



TOWN OF WALPOLE
COMMONWEALTH OF MASSACHUSETTS

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Environmental Protection Agency - Region I
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Boston, Massachusetts 02109-3912

Subject: Comments on the Draft Massachusetts North Coastal
Small MS4 General Permit - Town of Walpole

Dear Ms. Murphy:

The Town of Walpole, Massachusetts ("Town") is in receipt of the Draft Massachusetts North Coastal Small MS4 General Permit ("Draft 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 (CWA) long focusing on point sources alone, we understand the need for the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) 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.

The Draft General Permit significantly increases the compliance requirements for the Town in comparison to the 2003 Permit. The increased effort in monitoring; mapping; implementation of best management practices; removal of phosphorous in the portion of Walpole that is within the Charles River watershed; and significant additional catch basin cleaning and street sweeping will require significant expense to the Town without insuring significant water quality improvement in both the Charles and Neponset Rivers. For this reason, the Town is providing the following comments on the Draft Permit for your consideration.

Detailed Comments

The following is a summary of the detailed comments on the Draft Permit and its specific impacts on the Town of Walpole.

Financial Burden to Walpole

For Walpole, with over 400 mapped stormwater outfalls, the sampling and laboratory testing alone for 25% of the outfalls will cost upwards of \$50,000 annually, depending on the parameters being tested. Laboratory costs are 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.

The scheduling of the requirements in the Draft Permit cannot be met because of the timing of funding being appropriated through the Town Meeting process. For example, in Section 1.10c, 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 given the constraints of Walpole's Town Meeting process for appropriating the required funding.

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 and Town Meeting and, depending on the structure of the proposed utility, special legislation.

Data Gathering

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 Draft General Permit requirements. For Walpole, the list of data is proposed to include the following specific requirements:

- 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 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.

In addition, a portion of Walpole is within the Charles River watershed and is required to provide additional information including land uses, soil types, impervious cover, public and private parking lots, public and private yard waste storage or composting facilities, parks, recreational fields, golf courses, fertilized sports fields, street alignments with extensive deciduous tree canopies, areas subject to erosion, and land suitable for structural controls. The Town will also be required to map additional information pertaining to the sanitary sewer system such as sanitary sewer infrastructure locations, materials, and flow directions, rim and invert elevations, monitoring data, cleaning and repair activities, sewersheds, areas with inadequate levels of service, investigation (CCTV) and rehabilitation work planned and completed, flow isolation and dye testing areas, and locations of lift stations, siphons, known or suspected underdrains, and major crossings with drainage utilities.

Walpole has made a significant investment in developing and maintaining a robust Geographic Information System (GIS). However, not all of the information required in the Draft General Permit is currently in the Walpole GIS databases. Therefore, it will require the development of significant additional data layers would require additional schedule and thousands of dollars in consultant fees.

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. Because of the required process for obtaining funding for this additional work, these are not achievable milestones for Walpole. Data collection will require extensive GPS work. The allocation of funds will consume the majority of the time allowed for these mapping and data analysis tasks. This could be exacerbated depending on the timing of the final permit issuance within a community's fiscal year and the limited timing of Town Meeting. Even though Walpole already has a significant portion of the required information, the data compilation and analyses could consume the entire time allowable for these tasks.

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 like Walpole 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.

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.

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;
- Identify areas of inappropriate pet waste management; and
- For the portion of Walpole within the Charles River watershed, implement a catch basin inventory program and a street-sweeping optimization program, and optimize the use of fertilizers and leaf collection from impervious surfaces by municipal employees.

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;
- Develop an ordinance for development/redevelopment post-construction stormwater standards;
- Distribute public educational materials about feeding waterfowl in targeted areas;
- Begin monitoring and sampling 25% of outfalls per year in both dry and wet weather; and
- Because a portion of the town is within the Charles River watershed, submit information representing the progress of the Phosphorus Control Plan development.

Within 3 years of the effective date:

- Develop a report assessing existing local regulations to determine the feasibility of allowing or encouraging green infrastructure.

Within 4 years of the effective date:

- Complete investigations of 50% of the storm sewer catchments; and
- For Charles River watershed communities, implement the Phosphorus Control Plan, with compliance achieved by year 10.

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.

Many of the individual requirements, on their own, would 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.

Neponset River Bacteria Reduction Requirements

The majority of Walpole is within the watershed of the Neponset River. In an August 2004 report entitled, "Evaluation of Stormwater Management Benefits to the Lower Charles River," prepared by Metcalf & Eddy for the EPA, 2000 cfu/100 mL is described as "the extreme of dry weather and wet weather stormwater quality that could occur if aggressive illicit connection removal is implemented, and all possible BMPs are applied to their fullest extent." The bacteria removal requirements in Appendix G of the draft permit are 200 cfu/100 mL (geometric mean) across all Neponset River

communities. Achieving these levels in stormwater discharges from developed areas such as Walpole and the other communities along the Neponset River is not realistic.

Charles River Watershed Phosphorus Reduction Requirements

Based on the Draft Permit, the portion of Walpole within the Charles River watershed is required to meet unrealistic phosphorus reduction goals over a ten-year period. Specifically, the permit states that Charles River watershed communities “shall develop a Phosphorus Control Plan (PCP) that describes measures necessary to reduce the amount of phosphorus in discharges from its MS4 to the Charles River and its tributaries to achieve consistency with the WLA for the phosphorous (sic) loadings published in the *Final TMDL for Nutrients in the Lower Charles River Basin*” and “must reduce phosphorus loading to support achievement of the WLA included in the approved TMDLs for nutrients.” Compliance with this condition will be very difficult and expensive, if not impossible, to achieve.

Presently, best management practices (BMPs) for stormwater phosphorus reduction are not well-developed. Furthermore, consistent guidance is needed in the permit regarding how to calculate the reduction potential associated with particular BMPs. Example BMPs are listed (bioretention, infiltration, disconnection of impervious areas, public education, etc.), but without presenting a consistent approach to calculating their reduction potentials, each community is likely to assess their achieved removal differently. In order to have an equitable program across the communities within the watershed, the permit documents must be more specific in this regard. A list of phosphorus-reducing BMPs should be provided as an appendix, with detailed instructions as to how to relate BMP implementation to a removal percentage for the flow that is affected by the BMP. This should apply to both structural and non-structural controls. This will also minimize the frequency of phosphorus sampling required to assess compliance with the permit.

In addition to the need for more detailed methods of calculating reduction potential, the permit should address alternatives for urbanized areas where the installation of structural BMPs on public property may not be feasible. In these areas, communities can work with private property owners as properties are redeveloped to require BMPs on their sites. In the meantime, however, there may not be feasible approaches to meeting TMDL WLAs for phosphorus.

Furthermore, communities are required to develop a priority ranking of areas and infrastructure where phosphorus pollution is likely. This does not take into account naturally occurring phosphorus which no-doubt will be present in some areas and will be difficult to mitigate.

For all communities within the Charles River watershed, a phased approach with less stringent, achievable goals over a longer period of time is more appropriate until such time when research and development on phosphorus reduction in stormwater presents a range of feasible, cost-effective options for meeting water quality goals.

Phosphorus Trading and Offsets

“Trading mechanisms and offsets” are mentioned in the Draft Permit with regards to phosphorus reduction. We are hopeful that this is a step in the direction of more holistic water resources planning, where phosphorus trading could be between not only stormwater outlets discharging to one length of receiving water, but also between MS4 communities and wastewater treatment facilities.

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 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.

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.

BMP Removal Efficiencies and Related Information

As described above specific to phosphorus removal, the regulatory agencies should provide means of calculating removal efficiencies based on particular BMPs to arrive at a fair and equitable accounting across all communities. This is especially true for non-structural controls, such as public education

and outreach, detection and elimination of illicit discharges, source control, and good housekeeping. Results from these activities are hard to measure otherwise.

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 comments on the Draft Permit 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 Draft Permit requires sweeping of streets *and sidewalks* twice per year. This stated frequency for sweeping streets is not necessary and the town currently does not sweep sidewalks. We do not believe there is any significant benefit to sweeping the sidewalks on water quality.
- 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

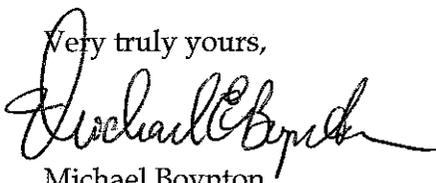
need to be met in water bodies where they are not presently being met. This rationale could be used by all permittees discharging to tier II waters to maintain the status quo.

- 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 and 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.
- The requirements for good housekeeping and pollution prevention from municipal facilities all appear to be reasonable and achievable, with the exception of the provision to investigate municipal buildings to identify all floor drains. This 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.
- The requirement to clean all catch basins when they are 50% full will require a significant increase in the frequency of 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.

In conclusion, the Draft Permit as presented includes numerous requirements that are not achievable and may be technically infeasible. The Draft Permit does not take into account time and budget constraints that affect Walpole as well as all the other regulated cities and towns. The requirements of the Draft 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 reasonable Final Permit with conditions 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 Town Engineer Margaret Walker, P.E. at (508) 660-7211.

Very truly yours,



Michael Boynton
Town Administrator

cc: Robert O'Brien, Public Works
Maggie Walker, Town Engineer
Landis Hershey, Conservation Commission
Bruce Haskell, CDM