



S.W.I.M. Coalition

Stormwater Infrastructure Matters: utilizing
stormwater as a resource, not a waste!

November 18, 2011

Gary Kline
NYS DEC, Division of Water
625 Broadway, 4th Floor
Albany, NY 12233-3506

Re: **2011 Modification to Order on Consent between the City of New York and the New York City Department of Environmental Protection (NYC DEP) and the New York State Department of Environmental Conservation (NYS DEC) DEC Case # CO2-20000107-8, (a.k.a. NYC CSO Order)**

Dear Mr. Kline,

We applaud the incredible strides taken by this administration to advance the use of Green Infrastructure (GI) as a central aspect of CSO control. We have witnessed a sea change in the last several years that bring us to this point where the city and state are both prepared to formalize the integration of GI into the city's CSO compliance efforts, via the proposed 2011 CSO Order Modification (CSO ACO) and the city's Draft Stormwater Performance Standard with accompanying Technical Guidelines (The Rule).

The Stormwater Infrastructure Matters (S.W.I.M.) Coalition, is a group of more than 70 organizations, including community and environmental groups, architects, engineers, boaters and scientists, that are dedicated to ensuring swimmable waters around New York City through natural, sustainable stormwater management practices - Green Infrastructure - in our neighborhoods.

S.W.I.M. championed the New York City Council's efforts to pass Local Law 5 of 2008, which required development of the city's first Sustainable Stormwater Management Plan, completed that same year. Today, we are actively engaged with NYC DEP concerning the agency's refinement and implementation of the approaches outlined in its 2010 Green Infrastructure Plan 1. We are pleased that many aspects of the approach we recommended in our comment letter submitted to DEC on November 12, 2010, concerning the NYC Green Infrastructure Plan, have been adopted in the proposed modified order.

Our concern is focused on how the commitments being made at this moment can be successfully ingrained into the fabric of city government programs, both now and into future mayoral administrations, in a way that achieves cost-effective, sustainable solutions to CSO, as well as provide the multiple benefits we are all committed to. We recognize that additional planning for GI will be a part of the process for developing Long Term Control Plans over the next six

years. However, we believe it is important for the city and state to establish, at this time, a solid framework to ensure those efforts succeed.

In this spirit, we offer the following comments regarding both the CSO ACO and The Rule, which we see as cornerstone elements of GI policy. Since the City aspires to implement GI over 10% of the land surface in the CSO area in the next generation, with most of that coming from work on private property, and since the city's main tool for stimulating investment in the private sector is The Rule, we include here our comments on The Rule as well as the CSO ACO.

Comments on The Rule:

According to the US EPA, “Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspire, and/or recycle stormwater runoff” and “can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these technologies can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits.”

While basic detention and delayed release can be valuable in terms of CSO control, DEP's 2010 GI Plan states that it is only 60% as effective as retention methods (such as with GI) that keep runoff entirely out of the sewer. Basing a stormwater rule on a rate reduction, rather than volume reduction, favors detention over true GI, limiting how developers and neighborhoods can reap the multiple benefits just mentioned. It is our hope that the NYC DEP takes a second look at the basic premise of this draft rule, and opts for the creation of a stormwater rule that directly drives the use of GI -- including not only infiltration, but also evapotranspiration and rainwater harvesting -- as the principal means of compliance wherever feasible. We emphasize that, even where infiltration may not be feasible, methods such as green roofs and analogous lined bioretention facilities at the ground level can effectively reduce runoff volumes by retaining runoff in the pore space of the soil for subsequent evapotranspiration, and that rainwater harvesting techniques can also be applied.

We urge DEP to ensure that the Technical Guidelines provide clear guidance about what GI designs will be sufficient to achieve a given amount of “credit” toward compliance with the performance standard, and that the rule and guidelines ensure that sufficient credit is given for the full functionality of GI techniques. (For example, the current draft of the Technical Guidelines assumes 70% of rainfall will runoff from a green roof, which is not consistent with current research or experience, but rather significantly understates the effectiveness of a green roof.) We are concerned that developers will find a “gray” approach, based on detention and delayed release, to be the “path of least resistance” to get permit applications approved, and that investments in green infrastructure will not be duly rewarded towards achieving compliance with the DEP's performance standard, thereby detracting from or undermining the cost-effectiveness of green infrastructure as a means for compliance. We urge DEP to issue the final rule and technical guidelines in a form that avoids that potential outcome.

The ACO:

The inclusion of ‘detention’ in definition of GI in the CSO ACO, coupled with the detention-based nature of The Rule, could lead to over-reliance on detention practices by private developers and limited use of true GI practices that utilize retention and treat stormwater as a resource, not a waste. Clarification on the definition of Green Infrastructure is needed in this document.

The S.W.I.M. Coalition recommends including the following benchmarks in the CSO ACO:

- Identification of long-term funding mechanisms for maintenance of GI and clear assignments of maintenance responsibility among city agencies (including responsibility and authority for assuring proper maintenance of GI on both public and private property)
- Expansion of DEP GI Office to include qualified soil scientists, hydrologists and horticulturalists to engage in next stage of GI planning and implementation
- Evaluation of policy measures the city will implement to fully incentivize green infrastructure in the private sector
- Clarification that credit towards the required GI application rates is conditional on proper maintenance and operation of GI installations
- Additional deliverables regarding the city's establishment of institutional structures necessary to implement the ACO's GI requirements, such as the following examples included in Philadelphia's recent CSO consent order:
 - Adaptive management plan that sets forth protocols for decision making throughout the implementation of the ACO's GI requirements
 - Comprehensive monitoring plan
 - Operation and maintenance plan
 - Maintenance manual for GI on both public and private property, based on lessons learned from demonstration projects and experience with the Staten Island Bluebelt and other relevant expertise and experience
 - Plan for streamlining city codes, ordinances, policies, and interagency procedures to optimize GI implementation
 - Development of data tracking systems for GI projects

Moreover, the CSO ACO must be incorporated as an enforceable term of the city's SPDES permits under the Clean Water Act. Our interest is in protecting the public's right to meaningfully participate in the long term planning that is mapped out in the 2011 ACO, and this will be a 20+ year process that will involve multiple city and state administrations over time. Our broad membership represents the stakeholders in Green Infrastructure policy, planning, design, implementation, monitoring and maintenance, who will continue to work on this issue for the duration of this lengthy process.

The Gowanus Canal, Newtown Creek, Bronx River, East River & Open Waters, Hutchinson River, and Jamaica Bay are all expected to receive more CSO discharge than the 2005 commitment. Our members are concerned that the NYC ACO projects increases in CSO volumes for several impaired waterbodies. In particular, volumes in the Gowanus Canal are expected to increase by 22MGY under the 2011 CSO Order, and Newtown Creek expects an increase of 136MGY, potentially jeopardizing the long- term effectiveness of the Superfund cleanup in these waterbodies. We expect that, if necessary, scaled-down grey infrastructure will be implemented as a compliment to green efforts to meet or exceed water quality goals. The 2011 CSO Order Modification should include clear assurances that the initial shortfall projected for the these waterbodies will be recouped, including clarification on a mechanism for adaptive management that integrates emerging information into goals-driven planning efforts that reflect the growing legions of boaters, open water swimmers and fishermen throughout the NY Harbor and its tributaries.

Additionally, for waterbodies where the projected level of CSO control does not achieve the current standards set by New York State DEC, the Use Attainability Analysis process should not result in a reduction of water quality standards. Instead, the order should ensure that the LTCP process is used to define actions for meeting the existing standards or higher ones, and for

protecting all actual existing uses (including swimming and other recreational activities that involve extensive direct contact with the water, such as kayaking and canoeing).

Finally, as the long-term solutions take shape, we see an urgent need for improved public notification of CSOs that release untreated wastewater into NYC waterways and create a public health hazard for waterfront users citywide. NYC public notification system should be improved in the following ways:

- Advisories must apply to all waterfronts citywide, not just to those that affect bathing beaches.
- Advisories should directly indicate the “location and occurrence” of CSO events – as required by the explicit terms of the city’s SPDES permits -- not the effect mid-channel and/or on a 30-day average.
- Advisories should effectively reach the public using multiple channels such as radio, TV (broadcast meteorologists) and Internet.
- NYC DEP and DOHMH must work with the boating, fishing and open water swimming communities to ensure effective notification for these waterbody users.

Thank you again for considering this input, and for your continued commitment to Green Infrastructure and CSO control.

Sincerely,
Kate Zidar



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