



Via email

March 31, 2010

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

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

Dear Ms. Murphy

Kleinfelder/S E A Consultants, a Massachusetts consultant to municipalities, is herein providing comments on the draft Massachusetts North Coastal Small MS4 General Permit for Stormwater Management applicable to 84 municipalities in Massachusetts.

Regulatory/Administrative/Cost

- Although it is not mandated by the regulation, EPA implies through requirement to identify funding mechanisms for program implementation that MS4's should or must develop a storm water utility or similar program. Even if communities were to begin this process immediately, it will take time to implement such a program. A large percentage of the costs to implement the new permit are front-loaded to the first 1-2 years of the reporting term. It will be extremely difficult to fund the required efforts prior to implementation of a utility or fee system to fund the effort. Consideration should be given to prioritizing the funding mechanism and delaying the immediate obligations under the proposed permit.
- There are numerous intra-permit term milestone and deadline dates for certain activities, many of which are unrealistic. EPA should clarify whether or not each missed milestone constitutes a potential non-compliance and therefore enforcement action. For instance, the permit requirements will impose a disproportionately complex and costly obligation on communities which have not yet undertaken more extensive system mapping (ie more than the outfall mapping required under the first permit). The IDDE elements of the program rely upon comprehensive mapping of both the drainage and sanitary sewer systems, and the Phosphorus Control Plan component requires additional mapping as well. This element alone could require hundreds of thousands of dollars and considerable time, potentially well beyond the timeframes dictated in the permit (mapping to be completed within first two years of permit).
- Estimated annual costs for implementation of the program have ranged into the hundreds of thousands of dollars. Costs are highly dependent on number of outfalls, extent of infrastructure, and status of infrastructure mapping (for both storm and sanitary sewers), as well as other GIS-based analytical tools, among other issues. The resources available within disparate communities to achieve the requisite milestones are highly variable. It is unrealistic to expect every community to be able to meet the stringent requirements and highly labor intensive data collection and administrative requirements of the draft permit as it is now proposed. Development of the SWMP by individual communities should allow for consideration of these constraints.
- Many of the data collection tasks relate to region or state-wide efforts, such as water quality classifications, identified impairments and endangered species habitats. This

data should be made available to all regulated communities as downloadable GIS data rather than impose a highly redundant effort on individual communities.

- Until such time as the investigations and data collection activities have been concluded, it is impossible to estimate costs associated with required corrective actions. Costs to develop and implement the program may be dwarfed by the costs of achieving the required results. Requiring information associated with costs and adequate funding mechanisms in the early period of the permit term is unrealistic.

Technical

- Section 2.2.1.d.vi. states that “The permittee shall establish for the calendar year 2010, an estimate of the total annual phosphorus load (2010 Total Phosphorus Load) discharging from its entire municipality...”

From phosphorus TMDL studies that have been approved and adopted by the EPA, it is apparent that the science of estimating phosphorus loading involves far more than just applying a loading rate to a land use. The loading rates themselves are open to dispute, and the methods of estimating loadings can become very complex when attempting to account for site specific conditions, historical factors, and a vast array of existing BMP's all with varying reduction rates, themselves depending on frequency of maintenance and upkeep of the BMP. EPA should clarify if municipalities are going to be left to invent their own methods to undertake such a potentially complex calculation - one that could have long-term impact on their progress and compliance status. Alternatively, EPA should clarify if it plans to issue a standard methodology for estimating the “2010 Total Phosphorus Load” so that there is broad consistency.

- There is no mention of computer modeling for pollutant transport in the draft permit. Some communities have invested substantial resources in developing hydraulic models for all or portions of their stormwater systems. Depending on the computer models used, some can easily be adapted to also model pollutant transport. The EPA should offer compliance credit for those communities who already have or could easily add this capability onto their existing hydraulic models. This would be a useful tool that could help communities understand and mitigate the pollutant loading effect of development. The EPA should be willing to offer incentive in the form of compliance relief. For example, a Town that has a pollutant transport model in place and calibrated could have significantly reduced ongoing outfall monitoring requirements.
- Regarding Section 3 Outfall Monitoring Program: Please clarify whether EPA is going to develop standards or minimum qualifications or certification for water testing consultants, laboratories, and sampling personnel to ensure broad consistency. Will municipalities have the option of sampling and testing with their own staff and laboratories?
- Regarding section 2.2.1 Discharge to Impaired Waters with an Approved TMDL: The field of BMP products and technologies that are TARP or Mass STEP approved is relatively small. More importantly, those that are available and approved are geared towards individual site designs with relatively small total flows and volumes. It is unclear how large high flow, high volume discharges from outfalls can be treated for nutrient/pollutant removal except with large chemical treatment facilities. Alternatively, the concept of retrofitting smaller treatment measures at the runoff sources over large drainage areas seems even less feasible and would create daunting operation & maintenance challenges. Implementation of the regulations seems premature when considering the treatment options that are currently available. Does the EPA have a realistic vision or concept of what a complying municipality's TMDL treatment facilities would look like?

Are there pilot communities where full compliance has been achieved? Having access to such an example would be very useful to help municipal managers understand, in practical terms, the expectations of the new regulation.

- Outfall Monitoring – The permit should allow some flexibility for those municipalities with a significant number of outfalls. The ability of a municipality to collect samples manually is difficult from a coordination stand point, both for personnel and for timing of the storm event. The alternative to this is the purchase of automated sampling equipment. For municipalities with a significant number of outfalls this equates to a substantial number of sampling devices if the mandatory schedules are to be met. Automated sampling is also problematic because of the exposure to potential equipment vandalism or theft, in addition to the issue of providing power to the equipment. A limit to the number of outfalls sampled annually should be defined, or negotiated with the municipality individually.
- Development of a PCP program for implementation to be initiated within a four year time frame for those municipalities with a significant number of large flow outfalls within the Charles River is unrealistic. This requirement has the potential to produce a series of construction projects to re-direct stormwater flow back to wastewater treatment facilities for treatment. Many municipalities have invested enormous resources, often under Administrative Consent Order, to separate stormwater and sanitary sewer flows. This regulation may force other communities to re-combine the flows because of economics associated with the treatment necessary to meet TMDL loadings. The longer term result of the re-combining of storm flow may produce more frequent SSO's, a clear contradiction of program objectives.
- Alternatively, if re-combining flows is unrealistic or not permissible under regulatory constraints, for large flow outfalls the end of pipe treatment for phosphorous will likely require chemical treatment, thereby requiring additional financial and personnel resources to perform O&M.
- The monitoring of 25% of outfalls each year in both wet and dry weather conditions is costly and unreasonable. Wet weather monitoring is of little value as it relates to identified IDDE objectives of this program and such monitoring should be kept to a minimum, and with representative rather than comprehensive sampling at outfalls.

We appreciate the opportunity to submit comments on the draft permit. Should you have any questions, please feel free to contact me at 617 498 4679 or Stephen.Geribo@seacon.com.

Respectfully yours,

S E A CONSULTANTS INC.



Stephen H. Geribo
Director of Municipal Services

cc: file