proposed for projects discharging to waters impaired for chloride (road salt) should apply to all MS4s.** Field evidence increasingly identifies road salt as a major problem in urban areas like MyRWA's. We strongly recommend that chloride-control measures be included in all of the new permit requirements.
- **The requirement for retention of 1" of runoff for all development and redevelopment sites should be applied to the entire site area.** This concept is vital to preventing future development and redevelopment from making conditions worse. The language of the new permit should be clarified to achieve this end. This requirement ensures that the first flush, which is likely to contain the highest pollutant levels, is retained or treated. This approach appropriately encourages a developer to evaluate its entire site and to look for opportunities throughout the site for increased infiltration. This is necessary in order to ensure that redevelopment projects significantly reduce stormwater runoff and pollutant loadings. In densely-developed municipalities like those in the Mystic River basin, real improvement in controlling runoff will not happen unless this requirement is applied to the entire site area, and not just to the often very small confines of the redevelopment project itself. Although

Serving Twenty-Two Communities

Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn

total retention volume will be higher when the entire site is included, we believe that any challenges that may arise can be **adequately addressed via the “safety valve” provision** of Section 2.3.6.a.ii(a), which covers instances in which specific site conditions make compliance with the 1” requirement infeasible. The new permit should make it clear that treatment in lieu of 1” retention will be allowed only if specific site conditions render full 1” retention impossible or infeasible.

- **We recommend that permittees be required to update their existing ordinances or regulatory mechanisms or create new ordinances/regulatory mechanisms within 2 years of the permit effective date**, as needed, to incorporate all of the requirements of Section 2.3.5.
- **The compliance schedule for the Charles River Phosphorus TMDL is too long.** We support the schedule proposed by the Charles River Watershed Association (CRWA) to require TMDL compliance within 10 years. We believe that, to return the river to a healthy state, it is extremely important to reduce the pollutant input as soon as possible and to provide permittees with a variety of financial instruments that encourage investment in required infrastructure.

IV. Particular Areas of Comment

MyRWA offers the following more detailed comments on areas of the new permit that are of particular concern to its members.

A. Public Involvement and Participation

1. We support the provisions of Section 2.3.1.b, which enable the development and implementation of permit conditions collectively among more than one entity (e.g., among neighboring MS4s) – if certain conditions are satisfied. This flexibility is key to facilitating stormwater management responses on regional and watershed bases. To further encourage cooperation of this type (and the efficiencies that it engenders), private community stakeholders such as landowners and community organizations could be listed as eligible partners for satisfying permit requirements. In particular, watershed associations can play an important role in the public education and outreach efforts called for in Section 2.3.2.
2. Section 2.3.2 is fundamental to the overall success of MS4s in meeting permit discharge requirements, as widespread education will facilitate the adoption of EPA-recommended stormwater management practices. With this in mind, we suggest that the notification requirement of Section 2.3.2.c be strengthened to (i) require outreach to each audience at least once every two years, rather than a frequency based on the total permit period (as we’ve seen, the statutorily required five-year permit period in practice may be more than doubled); and (ii) require that the distribution of each

Serving Twenty-Two Communities

Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn

educational message be communicated via the Web and by one other distribution mechanism listed (e.g., via news item, brochure, poster).

3. MyRWA strongly supports Section 2.3.3.b, which requires that the permittee provide an annual opportunity for public review of the Storm Water Management Plan (SWMP) and its implementation. We know that the level of public participation this invites will be crucial to the quality of design, support and performance of SWMPs. Although all of the public participation mechanisms listed in Section 2.3.3.c are positive and appropriate, we additionally recommend specifying that the permittee consider public comments on the Notice of Intent (NOI) and SWMP, as well as those relating to annual reports and self-evaluations filed under the new permit. These documents (including annual reports and data) should be made available conveniently online by the permittee and also should be listed in the communications described in Section 2.3.2.

B. Compliance and Reporting

1. The standard permit conditions of Appendix B provide for reasonable non-compliance by permittees under exceptional circumstances, in each case requiring notification to EPA either before or after the incident. We recommend that Section B.12.b (anticipated non-compliance) and B.13.c (bypass notice) be highlighted in the body of the new permit and that permittees be additionally required to notify the public in the event of non-compliance or bypass. These public notifications should be made to the same website as the one in which the SWMP is posted, as specified in Section 1.10.1.b of the new permit. Without this addition, the strong reporting requirements of the new permit could potentially be undermined in cases where the information about permit compliance being made available to the public is incomplete due to these incidents.
2. We strongly support the provisions of Section 4.4, which require that the reporting and evaluation of permit compliance and SWMP effectiveness be included in permittees' annual reports. We recommend that the significance of this annual reporting as a mechanism for corrective action and iterative improvement of stormwater management be reinforced and highlighted by modification of Section 4.1.c. This section, which provides for EPA to modify permit compliance measures in a written response to annual reports, should be extended to (i) require a written response by EPA to each annual report, whether or not changes are recommended, and (ii) provide for a brief public comment period of 30 days, which would allow community stakeholders to review and propose changes to EPA's response.

Serving Twenty-Two Communities

*Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn*

3. Section 4.4 outlines the required elements and timing for submission of annual reports. We strongly suggest that this section encourage the submission of the annual report via an electronic format developed by EPA. Development of an electronic template for annual reports – as has been done with the NOI – will dramatically increase the capacity of regulators and the public to review compliance data. An electronic format allows for quick data compilation across many reports, increasing transparency and facilitating review by understaffed agencies.

C. Illicit Discharge Detection and Elimination (IDDE)

1. We recommend that the requirement in Section 2.3.4.4.b to identify all known locations where SSOs have discharged to the MS4 in the past five years be extended to the past ten years. Research performed by MyRWA has shown that reporting of SSOs is inconsistent across storm events and chronically underreported. Because major rain events are sporadic (indeed, it's not clear that one has occurred in the region since March 2010), a five-year window will be too short for planning purposes, resulting in few SSO locations being catalogued in response to permit requirements. The devastating March 2010 incidents would not be included, for instance.

2. We recommend the inclusion of additional language to deal with overflows not considered in this permit. There are multiple areas within the Mystic River Watershed where a section of the community is serviced by a combined sewer. We have now seen multiple incidents where constraints in the system have caused CSOs to flood residential streets. We do not believe that these incidents are being properly reported, have been identified as a public health threat or have received prioritization for correction.

3. We strongly agree with EPA's recommendation – set forth in reference to Section 2.3.4.6.b in the fact sheet for the new permit – that GIS be the preferred format for permittee system maps. GIS maps prepared using an industry-standard format would be an invaluable resource to the permittee as well as to outside stakeholders, provided that these files are made publicly available (which they should be). Indeed, this provision should be incorporated into the new permit itself – preferably listed as a requirement, except in cases where permittees obtain certification from EPA that to do so would be technically infeasible.

4. Consistent with our comments on Section 2.3.1.b (inter-entity permit conditions), we recommend that the language of Section 2.3.4.7.b. be extended to encourage regional cooperation on IDDE program implementation. Already, the section outlines conditions for multiple departments to jointly execute IDDE programs, requiring that responsibilities be defined and cooperative processes be established. Additionally, we

suggest that permittees be allowed to collaborate with nearby MS4s to develop IDDE programs, subject to the same requirements that apply to collaborating departments. Such cooperation could expedite implementation by permittees as well as increase the effectiveness of IDDE programs.

5. We strongly recommend that Section 2.3.4.7.c. include language that encourages MS4 managers to actively seek out data from other agencies and environmental groups to assist with prioritization of catchments (limited reference to outside data is found in Section 4.4.b.v.). Many watershed groups (including MyRWA) have collected water quality data on local water bodies and stormwater outfalls and this data can be extremely useful in prioritizing problem and priority catchments. In the past 15 years, MyRWA has collected 984 bacteria samples from stormwater outfalls and nearly 3,000 bacteria samples from receiving waterbodies. Other parties with significant data resources on water quality include the Massachusetts Department of Public Health, which has data on swimming beaches, and the Department of Conservation and Recreation. Without some encouragement, we believe that many permittees will rely only on the very modest levels of past monitoring, and will miss the opportunity to prioritize efforts to improve the condition of the water body as quickly as possible.
6. We recommend that the requirement in Section 2.3.4.7.d.v to analyze pollutants identified as contributing to impairments (as specified in Appendix G) be removed. MyRWA's experience in measuring phosphorus levels in stormwater at outfalls and in-stream shows that the results are highly heterogeneous over time. Factors that determine the level of phosphorus include seasonality, intensity of rainfall, timing within the storm (e.g., first flush) and period of dry weather preceding storm (e.g., wash-off dynamics). Our experience would indicate that in the case of phosphorus, results are as likely to be misleading as informative. We expect that the results from measuring other parameters will suffer from the same problem.
7. We regard Section 2.3.4.8.a as a particular strength of the new permit, as it requires dry weather sampling of all eligible catchments within a specific timeframe, with sampling data to be made public through the annual report. Although the exemption for permittees already performing monitoring under the 2003 MS4 permit or as a result of an enforcement action is appropriate, we recommend specifying that all data collected under existing monitoring be submitted in the annual report required by the new permit.
8. We recommend that the new regulations explicitly state that all permittees are expected to meet all requirements of Section 2.3.4, even MS4s that are currently under an enforcement or similar order from EPA or a state environmental agency in which an IDDE plan has been approved. An MS4 which, because of such an order, does not follow all requirements of Section 2.3.4 should describe in its SWMP how its current, approved plan is at least as effective as what Section 2.3.4 requires.

Serving Twenty-Two Communities

Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn

9. Section 2.3.4.7.c.i defines specific water sampling criteria for MS4s to follow in identifying “Problem” and “High Priority” catchments for investigation in the IDDE program. The proposed criteria are based on the simultaneous exceedance of certain thresholds in bacteria, surfactants, and ammonia. Our own analysis (see Appendix 1 below) suggests that (i) only a very small fraction of catchments are likely to qualify for prioritization under these criteria, and (ii) ammonia in particular is not significantly associated with clear indicators of sewage discharge concentration. We believe that a prioritization scheme that requires *all* of these parameters to be exceeded creates an artificially high threshold that will result in the identification of very few storm sewers as “Problem” or “High Priority” catchments. Indeed, if a large stormwater drainage were to have 50,000 *E.coli* mpn/100 ml (i.e., massive contamination) and null values on ammonia, surfactants and chlorine, the current prioritization scheme would not target it.

We therefore suggest that:

- a. Problem catchments be identified based on exceeding a bacteria threshold that is in excess of 5,000 *E. coli*/100 ml (or the *Enterococcus equivalent*);

or

Problem catchments be identified based on exceeding the recommended bacterial and surfactant thresholds, regardless of ammonia level.

- b. High Priority catchments be identified based on exceeding the bacterial threshold, catchment size and public health risk associated with pollution at the receiving body (e.g., drinking water supply, beach).

D. Discharges to Water Quality Limited Bodies with TMDLs

We recommend requiring that the requirements of Sections 2.1.1 and 2.2.1(b) and Appendix F apply to any discharges to waters that become subject to new TMDLs during the permit term – and not simply limited to TMDLs approved prior to the start of that term. There are currently no approved TMDLs in the Mystic River Watershed. Given the extended timelines for revision of the MS4 permit regulations (long past the required five-year interval), efforts to improve conditions in the degraded Mystic River will be inappropriately delayed if deployment of TMDLs must await a (possibly distant) effective date of a future permit. Such an approach will also exacerbate the differences in water quality and invested resources between sites that have received assistance in developing TMDLs and places like the Mystic River that have not benefitted from that attention. Compliance plans should be developed and SWMPs revised to include the new requirements within the first two years after the effective date of any new TMDL.

Serving Twenty-Two Communities

Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn

E. Discharges to Water Quality Limited Bodies Lacking TMDLs

1. Monitoring of urban stormwater shows consistent presence of certain pollutants that are targeted by EPA's proposed new permit. EPA is correct in pointing out that waters impaired for one or more of these pollutants do not have the capacity for additional loadings of those pollutants, and, therefore, that any loadings contributed by the MS4 cannot be allowed under the new permit. We support requiring that extra measures be taken to control pollutants discharged by MS4s into water-quality limited waters for which a Total Maximum Daily Load (TMDL) has not been established for any such pollutant (see Sections 2.1.1(c) and 2.2.2, and Appendix H). This is a sensible way to ensure that emphasis is placed on addressing the most serious water pollution problems in the Mystic River basin.
2. MyRWA supports EPA's general approach here, which requires specific, additional maximum extent practicable (MEP) requirements for MS4 discharges to water quality-limited waters. And we do not support an alternative approach – requiring permittees to develop a specific plan for each relevant pollutant. Such a requirement would be far too complex, time-consuming and costly. Rather, where necessary to protect impaired waters, EPA should demand specific targeted enhancements to the MEP requirements.
3. MyRWA also recommends the following:
 - a. The Proposed 2014 Massachusetts Integrated List of Waters should be used for this assessment, not the Final 2012 list, if the 2014 list has been approved by the effective date of the new permit.
 - b. A permittee should be allowed to rebut the presumption that specific pollutants are present in its MS4 discharges. A successful permittee would thus be exempt from the additional requirements of Appendix F.
 - c. The additional Appendix H Part III requirements for permittees discharging to waters that are impaired for bacteria/pathogens should be strengthened to include these additional MEP requirements:
 - i. Revising post-construction bylaws or ordinances to require retention of one inch (1") of runoff from all impervious areas for smaller projects (e.g., those disturbing one-half acre or more). This is particularly important in heavily-developed, urbanized areas like much of the Mystic River basin;
 - ii. Requiring that new developments and redevelopments give priority to BMPs that are effective in controlling pathogens in stormwater discharges; and
 - iii. Emphasizing BMP retrofit opportunities that effectively reduce bacteria in stormwater on permittee-owned properties.

Serving Twenty-Two Communities

*Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn*

- d. Pursuant to Section 2.1.2, any increased discharges must be authorized under the Massachusetts anti-degradation regulations (314 CMR 4.04). Conditions imposed by those regulations should be incorporated by reference in the new permit. Finally, any such conditions or requirements also should be documented in the relevant SWMP and evaluated in the permittee's annual report.

F. Post-Construction Stormwater Management

1. We support EPA's application of the so-called one-inch (1") retention standard for site development or re-development (that is, that the site be engineered to retain - without promoting runoff - the first inch of rain in a storm). As is well known, this "first flush" of runoff is often far more polluted than what follows. If this runoff is not retained, treated or otherwise controlled, it poses a serious threat to the bottom-line goal of achieving clean water.
2. To ensure that the new permit is effective and that we do not inadvertently find ourselves undermining existing progress, we believe that it is important to apply the 1" retention requirement to an entire site, once the determination has been made that it applies to the developed or re-developed area of that site. The reasons for this are several. First, typically, in densely-developed areas like much of the Mystic basin, little possibility for increased infiltration will arise unless the entire site - that is, the area in which much of the development already exists - is treated. Second, this approach will encourage developers to consider additional efficiencies, ones that would not be an option if they were not required to address the entire site. Finally, if the one-inch requirement were to apply only to the confines of a new development/redevelopment, total runoff from the entire site (and thus water pollution) would most likely increase.
3. To address the possibility (infrequently seen) that specific site conditions that render compliance with the 1" retention requirement infeasible - due, for example, to soil conditions, high groundwater levels or existing contamination - we endorse the availability of an alternative compliance path. In this way, development/redevelopment will not be obstructed unnecessarily, with inefficient and environmentally unsound stormwater management practices frozen in place. Section 2.3.6.a.ii(a) should clarify that this "safety valve" is available only if specific, articulable site conditions make full 1" retention infeasible. It also should make it clear that, where infeasibility is found, the alternative compliance path must apply to the entire site, not simply the area where new development/redevelopment is planned.
4. We also suggest that EPA consider allowing off-site mitigation and trading, but only where an on-site approach covering the entire site is infeasible. Off-site mitigation and trading can encourage cost-effective MS4-wide strategies for reducing pollutant loads,

Serving Twenty-Two Communities

*Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn*

and controlling volume and rates of runoff. However, developing effective mitigation provisions and trading systems is complicated – these require careful attention to design to ensure true equivalence in the level of pollution and runoff control provided, and to avoid the creation of loopholes. Thus, this approach should be considered only if on-site strategies are physically impossible or at least significantly more expensive than off-site mitigation.

G. Chloride (Road Salt)

The new requirements proposed for MS4s should apply to *all* MS4s – not just to MS4s that discharge to waters impaired for chloride (road salt). Although relatively few water bodies have been assessed for chloride, a growing body of evidence points to the conclusion that this is a significant problem in most, if not all, urbanized areas¹ – a problem that so far has been virtually ignored. Research from the northern United States as well as the analysis of water quality data from the Mystic River basin is summarized in Appendix 2 below. Given this data, we strongly recommend that measures to control chloride discharge be moved from Appendix H to the Good Housekeeping section of the new permit.

H. BMPs and LID

1. We support requirements for measurable goals for each BMP, including milestones and timeframes for implementation, defined qualitative or quantitative endpoints, and associated measure of assessment (section 1.10). We support the requirement for an annual evaluation of BMP implementation and recommend that it include an assessment of effectiveness as part of the annual SWMP. This evaluation is critical to encouraging an interactive approach to improving stormwater management. We also recommend that EPA provide detailed guidance on methods for evaluating the effectiveness of each type of BMP, and examples of corrective actions that might be taken where BMPs are not achieving their goals and objectives. The BMPs involved in stormwater management vary widely in their characteristics, from those that have a direct and observable impact on water quality (e.g., IDDE requirements) to those that are very important but less easily evaluated in terms of their ultimate effect on stormwater impacts (e.g., public outreach and education). A catalog of appropriate outcome measures for each BMP requirement and a checklist of BMP improvements that should be considered where BMPs are not achieving the desired objectives would be very helpful to permittees in the initial development of their SWMPs and in their annual evaluations.
2. In the annual evaluation of BMPs as part of the SWMP (section 1.10.2), we recommend that permittees be required to identify any BMPs that are not achieving the planned

¹ See Robinson, et al. 2003. Water quality trends in New England rivers during the 20th century, Water-Resources Investigations Report No. 03-4012 (USGS: National Water-Quality Assessment Program), 13.

outcomes. This may include a description of planned changes in BMPs as well as other actions to improve performance – including, if necessary, the evaluation and implementation of alternative BMPs. We also recommend that new regulations enable the public to petition EPA for a declaration that a BMP is ineffective and requires remedial action.

3. EPA’s BMP Performance Extrapolation Tool (PET), cited in section 2.3.6.a.ii(a), covers only some of the pollutants often found in stormwater: total phosphorus, total nitrogen, total suspended solids, and zinc. We recommend that EPA provide additional guidance on how it plans to select methods for verifying treatment performance with regard to other stormwater-related pollutants (e.g., bacteria, oil and grease, chloride, metals). The new permit also should allow for use of other resources able to demonstrate performance – but with the proviso that the permittee verify that any guidelines used which are not consistent with EPA’s BMP PET be shown to be more relevant to the specific site conditions than those incorporated in the BMP PET.
4. We recommend that EPA provide additional guidance on how BMPs should be chosen, as well as how they should be constructed (section 2.3.6.a.ii(d)). To ensure that BMPs are as effective as possible at removing or treating pollutants of concern, we recommend that BMPs be selected and constructed in accordance with the Massachusetts Stormwater Handbook.
5. We support the emphasis on low-impact development (LID) in the post-construction requirements (section 2.3.6.c). State-of-the-art LID has advanced significantly in recent years, the result of greater experience with these sustainable techniques. Costs have come down and there is a clearer understanding of performance potential, as well as the design, construction and maintenance practices needed to render these techniques effective. We believe that the language in the permit Fact Sheet (at p. 35) inappropriately suggests that maintenance of LID controls may be more expensive or difficult than that required for traditional stormwater controls. No such implication should be carried over into the final version of the new permit.
6. We agree that permittees should be required to assess local practices and regulations that affect impervious cover and the use of green roofs, infiltration BMPs, and water capture/reuse, as well as to assess opportunities to modify or retrofit their property and infrastructure to reduce impervious area and directly connected impervious area (section 2.3.6.d). These requirements will remove local barriers to more cost-effective approaches to stormwater management and will promote more proactive management of municipal stormwater.

I. Pollution Prevention

We support inclusion of pollution prevention in public education and outreach (Section 2.3.2). In addition, we support the requirements for pollution prevention for

Serving Twenty-Two Communities

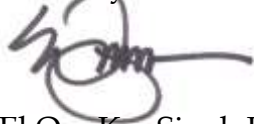
*Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn*

municipal facilities and operations, including development of a Stormwater Pollution Prevention Plan (SWPPP) (Section 2.3.7). Finally, as noted above, we recommend that some of the chloride reduction requirements described in Appendix H be made part of the Good Housekeeping requirements in section 2.3.7, rather than being limited to MS4s discharging to waters classified as impaired for chloride. These Good Housekeeping requirements should include tracking and reporting of types and amounts of salt used on all permittee-owned and maintained surfaces; developing a plan to minimize and reduce salt application; annually calibrating municipal and contractor equipment; training for staff and contractors on appropriate application rates and best practices; and preventing the exposure of salt storage piles to stormwater.

We appreciate the careful work EPA has done to improve on the 2003 permit and the 2010 proposal, work that is based on its experience with the 2003 permit and comments on the 2010 proposal. However, this process, as noted, has taken a very long time. We **strongly support prompt issuance of the final 2014 permit**, to end the long period of drift and uncertainty associated with delay in issuing this permit. We urge EPA to work quickly to respond to comments and complete a final permit at the earliest possible date.

Thank you for this opportunity to comment on this critically important set of regulatory revisions and permit. If you have any questions or require additional information please contact me at (781) 316-3438 or at EK@mysticriver.org.

Sincerely,



EkOngKar Singh Khalsa, Executive Director
Mystic River Watershed Association

cc: [*ADD]

Serving Twenty-Two Communities

*Arlington Belmont Burlington Cambridge Charlestown Chelsea East Boston Everett Lexington Malden Medford
Melrose Reading Revere Somerville Stoneham Wakefield Watertown Wilmington Winchester Winthrop Woburn*

20 Academy Street, Suite 306 • Arlington, MA • 02476-6401 • (781) 316-3438 • www.MysticRiver.org