

M a s s a c h u s e t t s
Rivers Alliance

14 Beacon Street, Suite 706
Boston, MA 02108
(857) 445-0208

March 31, 2010

Ms. Thelma Murphy, Stormwater Coordinator
Office of Ecosystem Protection, 5 Post Office Square – Suite 100 – Mail Code: OEP06-4
Boston, Massachusetts, 02109-3912
murphy.thelma@epa.gov

Subject: EPA's Draft MS4 General Permit for Small Communities in Massachusetts North Coastal Watersheds

Dear Ms. Murphy:

Thank you for this opportunity to comment on EPA's Draft MS4 General Permit for Small Communities in Massachusetts North Coastal Watersheds. The Massachusetts Rivers Alliance is a private non-profit 501C(3) organization dedicated to the protection and restoration of rivers in Massachusetts. We represent 26 conservation groups around the state, as well as individual members.

Stormwater is the single biggest source of pollution for Massachusetts rivers, and we believe that this permit (together with the permit the EPA has yet to issue for the remainder of the state), if properly enforced, will make a real, measurable difference for our waterways. The public health and safety benefits of better stormwater control – better water quality, reduced flooding, elimination of sewage overflows, and augmented summer streamflows – are in everyone's interest. The recent series of rainstorms in eastern and central Massachusetts, and the ensuing flooding and sewage problems, made that point abundantly clear. In many communities, better stormwater management could have lessened the impact, and the human and financial cost, of these storms. Most scientists expect the cycles of flooding and drought to become more pronounced with climate change, which means we need to tackle the difficult task of adapting Massachusetts communities, and their aging infrastructures, to meet this challenge. This permit addresses some of these issues. We strongly support most provisions of this permit and urge EPA to issue it within the year. It is our view, however, that the draft permit could be strengthened in several ways.

First, the permit should do more to help permittees reduce and eliminate stormwater pollution of critically important resources - drinking water, beaches, shellfish beds, and cold water streams. The best way to do this is to require permittees to restore and mimic, to the extent possible, the natural hydrologic cycle in their communities. This will require capturing and infiltrating stormwater from not only new, but *existing* development. This permit encourages this practice but only requires it for new development. To restore and protect water quality, prevent flooding, and maintain healthy flows and water levels in our rivers, streams, lakes, ponds and wetlands, this and future permits must do more to get rain water out of storm drains and into the ground.

Second, the permit should focus on fixing local pollution problems and preserving waters that are still clean. It is critical that residents see that local investments in environmental protection have real benefits. Improved water quality of reservoirs and swimming beaches, declines in the frequency and severity of flooding, and elimination of sewage overflows can demonstrate to residents the value of improved storm water management. In this way, permittees will generate more support for their stormwater work and become stewards, instead of polluters of the waters to which they discharge. Similarly, public outreach and education activities mandated by the permit need to establish give residents and businesses tangible reasons for changing their behavior and land management practices. For example, residents need to know that if they and their neighbors pick up after their dogs, that the town beach will be closed less frequently, if at all.

In addition to connecting stormwater management to the protection and restoration of local waters, EPA should require permittees to post all key MS4 documents on EPA Region 1's website. To its credit, EPA already posts the Notices of Intent and the Annual Reports. Having this information, written in laymen's terms and available for download from the web, will make it easier for citizens to learn about stormwater management in their towns and for towns to share information.

Finally, we wish to stress the critical importance of sampling of wet and dry weather stormwater discharges at every outfall, as well as and where two MS4 systems come together. It is necessary to detect and confirm the presence of an illegal connection to the storm sewer system. Sampling is also necessary to determine if one or more stormwater discharges are contributing pollutants to a river, pond or shellfish bed and if so what kind of pollutants. Moreover, sampling helps municipalities and other MS4 operators decide how to spend their money to achieve the greatest benefit. Because sampling, particularly wet weather sampling, can be expensive, we recommend that EPA ask permittees to review existing water quality data and pollution assessments for their receiving waters, before developing their Notices of Intent, Storm Water Management Plans, and outfall monitoring program. EPA and the MA DEP can also help permittees by identify what data is available. For your reference, we have attached two potentially useful data sources, the MA Department of Public

Health's most current Marine and Freshwater Beach Testing Annual Report (2008), and a 2006 Shellfish Sanitary Survey for the towns of Saugus and Revere prepared by the MA Division of Marine Fisheries.

Our specific comments, organized by permit part, are provided below.

Part 1.0 Introduction

1.7 Notice of Intent

We **strongly support** the following permit provisions:

- EPA's decision to provide public notice of the individual Notices of Intent (NOIs) and a 30-day public comment period. The NOI is the application for coverage and it is essential that citizens have an opportunity to review and comment on the condition and uses of individual receiving waters and the applicant's eligibility to discharge under the permit. Moreover, this supports implementation of the Public Education, Outreach and Participation Minimum Control Measures.

We **strongly recommend** the following changes to the permit:

- EPA and MA DEP should provide applicants with a single electronic template for the NOI.
- EPA (Region 1) should post the NOI public notices and NOI's on its website.
- EPA should require all applicants, particularly those discharging stormwater from MS4s to impaired waters without an approved TMDL, to establish in the NOI and document in the Storm Water management Program (SWMP) that they are eligible for coverage under this draft MS4 permit. Specifically, applicants need to document whether or not their stormwater discharges have reasonable potential to cause or contribute to violations of water quality standards. As stated in the draft permit and required by the Clean Water Act, this permit cannot authorize "stormwater discharges that cause or contribute to an instream exceedance of a water quality standard, including jeopardizing public and private drinking water sources." **(Part 1.3 (k))** EPA and other parties need to have this information when reviewing the NOI to determine if the MS4 operator should apply for an individual or alternative NPDES permit per **Part 1.8** of this permit.

1.10 Stormwater Management Program (SWMP)

We **strongly recommend** the following changes to the permit:

- EPA and MA DEP should provide permittees with a single electronic template for the written SWMP that can be easily updated.
- Permittees should be required to post the written SWMP and subsequent updates to the SWMP on EPA Region 1's website.

- The written SWMP should consist of a layman’s description of the program’s major components and measurable goals. This document, and any future updates, should be posted on the EPA Region 1’s website so the regulatory agencies, other MS4 permittees and the public have ready access to the SWMPs. Last fall (2009), an Alliance staff member made an appointment to review a town’s SWMP and was presented with a box full of manila file folders and binders by Department of Public Works staff. The town had no single SWMP document available that described program. The absence of a plain English, downloadable SWMP creates a significant obstacle to the Public Education, Outreach and Public Participation Minimum Control Measures set forth elsewhere in this permit.
- EPA should require permittees to identify all public drinking water sources (surface and ground), swimming beaches, shellfish beds and cold water fisheries that may be impacted by existing MS4 discharges in the SWMP and show them on the map of the separate storm sewers required by **Part 2.4.4.6** of the permit. To determine the likelihood that MS4 discharges impact these waters, the permittee, at a minimum, should review the following data and information available for these waters including:
 - 303(d)/305(b) information from the MA 2008 Integrated Waters Report, which is available by town on EPA Region 1’s website.
 - Water quality survey data collected or funded by MA DEP or EPA in the past five years.
 - Water quality data collected annually by the MA Division of Marine Fisheries and local shellfish constables for monitoring shellfish growing areas.
 - Sanitary Surveys prepared by the MA Division of Marine Fisheries, which identify and assess potential pollutant sources and usually include water quality sampling and analysis. (See attached 2006 Sanitary Survey for Revere and Saugus.)
 - Marine and freshwater beach testing data (bacteria) compiled annually by the MA Department of Health. (See attached 2008 Annual Beach Testing Report.)
 - Water supply water quality data report in the annual “Consumer Confidence Reports” as well as other water quality data reported separately to MA DEP by water suppliers.

Part 2.0 NON-NUMERIC EFFLUENT LIMITATIONS

Part 2.1-2.3 Water Quality Based Effluent Limitations

We consider these provisions to be the heart and soul of the permit because they mandate actual restoration and protection of water quality. Requiring MS4 discharges to implement the 6 minimum control measures, to meet water quality standards to the “maximum extent practicable” (MEP), is important, but it does not ensure that people will not get sick from swimming in polluted water, that shellfish can be safely harvested, that drinking water sources will not be contaminated with road salt, gasoline or motor oil, or that cold-water trout streams will be protected from repeated blasts of stormwater running off hot pavement.

For this reason, we **strongly support** following permit provisions:

- **Part 2.1.1 b.**, which requires the permittee to identify in the SWMP each water body that receives a discharge from the small MS4, the water quality classification of that water body, standards that apply to the water classification, and any identified impairments.
- **Part 2.1.1.c.**, which requires that “Except for discharges addressed by Part 2.2.1, if at any time the permittee becomes aware, or EPA or MassDEP determines, that a discharge causes or contributes to an exceedance of applicable water quality standards, the permittee shall within 60 days of becoming aware of the situation eliminate the conditions causing or contributing to the exceedance of water quality standards.”
- **Part 2.2.1**, which requires more stringent and specific pollution controls for MS4 discharges to waters with approved TMDLs. These water include the Charles River, Neponset River and Shawsheen River Watersheds.
- **Part 2.2.2. a.-c.**, which requires a permittee with discharges to impaired waters without an approved TMDL to address in its SWMP and annual reports how the MS4 discharges which contribute to pollutant loads and/or conditions identified as causing the impairment will be controlled so that they do not cause or contribute to impairment.
- **Part 2.3.1**, which defines an “increased discharge” as the result of the creation of one or more acres of new impervious surface.
- **Part 2.3.1.1 c.** (Increased Discharge to Impaired Waters without an approved TMDL), and **Part 2.3.1.2. c.** (Increased Discharges to Impaired Waters with an approved TMDL) which require permittees to identify additional BMPS needed to ensure that an increased discharge is not causing or contributing to a water quality standards violation and results in a net decrease in pollutant loadings (emphasis added)_to the impaired waters without a TMDL, and a net decrease beyond what is already required by the TMDL, through enhanced control of existing discharges or through offsets.
- **Part 2.3.2.1 – 2.3.22** (New Dischargers) which describes provisions and limitations that apply to new MS4 dischargers to impaired waters with and without an approved TMDL. However, EPA should provide further clarification the definition of the term “new discharger”.
- **Part 2.3.3 a.-f. Antidegradation**, except for b.i. and b.iii. This part describes antidegradation provisions that apply to new and increased discharges to unimpaired waters. In particular, the permit requires that the permittee notify EPA and MA DEP a minimum of 60 days prior to commencement of a new or increased discharge with a description of the discharge and documentation demonstrating that the discharge will satisfy the antidegradation provisions of the state water quality standards.
- **Part 2.3.3 b. iv** which allows dischargers to Tier 2 “High Quality” waters to demonstrate no significant lowering of water quality if stormwater controls are designed such that there is no

discharge of stormwater from the volume associated with the one inch storm event. EPA should encourage permittees to implement controls to control the discharge from the **95% percentile storm event**, which in Massachusetts is 1.5 inches. This is the performance standard adopted by the US Federal Government in response to Section 438 of the Energy Independence and Security Act.

We **strongly recommend** the following changes to the permit:

- **Part 2.1.1** EPA should strike the language from **Part 2.1.1 Requirements to Meet Water Quality Standards**, which states “In the absence of information suggesting otherwise, discharges will be presumed to meet the applicable water quality standards if the permittee fully satisfies the provision of this permit.” This presumption violates the Clean Water Act. It also undermines and is contrary to the right and ability of citizens under the Section 505 of the Clean Water Act, 33 U.S.C. § 1605, to enforce the permit.
- **Part 2.2.1(a)** EPA should change the language in **Part 2.2.1(a)** to allow for the possibility that additional TMDLs may be finalized during the five-year term of the permit. Currently the permit requires compliance only with those TMDLs approved by EPA as of the effective date of the permit. This change is also important to ensure that EPA considers those TMDLs when deciding if specific discharges can continue as authorized under the permit, and whether SWMPs, BMPs and other conditions must be modified for discharges into waters that are the subject of those TMDLs.
- **Part 2.1.1 b. and c.** EPA should require the permittee to review existing water quality data available and assessments for each water body when complying with **Part 2.1.1 b. and c.** Just listing the cause of impairment from the 303(d) is insufficient because many waters are unassessed. As previously recommended, the permittee should review existing site-specific water quality data and pollutant source information for any impaired waters, including water quality survey and drinking water data from MA DEP, beach testing/water quality data (bacteria), for fresh water and marine beaches compiled annually by the MA Department of Health Massachusetts Department of Public Health Bureau of Environmental Health Sanitary Surveys prepared by the MA Division of Marine Fisheries (DMF) for shellfish growing areas (these surveys require identification of potential pollutant sources and often extensive testing for bacteria, metals and other pollutants – the results are reported in the survey), Water Supply Consumer Confidence Reports (look for potential road salt contamination, elevated chlorides, sodium, turbidity and total dissolved solids).
- **Part 2.1.1.c.** EPA should consider allow the permittee one year, instead of 60 days, to eliminate conditions causing or contributing to the exceedance of water quality standards. However, if the permittee cannot or will not eliminate the conditions within one year, EPA should issue a compliance order with an enforceable schedule. Documenting in the SWMP “measures and an anticipated timeframe to eliminate conditions causing or contributing to exceedance of water quality standards” will effectively hide and bury water quality violations,

making it unlikely that the pollutant sources will be removed. These provisions also create a strong incentive for permittees to take more than 60 days to eliminate pollutant sources.

- **Part 2.2.1 d(i)** The deadlines for development and implementation of the Phosphorus Control Plans in the Charles River Watershed should be shortened.
- **Part 2.3.3** EPA should amend this provision to require that permittees demonstrate, prior to commencement of a new or increased discharge, that a new or increased discharge will not only satisfy antidegradation requirements and an associated alternatives analysis, but also that it will not cause or contribute to the violation of other water quality standards.
- **Part 2.3.3** EPA should amend this provision to require that MS4 operators post notifications for new and increased discharges to impaired waters on the EPA website. The permit should require regulated entities to provide specific notice – of their submission to EPA of new-or-increased-discharge information – to anyone who has requested such notice, and to any anyone who has previously commented on a regulated entity’s NOI, SWMP or other MS4 submissions.
- **Part 2.3.3 b(i)** EPA should review MA DEP’s current Antidegradation Policy, in particular its definition of insignificance, which allows increased pollutant loads to Tier 2 waters as long as the increased load is less than 10% of the remaining assimilative capacity for that pollutant. The policy was public noticed and re-issued in October of 2009 without review or comment by EPA or the public. The problem is that the policy does not include a cumulative cap on allowable increases and no tracking system to know when the assimilative capacity has been used up.

Part 2.4 - Six Minimum Control Measures

We **strongly support** the following permit provisions:

- **Part 2.4.2 Public Education and Outreach**, in particular **Part 2.4.2.1**, which specifies that, “At a minimum, the program shall provide information concerning the impact of stormwater discharges on water bodies within the community, especially those waters that are impaired or identified as priority waters.” This requirement is essential to convincing the public to spend money to address stormwater pollution. People need to see that investment in stormwater control will improve their quality of life in real, concrete ways. Most education efforts to date have been divorced from local water quality problems. For example, people need to know that if they pick up after their dogs, the town sweeps the streets twice instead of once a year, and replaces several stormwater outfalls with dry wells, that water at the town bathing beach will be cleaner.

Part 2.4.3 Public Involvement and Participation

We **strongly recommend** the following permit changes:

- As recommended previously, the permit should require that permittees post the SWMP, including a stormwater system map, and all SWMP updates, on EPA Region 1's website, along with the NOI and Annual Reports.

Section 2.4.4 Illicit Discharge Detection and Elimination (IDDE) Program

We **strongly support** the following permit provisions:

- **Parts 2.4.4.2 and 2.4.4.5** which requires detection and removal of sanitary sewer overflows (SSO's) and all illicit discharges and connections to MS4s.
- **Part 2.4.4.7** which requires development of an Outfall Inventory that records the actual location and condition of the outfalls, as well as field labeling of each outfall with a unique identifier.
- **Part 2.4.4.8** which provides detailed guidance on how to establish and implement an effective Illicit Discharge Detection and Elimination Program.

We **strongly recommend** the following permit changes:

- **Part 2.4.4.2** should provide greater detail and clarification on enforcement options when a permittee finds an illicit discharge but the owner won't remove it.
- **Part 2.4.4.6 (b)** should require that the permittee produce a GIS map. A GIS map should serve as the foundation for an organized SWMP that will be a dynamic document during the next five years.
- **Part 2.4.4.6 d (i) and (ii)**, which only apply to permittees under an approved TMDL, should be extended to all municipalities, including those without an approved TMDL. The mapping and planning work specified in these sections is essential for all MS4 operators.
- **Part 2.4.4.7 (a)** The language in this part should be altered to read that the permittee shall have completed an outfall inventory for 50% of outfalls by end of year 2, and 100% by year 3. The delay in completing an inventory will weaken efforts at prioritization. An outfall inventory does not depend upon special circumstances such as wet weather and does not place a large burden on the permittee.

- **Part 2.4.4.7 (c)** We ask that EPA consider recommendations by others that this permit provision require only measurements of **bacteria, surfactants, ammonia, conductivity and temperature**. Others argued, and we agree, that the information contained in these parameters is the most useful for identifying problems. Outfall sampling is critical, however, and we strongly support the requirement to collect flow samples, if flow is observed at the outfall during the outfall inventory.

Section 2.4.5 Construction Site Stormwater Runoff Control

Written procedures for site inspection and identification of responsible person(s) are welcome and necessary additions to the 2003 MA GP requirements. However, it is essential that the municipality have the legal authority to impose sanctions. Lacking such authority, the permittee should be given no more than two years to obtain it.

Section 2.4.6 Stormwater Management in New Development and Redevelopment (Post Construction Stormwater Management)

We **strongly support** the following permit provisions:

- **Part 2.4.6.3**, which requires municipal bylaws to mandate compliance with MA Stormwater Management Standards 3-7, regardless of the proximity of the development to wetlands. However, we strongly recommend that all new construction and redevelopment projects creating one or more acres of impervious surface that capture, treat and recharge the 90th percentile or 1.0 inch storm event.
- **Part 2.4.6.9**, which requires efforts to minimize “Directly Connected Impervious Area” (DCIA) tributary to MS4s, especially where disconnection of impervious areas will improve groundwater recharge and treatment of pollutants. However, although retrofits must be “prioritized” by municipalities, the language of the proposed General Permit does not appear to require that any retrofits actually occur. Some minimal requirements are needed, whether they relate to the number of retrofits; reductions in volumes, intensity or pollutant loadings resulting from retrofits; or level of effort.

We **strongly recommend** the following permit changes:

- **Part 2.4.6.3** should be amended to mandate compliance with MA Stormwater Standards 1 and 2. While Standard 1 pertains to direct discharges to wetlands, upland discharges often eventually create channels that lead directly to wetlands and waterways. Standard 2 requires that post-development peak discharge rates not exceed pre-development. This requirement is equally important for uplands as it is for wetlands.

Part 2.4.7 Good House Keeping and Pollution Prevention (P2) for Municipally Owned Facilities and Operations

We are pleased that the permit sets strong standards pertaining to Stormwater Pollution Prevention Plans (SWPP) for maintenance garages, public works facilities, transfer stations and other waste handling facilities. This is one of the few sections in the proposed permit that requires municipalities and other permittees to specifically address pollutants causing nonattainment of water quality standards.

Section 3.0: Outfall Monitoring

Outfall monitoring is necessary to identify and prioritize outfalls that discharge pollutants and need repairs or controls. Without this information, municipalities and other permittees will waste money where it is not needed, and may miss real problems. Wet weather monitoring can be expensive; EPA should encourage MS4 owners to work with watershed groups to obtain and use this data. Many watershed group in Massachusetts have long-standing, professionally managed water quality monitoring programs. As noted previously, MA DEP and MA DMF also collect water quality data for other purposes, such as shellfish bed management, and permittees should make use of these data. If possible, EPA should work with these state agencies to identify what water quality data is available for the 84 communities subject to this draft permit.

We **strongly support** the following permit provisions:

- **Part 3.1.1**, which provides for the permittee to start its monitoring program no later than the beginning of the second year of the permit unless otherwise indicated in the permit.
- **Part 3.1.2**, which requires at least one dry weather and one wet weather monitoring event for each outfall within five years of the effective date of this permit. We strongly feel that this monitoring requirement is within the capacity of permittees to complete.
- **Part 3.1.3**, which requires screening and monitoring at locations where stormwater from one MS4 is transferred to another MS4. These areas are often among the least recognized problems and slowest to be repaired.

We **strongly recommend** the following permit changes:

- **Part 3.0** Outfall Monitoring Program, EPA should require owners of MS4s to place their data into the WQX/STORET System. The permit should require permittees to place monitoring data into EPA's WQX database. This latter tool will not be burdensome for regulated entities, and will create an accessible repository of data that will aid permittees, EPA, and interested stakeholders alike.
- **Part 3.1.4.5** This permit provision allows an MS4 owner (permittee) to perform in-stream monitoring representative of one or more discharges. This language should be struck from the permit.

- **Part 3.2.2** EPA should consider omitting chlorine, turbidity, potassium and pH as parameters requiring measurement.
- **Part 3.3.2** EPA should modify this provision, which requires the permittee to document the number of outfall screened and any monitoring results each year in the SWMP and the annual report, to ensure proper reporting of this information. The annual report should include a record of monitoring, identification of pipes by unique identifiers, a GPS coordinate down to five digits for each outfall, and a map that can be used by an outside agency or citizen group. And again, this permit should require that the SWMP and Annual Report be made available on EPA Region 1's website within a certain time period.

Part 4.0 Additional State Requirements

Part 4.1 Public Drinking Water Supply Requirements

Part 4.1.1.- 4.1.3. We strongly support the state's recommendations for protecting public drinking water sources from the impacts of existing MS4 discharges. Unfortunately, these actions are not required. Given the importance of public water supplies, we strongly urge EPA and the state to amend the permit to require that all existing MS4 discharges to public water supplies meet MA Stormwater Standard #6 within the life of the permit. Standard #6 mandates that stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical areas need to implement specific source control and pollution prevention measures and structural BMPs determined by MassDEP.

Part 4.2 We strongly support this provision of the draft permit, which encourages recharge of ground water where feasible in the implementation of the stormwater control measures required by the permit. We strongly recommend, however, that EPA and the state amend the permit to include a recharge target or performance standard, such as the 1 inch storm (90th percentile storm) or 1.5 inch storm (95th percentile storm).

Part 5.0 Program Evaluation, Record Keeping, and Reporting

The reporting and record-keeping requirements are potentially significant for permittees. We urge EPA to work with MassDEP and permittees to develop electronic forms and templates that will streamline this task and make it easier to post reports and data on the web.

Part 5.2.3. We strongly support making records related to this permit available to the public. However, as stated previously, we strongly recommend that the EPA and permittees post key permit documents and information – the Notice of Intent, Annual Reports, the written Storm Water Management Program, outfall monitoring data, and notices of new or increased MS4 discharges to

receiving waters, on EPA Region 1's website so that it is available for download by the public. EPA already posts the NOIs and Annual Reports submitted under the 2003 Small MS4 permit.

Part 5.3 Reporting

We recommend extending the deadline for Annual Reports to Oct 1st to give permittees more time to properly prepare them.

Part 6.0 Requirements for State and Federal Non-Traditional MS4s

We strongly support the requirement in **Part 6.4** of the draft permit for federal agencies to comply with Section 438 of the Energy Independence and Security Act and adoption of the performance standard requiring recharge of the 95% percentile storm event, which equals the 1.5 inch storm in Massachusetts. We further recommend that MA state agencies such as MA DOT be held to the same performance standard as the federal government. See EPA's *Technical Guidance for Controlling Stormwater Runoff Requirements for Federal Projects Under Section 438 of the Energy Independence and Security Act, December 2009*.

Part 7.0 Requirements for State Transportation Agencies (MA DOT)

Given the potential and documented impact of stormwater discharges from state highways in Massachusetts, and the estimated 17,000 stormwater outfalls that drain them, we strongly recommend that EPA issue MA DOT an individual NDPES permit.

On behalf of the Massachusetts Rivers Alliance, thank you for considering our comments and suggestions. Please contact us at (857) 445-0208 if you have any questions about these comments.

Sincerely,



Julia Blatt
Executive Director

Attachments:

