



SWIM Coalition

Stormwater Infrastructure Matters

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Testimony of Michael Dulong

On behalf of Stormwater Infrastructure Matters (SWIM) Coalition and
Riverkeeper, Inc.

before the New York City Department of Environmental Protection

on the 2021 Unified Stormwater Rule

Thank you for the opportunity to deliver public testimony on the City's draft Unified Stormwater Rule and thank you to the Department of Environmental Protection (DEP) staff members for your work to draft a rule to establish more stringent requirements for stormwater management on significantly modified and new development sites citywide and for the important new stormwater design guidelines manual to support the new rule.

Stormwater Infrastructure Matters (SWIM) Coalition is a group of 70 organizations dedicated to ensuring swimmable and fishable waters around New York City through sustainable stormwater management practices — both green and grey infrastructure. SWIM Coalition member organizations endorse a truly sustainable view of watershed management, one that restores ecological systems, creates local economic opportunities and equitably distributes the benefits of green infrastructure.

The next decade is crucial in terms of how we address our stormwater and climate change-related challenges in NYC. According to the [NYC Panel on Climate Change](#), our region can expect to see a 1 – 8% increase in precipitation in the 2020s, and 4 – 11% increase by the 2050s. Recent storms have clearly foretold what our future looks like if the City doesn't accelerate its timetables to prepare our stormwater and wastewater infrastructure for increased rainfall and sea level rise. SWIM coalition supports the goals (pages 15 -17) reflected in the [Stormwater Resiliency Plan](#) published in May 2021 by the Mayor's Office of Climate Resiliency as well the recommendations (pages 14 -18, 42 -45, 51-64) in the September, 2021 [The New Normal: Combatting Storm-Related Extreme Weather in New York City](#) report, produced by the Extreme Weather Response Task Force.

The Unified Stormwater Rule is a key initiative that will help achieve the goals in the Resiliency Plan by promoting green infrastructure development; easing the strain on New York City's already overburdened sewer system; improving water quality citywide; and complying with multiple regulatory compliance requirements mandated by the state Department of Environmental Conservation. The SWIM Coalition

strongly supports swift implementation of the Unified Stormwater Rule, and we appreciate the opportunity to provide the following comments to strengthen the rule before finalization.

Below are some of the key concerns that waterway advocates across the city have raised regarding the new stormwater rule:

I. The soil disturbance threshold for covered development projects should be set at 5,000 square feet, not 20,000.

We appreciate that DEP has included a new impervious surface area threshold for covered development projects of 5,000 square feet. This provision is crucial to ensuring that projects that create new impermeable surfaces are sufficiently controlled to manage surface water. The development of new impervious surfaces limits or prevents infiltration of stormwater, which increases the volume and rate of runoff likely to carry pollutants such as sediments, nutrients, and contaminants.

However, the impervious surface threshold does not go far enough. It is the case in New York City that most development will in fact be redevelopment and unlikely to create more than 5,000 square feet of *new* impervious surface. The development of hundreds of properties of less than 20,000 square feet without sufficient stormwater controls will have a cumulative adverse impact on the city's sewer system and waterways.

DEP's own consultants have found that "[t]he approximate 'knee-of-the-curve' for acres v. permits is around 15,000 SF."¹ Almost all large cities impose stormwater control requirements on lots smaller than 20,000 square feet. While other cities have much smaller thresholds, Philadelphia has set its threshold at 15,000 square feet.

As construction and development on any size lot can lead to increased combined sewer overflow (CSO) events, the soil disturbance threshold needs to be smaller than 20,000 square feet in order to ensure that a larger number of sites have to comply with the new rule.

Moreover, soil disturbance and new impervious surface should not be the only criteria for stormwater management regulations. Other criteria to consider are: the groundwater table (high or low), bedrock challenges, a property's proximity to superfund sites, impaired waterbodies, waterbodies that have [CSO Long Term Control Plans](#) underway, and the surrounding density of the construction site.

II. Post-construction stormwater control is crucial for maintenance projects greater than 20,000 square feet in the public Right-of-Way.

We appreciate that DEP includes maintenance and development in the public Right-Of-Way (ROW) as a "covered development project" in the draft rule and updated NYC Stormwater Manual; however, this requirement would only apply to projects that are greater than one acre, in contrast to all other projects that are subject to such controls for a disturbance greater than 20,000 square feet. The relaxed threshold for ROW projects reduces opportunities for stormwater management on construction or reconstruction projects that would otherwise trigger the 20,000 square foot threshold post-construction stormwater control requirement.

According to DEP, the public right of way "constitutes approximately [30% of the impervious cover](#) in the

¹ N.Y. City Dep't of Env'tl. Protection, Municipal Separate Storm Sewer System Management Program Updates at 24 (Dec. 13, 2016).

city and generates significant stormwater runoff during rain events.” This area creates a tremendous volume of polluted stormwater runoff and therefore represents an important opportunity to reshape the city’s stormwater practices. Such stormwater controls are especially important at street ends abutting waterways, where the typically low-lying street ends could be used as “sponges” to retain, detain and treat polluted stormwater. Therefore, we urge DEP to revise this exception and adopt the 20,000 square foot threshold for road construction projects. If not, please explain why the stormwater management burden for public ROW projects is different from that of private development projects.

III. The No Net Increase analysis (NNI) should be required for all pollutants and all waterbodies impacted by the construction sites.

Under the MS4 requirements , a NNI analysis is required for “impaired waterbodies,” however, this requirement is not proposed to be extended to areas falling within the Combined Sewer Area as part of the Unified Stormwater Rule.

NNI analysis should be required for all covered projects — not just those in MS4 areas, and not just those in priority waterbody sewersheds — and DEP should use the most stringent analysis, which is the Nitrogen NNI. These standards should also be applied to other pollutants: pathogens, phosphorus, floatables. **It is only by conducting a more thorough analysis that we can understand how a waterbody will truly be impacted, and employ the proper mitigation measures to ensure a Net Zero effect on stormwater outfalls and CSOs.**

Additionally, it is recommended that the NNI requirements under MS4 be revised to include an analysis for *all* waterways and not solely limited to those listed as impaired due to urban runoff. As it stands right now, the analysis is allowed to be skipped entirely if a waterway is not listed as impaired. The analysis should not be skipped for any covered development project and must be considered to ensure long-term water quality improvements.

IV. Additional requirements/allowances should be established for sites impacted by high groundwater, depth to bedrock, and contaminated soil conditions.

As part of the SMP Hierarchy for both combined sewer system (CSS) and MS4 Areas, applicants will be required to assess whether infiltration practices are feasible based on groundwater and bedrock clearance and soil contamination. With these limitations, infiltration infeasibility is likely in many areas of the City facing high or low groundwater table, bedrock challenges, a property's proximity to Superfund sites, impaired waterbodies, waterbodies that have [CSO Long Term Control Plans](#) underway, and the surrounding density of the construction site.

Where infiltration is deemed infeasible, on the ground, infiltration-based green infrastructure will be impractical, limiting the potential of the new rule. We therefore recommend that this step in the permitting process be amended to require these sites provide additional stormwater capture or CSO mitigation in the watershed, through one or all of the following mechanisms:

1. Requirements for increased on-site subsurface detention in addition to vegetated treatment practices;
2. Through CSO mitigation SMPs as part of an extended CSO No Net Increase analysis; and

3. The establishment of a fund, similar to the DPR Tree Trust, where the applicant pays into a fund (managed by DEP or other governing entity) for the implementation of green infrastructure practices on City owned land, elsewhere in the watershed (Parks, Street Ends, and public ROW).

V. Commitment to Long-Term Monitoring and Annual Reporting

It will be essential that on-the-ground impacts of the Unified Stormwater Rule are monitored and validated incrementally over time to ensure long-term effectiveness.

While we acknowledge that on-the-ground tracking of sanitary and stormwater flows for every covered development site is not realistic, we accept modeling of projected sanitary and stormwater flows and CSO reduction for redevelopment sites as a sufficient form of monitoring.

Under the new rule, we urge that DEP provide an annual summary of proposed sanitary discharge, proposed development site storm flow, allowable flow from the site and/or the stormwater release rate by combined sewer watershed. Additionally, for applicant sites triggering the 20,000 square foot threshold, DEP must report on overall CSO reduction volume as a result of practices implemented under the new rule as part of the annual Green Infrastructure Report.