

TOWN OF DANVERS
Department of Public Works



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ENGINEERING DIVISION

March 30, 2010

EPA - Region 1
Attn: Thelma Murphy
Office of Ecosystem Protection
5 Post Office Square, Suite 100
Mail Code: OEP06-4
Boston, MA 02109-3912

Subject: Comments on the Draft Massachusetts North Coastal
Small MS4 General Permit

Dear Ms. Murphy:

The Town of Danvers is in receipt of the Draft Massachusetts North Coastal Small MS4 General Permit for stormwater management, applicable to 84 communities in the Commonwealth. This letter provides our comments for consideration when developing the final permit.

We recognize the importance of stormwater management to the environmental health of Massachusetts waterways and the maintenance of designated uses. With the Clean Water Act long focusing on point sources alone, we applaud the efforts of the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) over the last decade to incorporate non-point source pollutant reduction into the CWA regulatory program.

The regulatory agencies and the regulated communities share a common mission - to ensure the health and quality of our cities and towns and their natural resources. In order to accomplish these goals, environmental programs must be balanced with other needs and responsibilities of each community and implemented in a fashion that is both feasible and financially responsible. In this context, we offer the following comments on the Draft Permit:

Data Needs for Compliance by MS4 Communities

The Draft Permit requires an enormous quantity of data to be gathered and mapped in a very short time frame in order to meet all of the permit requirements. The following is a list of data requirements included in the permit.

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- The locations of all stormwater infrastructure including outfalls, pipes, catch basins, interconnections to other small MS4s, catchment delineations, treatment structures and other BMPs;
- Data regarding the water quality of receiving waters, including water quality classifications and standards, identified impairments, total maximum daily loads (TMDLs), and waste load allocations (WLAs);
- Additional detailed receiving water quality information to identify areas with a high illicit discharge potential, such as fecal coliform, ammonia-nitrogen, total phosphorus, and surfactant data, and “any other available sources of dry weather water quality data including state agencies or watershed associations”;
- Parcel-by-parcel land use information, including specific uses (car dealers, car washes, gas stations, garden centers, industrial manufacturing areas, colleges, and residential areas), building ages, septic system ages, results of Title 5 inspections, locations of swimming pools, and ages of industries,
- Sanitary sewer system information, including sewer ages, the location, date, volume, and mitigation of sanitary sewer overflows, and the locations of old combined sewer overflows;
- Planned capital projects on roadways or other infrastructure that could impact stormwater;
- Locations of drinking water supplies, shellfish beds, fishing areas and other sensitive environment resources; and
- Additional optional information such as topography and orthophotography.

The development of the data layers for the Geographic Information System (GIS) may require years of work and hundreds of thousands of dollars in consultant fees on an annual basis to gather and input this data. Much of this data must be “field collected” in order to be entered into a GIS system. The timeline for completion of much of the mapping in the Draft Permit and the data analyses that are contingent upon its completion is one to two years from the effective date. This effort would cost the Town of Danvers several hundred thousand dollars annually. Data collection may require a new flyover of the town and extensive GPS work. The allocation of funds followed by the procurement of the required services could consume the majority of the time allowed for these mapping and data analysis tasks. This could be exacerbated depending on the timing of the permit issuance within a community’s fiscal year.

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Timeline for Completion of Permit Milestones

Among the many requirements in the Draft Permit, the following milestones are included at the times indicated for communities that were subject to the 2003 permit:

120 days following EPA authorization:

- Submit the Stormwater Management Plan, including initial mapping, measurable goals for each BMP, milestones, timeframes, and measures of assessment.
- Estimated Cost \$100,000.00

Within 6 months of the effective date:

- Inventory all permittee-owned facilities within the categories listed;
- Develop an inventory of all floor drains within permittee-owned buildings;
- Develop a program to rehabilitate infrastructure at municipal facilities as needed;
- Begin sweeping all streets twice per year; and
- Begin quarterly inspections of all municipal facilities.
- Estimated Cost \$125,000.00 (annually)

Within 1 year of the effective date:

- Submit a Stormwater Pollution Prevention Plan for all municipal facilities;
- Prepare written operations and maintenance procedures for municipal activities;
- Develop a procedure for site inspections and enforcement of construction site measures;
- Develop a protocol for the illicit discharge detection program and prioritize areas based on the data listed above;
- Inspect all stormwater structures on municipal properties annually;
- Begin distribution of public education materials to four identified audiences; and
- Identify areas of inappropriate pet waste management.
- Estimated Cost \$250,000.00

Within two years of the effective date:

- Submit the storm sewer infrastructure map showing all stormwater utilities;
- Submit an inventory and priority ranking of MS4-owned property and infrastructure;
- Implement targeted management efforts for pet waste at identified locations;
- Submit a report assessing the current street design and parking lot guidelines;

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- Develop an ordinance for development/redevelopment post-construction stormwater standards;
- Distribute public educational materials about feeding waterfowl in targeted areas; and
- Begin monitoring and sampling 25% of outfalls per year in both dry and wet weather.
- Estimated Cost \$200,000.00

Within 3 years of the effective date:

- Develop a report assessing existing local regulations to determine the feasibility of allowing or encouraging green infrastructure.
- Estimated Cost \$150,000.00 (including \$100,000.00 for sampling)

Within 4 years of the effective date:

- Complete investigations of 50% of the storm sewer catchments.
- Sub catchment mapping & Investigation Estimated Cost \$200,000.00

By the end of the permit cycle:

- Monitor and sample all outfalls in both dry and wet weather;
- Perform 48-hour damming tests on all key junction manholes; and
- Distribute a minimum of eight public educational messages.
- Estimated Cost \$250,000.00 (including \$100,000.00 for sampling and \$150,000.00 for damming)

Many of the individual requirements, on their own, may be achievable. However, requiring so many varied tasks of each community during a five-year permit cycle is unrealistic and is setting communities up for failure to comply. For this permit cycle, the program should be pared down to a list of achievable goals.

The Town of Danvers completed a facilities plan to address this maintenance of its three major streets (brooks) in Danvers including replacing of aging culverts throughout these three basins. The total Capital Improvement Program of this work is in excess of \$11,000,000.00 (2006 cost estimates) which is above and beyond any Phase II permit requirements.

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Financial Burden to Danvers

The Town of Danvers has over 730 outfalls, the sampling and laboratory testing alone for 25% of the outfalls are in excess of \$100,000 annually, depending on the parameters being tested. This is just one small component of the Draft Permit. Combined with the labor and consulting fees required to develop and distribute public education materials, to conduct site investigations, to develop the mapping described above, to inventory and inspect municipal facilities, to inspect and enforce construction activities, to review site plans for proposed new development or redevelopment projects, and to develop and implement reports, policies and ordinances, the financial burden of the Draft Permit is excessive. In Section 1.10 c, the permittee is "encouraged to maintain an adequate funding source for the implementation of this program. Adequate funding means that a consistent source of revenue exists for the program." With only 120 days from the permit's effective date to develop the Stormwater Management Plan and commit to particular measures for implementation, there is not adequate time for funding to be secured. Furthermore, a "consistent source of revenue" implies a funding mechanism such as a stormwater utility assessing user fees. This type of program could require years to develop and implement, normally requiring multiple levels of review and approval from town boards and committees, town counsel, town meetings or general elections, and sometimes the state legislature.

Summarized costs to Danvers include:

Year 1 costs	\$500,000.00
Year 2 costs	\$200,000.00
Year 3 costs	\$150,000.00
Year 4 costs	\$200,000.00
Year 5 costs	\$250,000.00
Current O&M (annual)	\$300,000.00
CIP Costs	\$11,000,000.00
<hr/> Total PHII Costs	<hr/> \$12,600,000.00

Assistance from the Regulatory Agencies

Section 2.2.1(d)(viii) states that, "The permittee shall identify incentives or regulatory assistance or guidance that the permittee seeks from EPA or MassDEP to implement effectively the PCP." Beyond just the PCP, there are several areas in which the regulatory

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agencies could provide information that would greatly reduce the financial burden and time constraints imposed by the Draft Permit. These include the following, each of which is described in more detail below: 1) public education materials, 2) ordinances and policies, 3) GIS data, 4) BMP removal efficiencies and related data, and 5) coordination with other review agencies. The provision of impervious area and directly connected impervious area for each community in Section 2.4.6.9 is a good example of the type of information that should be provided to assist in compliance. As much as possible, the regulatory agencies should provide guidance documents and templates to meet the individual requirements of the permit.

Public Education Materials

For the required public education materials, having each of 84 communities create their own language and graphics for brochures, websites, signs, etc. is an inefficient use of resources. Enough of the information on non-structural controls implementable by the public is generic and can be provided in a series of templates to communities. A few versions of this information could be developed depending on the size and demographics of each community or depending on the watershed. Similarly, for business and industrial user education, much of the information is generic and applies to all facilities. Specific recommendations regarding pet waste management, the use of alternative fertilizers, appropriate fertilizer application, and yard waste recycling, to name a few, are common to most locations. Templates could include areas where communities can input information specific to their locations. This would greatly reduce duplicate efforts and costs.

Ordinances and Policies

Similar to public education materials, the regulatory agencies should provide suggested language for ordinances and policies. The Draft Permit requires the development of a number of specific policies and procedures, including those relating to illicit discharges, construction oversight, new development reviews, and management of municipal facilities. Again, much of this information is generic and could be provided to communities as a range of templates, where a community could select the provisions applicable to their needs from a list of potential wording. If five templates could be made for each ordinance, rather than 84, this, again, would greatly reduce duplicate efforts and costs. Furthermore, many communities are likely to have counsel review new bylaw language prior to its adoption. If the regulatory agencies provide only that language that has been reviewed from a legal perspective and is deemed appropriate and enforceable, this would further reduce the costs to communities.

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GIS Data

Many of the data needs listed above are a part of state-wide or regional initiatives. For instance, water quality classifications and standards, identified impairments, data from watershed organizations, waste load allocations, and waterways with endangered species habitat are not specific to individual communities, but instead are applicable to reaches of receiving waters that cross town boundaries. Rather than each community seeking out this information individually, the Draft Permit should contain links to downloadable GIS data for all regional or state-wide data required to be used to comply with the permit requirements.

Coordination with Other Review Agencies

Reviews for the presence of and impacts to endangered species, specific habitats, historical resources, and archeologically significant areas are cumbersome for each community to coordinate individually, both for the communities and for the review agencies. The permitting authorities should coordinate the reviews by these agencies with the comment periods and with particular future milestones, and all comments should be funneled through the permitting agencies to the applicants via formal comments. The draft permit describes activities as minor as constructing a ditch or installing a new catch basin as requiring the community to contact the review agencies due to the disturbance of land, especially in relation to archeological resources. A more streamlined process is required for obtaining input from these agencies on minor activities such as this.

Other Comments

The following is a list of other miscellaneous comments that apply to topics other than those discussed above:

- The monitoring of 25% of outfalls each year in both wet and dry weather conditions is cumbersome, costly, and unreasonable. This should be lowered to a more achievable level, such as 10% per year, starting with known problem areas.
- For receiving waters both with and without approved TMDLs (Sections 2.2.2 and 2.3.1), requiring the installation of BMPs in municipal systems to meet all impaired water quality standards is an enormous and expensive undertaking.
- The permit states that the regulations only apply to the “urbanized” areas of each community – those with at least 500 people per square mile – and that “irrigation

water” is excluded as a non-stormwater discharge. This may result in an exclusion of agricultural areas, which tend to be major contributors to stormwater pollution, especially with regards to nutrients. The regulatory agencies would be remiss to require such stringent requirements to meet WLAs from urbanized areas but not include agricultural inputs.

- If a discharge causing an exceedance of a water quality standard is discovered, the community is instructed to fix it within 60 days or document in the SWMP an estimated timeframe to correct the problem. This implies that the SWMP is an evolving document with constant updates to the regulators. If this is the case, it should be clarified in the Draft Permit.
- In Section 2.3.3 – Antidegradation, item (b) requires that for “discharges to tier II waters as defined by 314 CMR 4.04 the permittee shall demonstrate to the satisfaction of MassDEP that the discharge will cause no significant lowering of water quality by documenting one or more of the following: ... (iii) The discharge does not cause a significant lowering of water quality because the effluent will be of a quality equal to or better than the existing water quality of the receiving water...” This should be clarified, as it implies that water quality standards do not need to be met in water bodies where they are not presently being met. This rationale could be used by all permittees discharging to tier II waters to maintain the status quo.
- Several of the data needs may require data from adjacent communities or from entities other than the MS4 communities being regulated. For instance, if the sanitary sewers are owned and operated by a different entity, such as a sewer district, the MS4 community may be relying on the adequacy and quality of their data to meet some of the permit requirements. This applies to information on locations, ages, sanitary sewer overflows (SSOs), etc. Similarly, where this situation exists, requiring correction of SSOs may be more challenging if they are not within the community’s jurisdiction.
- The permit mentions that areas with sanitary sewers over 50 years old should be considered as having a high illicit discharge potential. Note that in some communities, the majority of sewers are over 50 years old. Therefore, a further division of priority areas would be required.
- Section 5.1.5 states that EPA or MassDEP may require the permittee to add, modify, repair, replace or change BMPs to other measures” at any time. This is open-ended

an onerous. More specific allowances should be made for how long a community will be given to make changes if they are requested or required by the regulatory agencies.

- Section 2.4.4.2 accurately recognizes that 6 months is not enough time to pursue and resolve a legal dispute with a discharger unwilling to comply; this could take years, and no time limit should be placed on this where it is beyond the control of the community.
- The requirements for construction site stormwater runoff control represent an improvement over the present General Construction Permit. Enforcement is often lacking with the present program, and having communities more involved with construction within their limits should help to mitigate the impacts of construction-related erosion and sedimentation. There could be a substantial reduction in pollutants from this alone, and the requirements appear to be reasonable and achievable.
- Similarly, post-construction stormwater management from new development and redevelopment are also “low-hanging fruit.” The application of the existing DEP stormwater management standards to upland areas outside of the MA Wetlands Protection Act jurisdiction is appropriate. These are standards that have been implemented in and around wetland resource areas for a number of years and are tested, implementable, and enforceable.
- The requirements for good housekeeping and pollution prevention from municipal facilities all appear to be reasonable and achievable, with the exception of the following two provisions: 1) Investigating municipal buildings to identify all floor drains may be a challenging task, especially in a 6-month time frame, if large facilities such as school buildings and public meeting spaces are included; 2) The requirement to clean all catch basins when they are 50% full could require frequent cleaning of all catch basins in areas where deep sump basins have not yet been installed and may be excessive compared to the associated benefit. Furthermore, the inspection and cleaning of stormwater structures should be modified to be at the same frequency, allowing both to be performed at once.

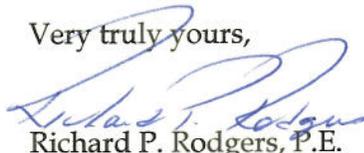
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- The permit leaves communities susceptible to third party lawsuits from environmental groups by requiring compliance with water quality standards that may not be achievable without extensive end of pipe treatment.
- We agree with the requirements for stormwater inputs into drinking water supply areas (Section 4.1) and the encouragement of groundwater recharge where feasible (Section 4.2).
- Where some of the permit requirements extend for a period of ten years, it seems that record keeping should be required for longer than a five year period.

In conclusion, while the Town of Danvers agrees with the regulation of stormwater inputs to maintain high water quality, the Draft Permit as presented includes several requirements which are not achievable by this and many communities and do not take into account time and budget constraints that affect cities and towns. The permit should be scaled back, especially in the areas of mapping, outfall monitoring and sampling, and phosphorus and bacteria loading requirements, to include achievable, cost-effective goals during the course of the five-year permitting period. If communities are presented with a permit they can meet, they are more likely to successfully invest the funds and labor into implementation.

Thank you for your consideration of these comments. Should you have any questions, please contact Richard P. Rodgers, P.E., Town Engineer at 978-777-2628.

Very truly yours,



Richard P. Rodgers, P.E.
Town Engineer

Cc: Wayne P. Marquis, Town Manager
David B. Lane, Director of Public Works
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