



## ***TOWN OF NATICK MASSACHUSETTS***

March 26, 2010

United States Environmental Protection Agency  
Office of Ecosystem Protection  
5 Post Office Square – Suite 100  
Mail Code: OEP06-4  
Boston, Massachusetts, 02109-3912  
Attn: Thelma Murphy

Reference: Draft Small MS4 Stormwater Permit Comments

Dear Ms. Murphy:

On behalf of the Town of Natick, we are submitting the attached comments (Attachment A) on the new draft permit, known as the “North Coastal Small Municipal Separate Storm Sewer System (MS4) General Permit”. The draft permit includes 84 communities located in eastern Massachusetts and is designed specifically to reduce elevated levels of phosphorus in the Charles River, and pathogens in the Charles River, Neponset River and the Shawsheen River. The draft permit continues to build on stormwater management programs designed to reduce pollutants discharged from our municipal stormwater system to rivers and lakes which Natick started in the previous permit issued in 2003.

Although we agree with the overall draft permit goal to reduce the adverse effect of stormwater runoff to the Charles River and have successfully demonstrated our commitment to meet this goal through compliance with the previous permit issued in 2003, we have significant concerns with the effectiveness of many of the requirements in the draft permit. Two aspects in particular are troublesome for the towns: the financial implications and the paperwork/management that will be required.

The different tasks that are being proposed will cause municipalities to dramatically increase their budgets. We are estimating that we will have to increase our current stormwater management budget by approximately \$250,000 to \$350,000 per year to meet all the demands set forth within the permit. In the previous permit, much of the work we were able to do in-house using town personnel. However, with all the additional requirements, we will not be able to meet them utilizing existing personnel. Much of the analysis, record keeping, reporting and testing will need to be done using outside consultants and vendors. We are already struggling to keep our budgets balanced and there is no guarantee that the money spent under this permit will yield enough results to make the expenditures warranted.

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The other troublesome aspect of this permit is the paperwork/management that will be required. The record keeping and data collection that is being asked of the communities is staggering. Too much effort will be focused on keeping up with the data collection and less effort will be put on performing the work that will be effective in helping to educate the public on stormwater issues, reducing pollutants, etc. A "one size fits all" permit is being proposed that does not reflect the diversity among the MS4 communities as well as the actual work that was put forth by many of the towns. We know that there are many communities that did not fully meet the requirements of the 2003 Permit and that has caused EPA to make some of the requirements more stringent; this does not seem fair for the communities who have met their required tasks. Natick has made many strides in implementing control measures that have been effective in keeping our stormwater clean (i.e. educating the public on "do's and do not's of stormwater", cleaning Catch Basin/streets on a timeline that maximizes efforts and budget, more stringent construction erosion control and sediment requirements, the management of Post-Construction site controls). This permit does little to build upon many of these advancements and actually will cause us to spend less time on many of these activities so that we can meet the other data collection and analysis requirements.

Attached to this letter, you will find Attachment A which is a list of questions and concerns that the Town of Natick has in regards to the draft permit. Thank you for the opportunity to present our concerns. We hope our comments will help show the hardships that we are presently under and the detrimental effect that the draft permit will have if it is passed as presently written. More municipal involvement should have occurred during the program's development. We believe that before this permit is finalized, modifications should be made to ensure that the intent of the permit is still being met but in a manner that will allow the municipalities to perform the tasks in a way that will not cause adverse financial impacts. One recommendation would be for EPA to create a "working group" of municipalities, watershed agencies, EPA and DEP representatives that will be able to blend all the concerns of the various entities and create a "final" permit that meets that goal. The Town of Natick would be willing to be a part of this group as we believe other towns would be willing to be a part of as well.

Very truly yours,



Mark Coviello, P.E.  
Town Engineer

Cc: M. White, Town Administrator (w/Attachment)  
A. Peisch, State Representative (w/Attachment)  
D. Linsky, State Representative (w/Attachment)  
K. Spilka, State Senator (w/Attachment)  
S. Brown, U.S. Senator (w/Attachment)  
J. Kerry, U.S. Senator (w/Attachment)  
E. Markey, Congressman (w/Attachment)  
G. Beckwith, MMA Executive Director (w/Attachment)

**Attachment A:  
North Coastal Draft Permit Comments and Questions**

**Sections – 1.9.1 & 1.9.2 Documentation Regarding Endangered Species and Historic Properties**

- Compliance statements for the above two sections must be submitted with the NOI for this permit. Additional time should be provided to municipalities to complete. This may require funding for outside services and therefore additional time should be provided for the funding and procurement process.

**Section 2.2.1 – Discharges to Impaired Waters with an Approved TMDL**

2010 Total Phosphorus Load – Charles River

- Municipalities are required under this permit, for calendar year 2010, to estimate the total annual phosphorous load discharging to the Charles River from its municipality. This is to be done immediately and communities will not have the time and funds in place to perform this task. We will then be forced to accept the 2000 Total Phosphorous Loads for each community listed in Table G-2 of the appendix.

The loads in these tables are general in nature and were calculated based on land uses as of 2000. The figures listed in the tables may not reflect actual pollutant loads. However, we will be required to use them as our basis for future removal rate calculations or will be required to “adjust these numbers by subtracting from it reductions resulting from abatement measures implemented between January 1,2000 and December 31,2009 and adding to it increases in loadings due to new developments or changes in practices during the same period”. This is an unreasonable exercise and I would guess that the results will be very subjective. I can see some municipalities justifying that based on implementing the requirements of the current permit (from 2003 to the present) that they have meet the required reductions in loadings. Is this a correct assumption?

- The requirement to develop a PCP will require outside consultant services for most municipalities. The components of this plan will require significant amounts of annual documentation and reporting.
- Because all of Natick’s outfalls ultimately discharge into a water body with an approved TMDL or to a water body with an impairment we will be required during wet weather and dry weather (screenings) to test for those pollutants causing the TMDL or impairment. In our case with currently 505 outfalls this will be huge expense to our Town. In the case of testing for phosphorous (nutrients), what will the results tell us? The level of phosphorous at a flowing outfall will be highly variable due to the storm intensity and duration; the timing of when the sample is taken (during first flush); the duration of time from the previous rain event prior to when the sample is taken; the capacity of the pipe and the watershed tributary to that discharge; the time of year and temperature when samples are taken; and the fact that the level of phosphorous maybe due to natural soil conditions. Given all of these variables, what is the value of testing for phosphorous? Some of the same variables mentioned above will have an effect on the results of testing for pathogens.

- The results of the wet weather sampling for phosphorus will not be an indicator that the measures taken as part of the PCP are working because of the variables mentioned above; therefore the testing for phosphorus should be eliminated as a requirement of this permit.

### **Section 2.3 – Increased Discharges, New Discharges and Anti-Degradation**

- Reference is made to new dischargers and increased discharges and definitions to both. After reading the definitions, the Town’s assumption as to the intent of this sections is that since the Town already is permitted (and will be under this permit) that the “new dischargers” section wouldn’t affect us. This doesn’t refer to specific entities (i.e. new facilities, buildings, developments, etc) within the Town correct? We would like clarification to determine if we are analyzing this section correctly.
- Under the anti-degradation section of Section 2.3, it is the Town’s assumption that this just refers to new or increased discharges to “unimpaired” waters. Since Natick drains to either the Charles River (impaired) or Lake Cochituate (impaired), we would not be covered by this section as all our waters are impaired. We would like clarification to determine if we are analyzing this section correctly.
- In regards to increased discharges and being able to adequately implement the changes noted in the permit, it is the Town’s feeling that bylaw changes will be required to fully implement what is being required. It will take time to get these changes passed through Town Meeting. However, in Section 2.3.1, it states that an increased discharge is one that commences after the effective date of the permit. This timeframe should be changed to allow for the town to implement bylaw changes to make sure that the Town is able to obtain all the information from builders, developers, etc.

### **Section 2.4.2 - Public Education and Outreach**

- It appears from reading the permit that the EPA will allow the town to just use electronic means (TV, internet) to get the message out. Is this true?
- Under 2.4.2.4, it states that the permittee must report on the message for each audience, how it was distributed and the methods used to assess its effectiveness but it does not state that the town has to report on its effectiveness assessment yielded. Will specific numbers or goals need to be created prior to the permit and then assessed after each year?

### **Section 2.4.4.7 – Outfall Inventory**

- Under this permit the Municipality must conduct an outfall inventory for each stream mile within its jurisdiction. What is a “stream mile”? Are we to expect that we could have outfalls that we located under the current permit that we will not have to inventory under this permit because it is not within or discharging to a “stream mile”?
- The wet weather analytical monitoring results will be highly variable (and may not be an indicator of a problem or may even mask a problem) because of the following;
  - Storm intensity and duration of the rainfall at which time the sample is taken.
  - The timing of when the sample is taken. In other words during the first flush of the storm or sometime afterwards.

- The time period between storm events.
- The time of the year and temperature when the samples are taken.

This permit doesn't account for these variables.

- In regards to system mapping, it is stated that the map has to show the receiving waters. However, there is no indication as to whether we have to signify if the receiving water needs to be identified on the outfall inspections form. If it is required, to what level do we have to identify the receiving water (i.e. at a watershed level (SuAsCo or Charles River Watershed) or broken down to the individual water body (i.e. Lake Cochituate, Dug Pond)).
- Under Section 2.4.4.7 (Outfall Inventory) and continued in the IDDE section (2.4.4.8), it notes that if flow is observed during dry weather flow, a sample should be taken and analyzed. Some of the values that we would obtain can be received on the spot through test kits but there are other contaminants that will need to be sent to a lab for testing. The Town would not be able to move upstream until we received the results from the initial test which would take 24 hours at a minimum. This method seems very cumbersome. Our recommendation is that visual inspections/screenings be the preferred method to determining issues in the line and field testing/lab testing being the secondary method if the visual inspections do not yield any solid results after the initial investigation.

#### **Section 2.4.4.8 – Illicit Discharge Detection and Elimination Program**

- The timeframe noted for the removal of illicit connections is too aggressive and will not be able to be met by many of the communities. This timeframe should be modified to a more realistic timeframe taking into consideration existing municipal budgets and manpower.

#### **Section 2.4.6 – Stormwater Management in New Development and Redevelopment**

- Under Section 2.4.6.4.a.i., it states that stormwater controls are designed such that there is no discharge of stormwater from the volume associated with a 1 inch storm event. A 1 inch storm event is the majority of our storms and it is unrealistic to believe that this requirement can always be met. While infiltrating into the soil is a great alternative, due to soils and location, this is not always a method for stormwater management. There are many locations that on site management of the storm water cannot occur. We don't believe a specific storm event should be noted. A modified statement saying that discharges shall be minimized to the maximum extent practicable.
- Under 2.4.6.9 (Directly Connected Impervious Area (DCIA)), municipalities are forced to accept the EPA's calculated figures of DCIA for each watershed or tabulate our own results and document our methodology. The EPA figures are not based on reality, they are figured using some obscure equations whose results may have little resemblance to the actual pollutant loads. However, if we are to contest these figures we will be forced to do our own calculations on DCIA in each watershed. These calculations will be extremely difficult to perform without a very large field survey effort to properly document our findings. Documenting and recording these findings will be necessary because we are required by this permit to annually report on the changes in the amount of DCIA and IA (impervious area) in each watershed. This seems to be a huge waste of our efforts (time and money). It doesn't make sense from a cost benefit ratio to demand us to go through this exercise when all you are concerned with is the increase of IA within a basin or if

there can be any reductions in DCIA with each basin. An alternative suggestion would be that we just report on any increases or decreases of IA or DCIA within each basin (resulting from new developments, redevelopments, or retrofit BMPs) starting from the implementation date of the new permit. This could be tied to the Municipalities PCP plan where a municipality is credited with reductions in IA or DCIA or if they implement BMPs to reduce pollutant loadings from any increases in IA.

### **Section 2.4.7.1 Operations and Maintenance Programs**

#### **Catch basin inventory program (CBIP)**

- The CBIP program requirements are very onerous and will be very expensive to implement as stated. The ultimate goal of the program is commendable however the stated requirements do not reflect the reality in that the person writing these procedures is not in touch with how catch basins are cleaned or the variability in of how catch basins are constructed. Requiring personnel to inspect all catch basins on a regular basis; measure to see if the basin is ½ full or more; schedule to have that basin cleaned; and then document the amount of the material clean from that basin; enter the amount collected into a data base; and then to program that basin to be cleaned on a more frequent basis is onerous when you consider that Natick has over 4,500 catch basins it is responsible for. Catch basins sump depths vary greatly, a large number of basins in our town do not have sumps or the sumps are very shallow (we would be cleaning these basins after every storm if we followed the permit requirements). Tracking the amount of material removed from each basin to use as an indicator that there is a problem is a huge undertaking and provides only a snap shot in time and is not reflective of a problem. We find most catch basins require more frequent cleaning if they are at a low spot in a long stretch of road and is only an indicator that gutter flow bypasses catch basins up stream because of debris blocking the grates or the storm event is large enough to cause flow bypass. This is not an indicator of a problem.
- In Natick under the current permit we clean a third of our basins every year. When we clean them and if we notice a problem such as a structural issue; or if the basin has a sump and it's substantially full we note that basin and schedule more frequent cleanings or repair. We do not keep track of the volume of material taken from each basin because that doesn't provide any useful information. We do keep track of the total volume of material collected from all catch basins each year but we still are not sure what that info is telling us. It may be indicator that we had a long hard winter and applied a lot of road sand and not that there is a problem or require more frequent cleaning intervals.
- We would suggest that we continue to clean the basins on a regular basis such as a third of the Town each year, and leave it up to the Towns to determine if more frequent cleanings are needed or justified. The way the permit is written it will be a budget buster. Why not leave it up to the municipality to include more frequent catch basin cleanings as this could be tied into the municipalities phosphorous control plan (PCP) that you are now requiring us to develop. Increased frequency results in reductions in our phosphorous loads.
- **Under 2.4.7.1.ii, Water Fowl** – While the intent of this section is understood, all the town's efforts would be better served focusing on other areas. Our recommendation is that one of the targeted messages for the residents be in regards to the Water Fowl congregation but that a large

expenditure of time and money on this issue would be counterproductive to what is trying to be done by the permit.

- Within this section, it states that the permittee is required to either establish or continue the implementation of a program to repair and rehabilitate its infrastructure in a timely manner. The draft permit requires the MS4 to maintain its streets, roads and rights of way in such a manner as to minimize the discharge of pollutants from the MS4. Are there going to be any measurable goals that need to be reached here to fit within the framework of “a timely manner”?

#### **Street sweeping and/or cleaning streets, sidewalks, and parking lots.**

- This task does not taking into consideration any of the work that has been performed during the previous permits by the town on maximizing cleaning while also maximizing the associated benefits.
- Requiring that all streets in the Town are swept twice a year will end up being a huge cost impact to our Town. Natick has approximately 150 miles of roadway and we feel that the current permit should be left unchanged in this area, and the Towns should be able to determine areas that may need more frequent sweepings based on a variety of factors.
- Requiring under this permit that ALL sidewalks in the Town are swept twice a year will be a budget buster for Natick considering the number of miles of sidewalk (approximately 125 miles of sidewalk) and variability in their widths; accessibility; and condition. Natick currently sweeps all the sidewalks on the main roads and downtown areas once a year. This is done by hand with blowers and mechanically hand held sweepers that push or blow the debris into the street to be picked up by street sweeping machines. Requiring us to clean all sidewalks and to clean them twice a year will be impossible to meet with the current budget/manpower and will not be made easier by budget cuts and manpower layoffs.
- We are required under this permit to develop a Sweeping Optimization Program (SOP). Why bother going through this exercise when under this permit you are requiring (dictating) to us to increase our efforts? Why not make it a true SOP and leave it up to each municipality to determine what level beyond the current permit requirements it needs to increase its efforts in the level of street/parking lots/sidewalk cleaning. This could be tied into the municipalities phosphorous control plan (PCP) that you are now requiring us to develop where increased efforts beyond the current permit could result in credits in meeting our reductions in phosphorous loads.

#### **Section 3.3 – Wet Weather Analytical Monitoring**

- There are too many variables with this testing that could cause skewed results that will not accurately depict the situation that is occurring. The towns are already required to perform dry weather screenings. With over 500 outfalls within the Town of Natick, to perform dry and wet weather screenings and samplings will be both burdensome from a financial standpoint as well as a timing one as well. A large expenditure of money will occur for a task that will yield questionable results at best. Also, a few parameters of the testing will call for tests that cannot be performed in the field which will cause additional timing issues in completing inspections not only at the outfalls but upstream of the outfalls if contaminants are found during the initial inspections.

## Appendix G: TMDL

- On Page 8 of Appendix G of the permit, it refers to Natick's TMDL. It is noted that Natick has to have a 54% reduction in Total Phosphorus and then it has Geometric Mean totals listed. Are these geometric means referring to Pathogen removal and not Phosphorus removal? If so, what percentage removal is it referring to for Pathogen removal for Natick?
- In regards to Phosphorus testing and removal, there do not appear to be any water quality standards for phosphorus in regards to acceptable limit ranges of Phosphorus. How do we know if we are in an unacceptable range? The permit states that Natick has to remove 54% of phosphorus but how do we know if we are not at an acceptable level. Also, if the Town tests the discharges only once in five years, how do we know if our work is making a difference?
- Preliminary estimates provided to us have indicated that structural measures to implement phosphorus removal rates required under the Phosphorus Control Plan (PCP) could become multi-million dollar endeavors for Natick and other communities.
- The removal percentages were created using land use and not taking into consideration what is actually occurring with field tests to determine sample results.

### General Questions and Comments (not related to a specific section)

- The Town of Natick is part of two watersheds: the Charles River and SuAsCo watersheds. In this permit, TMDL's are given for the Charles River but there is no mention of the SuAsCo. When the other permit(s) come out, will the Town of Natick be held to the standards of that permit for impaired waters within the SuAsCo watershed?
- Communities with a zoning overlay district bylaw and a stormwater bylaw focused on protecting the quality of groundwater and promoting stormwater recharge already have a mechanism in place to reduce impervious areas and protect stormwater quality.
- Communities that have completed dry weather outfall inspections must be able to use this information as a prescreening step in developing the IDDE Program.
- Communities that have required Spill Prevention Control and Countermeasure Plan should be considered compliant with the SWPP requirement at its public facilities.
- A simple commitment to replace clean outdated stormwater infrastructure when opportunities present themselves with a program to clean catch basins at a predetermined frequency should be enough to comply with the General Permit.
- This is an unfunded mandate.