



November 23, 2020

Stephanie Moura  
Director, Division of Wetlands and Waterways  
Massachusetts Department of Environmental Protection  
One Winter Street  
Boston, MA 02108

**Re: Massachusetts Department of Environmental Protection's Proposed Changes to Stormwater Handbook; Stormwater Advisory Committee**

Dear Director Moura,

NAIOP Massachusetts, The Commercial Real Estate Development Association, **appreciates the opportunity to provide additional comments on the Massachusetts Department of Environmental Protection's (MassDEP) proposed changes to the Stormwater Handbook. Thank you for allowing NAIOP representatives to be a part of the Advisory Committee.**

NAIOP supports MassDEP's goal of protecting the wetland and water resources of the Commonwealth and understands that MassDEP is taking steps to align the MassDEP Wetlands Protection Act (WPA) Stormwater Management Standards with the post-construction stormwater rules in the 2016 General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in Massachusetts (the "MS4 Permit") and to address climate resilience implications through updates to precipitation projections for stormwater management.

Based on presentations to date, NAIOP respectfully submits the below comments and concerns with the changes as proposed. NAIOP understands that MassDEP will be reviewing the collective comments prior to proposing regulatory changes and Handbook changes for public comment.

## **I. General Comments**

### **a. Need for alignment of MS4 Requirements**

While MassDEP had indicated that the proposed changes are meant to align with post-construction treatment requirements in the MS4 Permit, the current proposed changes are more stringent than the MS4 Permit requirements. If Towns enact the stricter MassDEP rules for only Wetland Protection Act jurisdiction, permittees would have to navigate different rules for each jurisdiction, as opposed to having one set of design requirements across the state, likely causing confusion for designers, owners and regulators. **NAIOP strongly recommends that MassDEP align their changes with the MS4 post-construction requirements.**

### **b. Timeline Concerns for Municipal Implementation**

MassDEP has noted an overall goal of enabling MS4 communities to adopt or reference the Stormwater Handbook in their local bylaws to fulfill the Post Construction Stormwater Management obligations of the MS4 permit. To achieve this goal, MassDEP has expressed

its desire to promulgate the final changes by Spring 2021. With the introduction of more stringent requirements that have yet to be peer reviewed and the impact of the pandemic, NAIOP is concerned that the schedule for release of the Massachusetts Stormwater Handbook and the corresponding MS4 deadline of July 1, 2021 for the promulgation of local bylaws is unworkable.

If the MassDEP Stormwater Handbook update is not finalized in time for MS4 communities to incorporate into their by-law changes, which is unlikely due to the schedule of town meetings and public notice, MS4 communities will have to develop their own rules and regulations to align with the MS4 permit. These new bylaws may not ultimately align with MassDEP, thereby making an additional set of rules that developers will need to navigate. **For this reason, NAIOP again recommends that MassDEP align their changes with the MS4 post-construction requirements for clarity. This should result in a more expedient and clear process.**

**c. Request for Guidance on Maintenance and Improvement Projects**

NAIOP requests that MassDEP develop and promulgate guidance on projects that are considered purely maintenance or improvement of existing roadways (i.e., widening less than a single lane, adding shoulders, correcting substandard intersections, improving existing drainage systems, and repaving projects). Based on the existing Massachusetts Stormwater Handbook, these projects are considered redevelopment and required to meet the structural requirements of Standard 4 to the maximum extent practicable. Based on the MS4 Permit, these projects, which disturb more than 1-acre or are part of a common plan to disturb more than an acre, need to improve existing conditions unless infeasible and are exempt from Part 2.3.6.a.ii.4. which is focused on pollutant removal (and is similar in purpose to Standard 4).

**NAIOP urges MassDEP to confirm that these types of projects will be regulated in a consistent fashion with the MS4 Permit, and that new sidewalks, footpaths, bike travel lanes and paths, and similar access ways for pedestrian and/or nonmotorized vehicles should follow the Stormwater Standards to the maximum extent practicable.**

**II. Comments on Specific Standards**

**a. Standard 2 – Peak Rate Control**

NAIOP believes that the NOAA 14+ approach should be peer reviewed to fully vet the approach and demonstrate that it is supported by the climate change community for purposes of using it for stormwater design. **NAIOP asks that an outside peer reviewer assess the impact of these changes on stormwater system sizing and other related impacts.**

**b. Standard 3 – Recharge**

Currently, MassDEP's proposal for Standard 3 does not align with the MS4 Permit treatment requirements. MassDEP is proposing to require 1-inch of recharge as part of the Standard 3 changes and explained that this change is based on alignment with the MS4 Permit. The MS4 Permit allows for treatment through either recharge or retainment. Recharge replenishes groundwater and improves baseflow while retention holds back stormwater from discharging off-site and may include recharge but also can be met through evaporation, transpiration, and

water reuse. The MS4 Permit provides flexibility in meeting post-construction requirements by providing the 1-inch of retainment as an option and allows developers to use the EPA curves to meet the treatment requirements in lieu of demonstrating retainment. By providing options, designers are allowed more flexibility to provide the correct type of treatment for the site and to maximize the areas providing treatment.

Requiring 1-inch of recharge across all soil types (excluding HSG D soils) will require large and costly structural BMPs, the opposite of what low impact development promotes. The soil infiltration rates greatly impact the quantity of annual recharge at a site (the goal) and the ability of the BMP to provide recharge (the mitigation measure), therefore, requirements should be aligned with the soil types of the site and not be universal.

We are concerned about the ability for certain sites to meet the proposed revisions, such as urban projects and those with HSG C soils. The current Stormwater Handbook cautions against the high failure rates of infiltrative BMPs due to unfavorable site conditions or pretreatment. There is concern that projects will be forced to consider subprime locations, increasing the probability of BMP failure. This requirement will likely require structural BMPs with very large footprints, or multiple smaller BMPs, to provide enough surface area for stormwater to infiltrate within 72 hours. Stormwater basins will require ponding the recharge volume to greater than 1-inch and therefore, the ability to fully drawdown the basin in 72 hours as required will depend on the BMP infiltration surface area in addition to the soil's infiltration rate.

The proposed MassDEP requirement of 1-inch of recharge also appears excessive given the distribution of small storms over the course of a year. If the goal of Standard 3 is to promote recharge to groundwater on an annual basis, the BMPs should be designed to provide a desired recharge volume on an annual basis and requirements should be based on achieving those goals.

Additionally, MassDEP stated that the recharge volume needed to approximate pre-development recharge equals 70% of the annual precipitation but it is unclear how this statement or percentage was determined without a detailed review of supporting data and analysis. The supporting analysis presented appears to be based on climate change and increased precipitation rates, not on attempting to achieve alignment with the MS4. NAIOP requests that the research and assumptions made to support the proposed revisions to Standard 3 be peer reviewed.

**NAIOP strongly recommends that the research and assumptions made to support the proposed revisions to Standard 3 should be peer reviewed. NAIOP also hopes that MassDEP will maintain the approach of requiring recharge depth based on different soil types, instead of requiring 1-inch of recharge across the board and should maintain the maximum extent practicable standard for C and D soils.**

**c. Standard 4 – Water Quality Treatment**

The MS4 permit provides flexibility in meeting post-construction water quality requirements by providing an option of 1-inch of retainment, utilizing the EPA curves to meet the

treatment requirements in lieu of demonstrating retainment or a combination of the methodologies. By providing options, designers are allowed more flexibility to provide the right type of treatment for the site and to maximize the areas providing treatment.

For new development projects, the current proposed changes to Standard 3 essentially negate the requirement for Standard 4 since by meeting Standard 3 and providing 1-inch of recharge for the site, Standard 4 is met. Therefore, Standard 4 has no purpose except when a site has HSG D soils, has bedrock at or near the surface high groundwater elevation, or is a hazardous and solid waste site where recharge is required to maximum extent practicable. For these projects, the proposed MassDEP methodology restricts owner's and designer's options by limiting treatment options to MassDEP-approved BMPs and prohibiting the use of the EPA BMP Performance Curves for sizing treatment practices. This ignores the importance of using the latest research and findings in the form of the Performance Curves to optimize BMP sizing and calculate pollutant reduction.

The focus on recharge will also place significant restrictions on developments where recharge may not be feasible due to issues unrelated to C/D soils, shallow bedrock, and groundwater such as recharge setback requirements to wetlands/slopes/property boundaries and discharges to critical areas.

**NAIOP recommends that MassDEP align the treatment standards with the MS4 for new and redevelopment projects and allow use of the EPA BMP Performance Curves for demonstration of compliance to provide owners and designers with options and flexibility to develop optimum stormwater treatment solutions.**

**d. Standard 7 - Redevelopment**

Currently, MassDEP is not proposing any changes to the definitions of new development and redevelopment from the existing MassDEP definitions, whereas the MS4 Permit includes new definitions, therefore, again developing disparate paths for permittees as illustrated in MassDEP slides.

By example, MassDEP's proposed revisions to Standard 7 prohibit off-site mitigation to meet Standards 3 and 4 for LUHPPLs, discharges to Critical Areas or to receiving waters with TMDLs. This approach does not align with the MS4 Permit which allows off-site mitigation to meet post-construction treatment requirements and requires that TMDLs be met on a watershed scale (not project scale). The MS4 Permit promotes treatment at the watershed scale and allowing off-site mitigation within the same HUC 12 watershed which is important to allow for the greatest amount of treatment within the watershed. It should be noted that most of Massachusetts is covered by a TMDL (including out-of-state TMDLs) and most projects will meet the redevelopment definition and not allowing off-site mitigation for projects discharging to receiving waters with a TMDL would have a significant impact on many projects.

Second, NAIOP is concerned that the elimination of MEP for Standard 4 for many development scenarios combined with raising the treatment criteria will discourage

redevelopment, which often includes many important water quality improvements, even if they do not meet the proposed high bar.

Further, MassDEP is proposing to update the definition of impervious area to align with the MS4 Permit, which is ideal. However, MassDEP's current proposed language, although similar, is not exactly the same as the EPA's definition. If finalized and promulgated, this would cause confusion and unaligned application of standards. For example, required TSS and P reduction will be greater to meet MassDEP standards than would be required for MS4.

**NAIOP urges MassDEP to align the definitions of new development and redevelopment with the MS4 Permit; allow off-site mitigation to provide treatment for projects that discharge to receiving waters with TMDLs; and use the language provided in the MS4 Permit for definition of impervious area.**

**e. Standard 11 – Supporting TMDLs**

MassDEP presented the concept of the new Standard 11 which would address TMDLs but did not provide specifics, therefore, we do not have detailed comments at this time. The MS4 Permit's approach to TMDL compliance is based on a watershed scale, not a project scale. Therefore, to be consistent with the MS4 Permit (Appendices F and H of the MS4 Permit) we recommend that project-specific TMDL requirements do not apply and instead that project proponents demonstrate how the TMDL is being met on a whole by the associated MS4 and its BMPs and how the project factors into TMDL compliance for the permittee.

**NAIOP recommends that MassDEP use the same TMDL and impaired water requirements as Appendices F and H of the MS4 Permit to be consistent during development of the details of Standard 11.**

**f. Precipitation Projections**

NAIOP is also aware that MassDEP is proposing updating precipitation projections required during analyses. As we discussed in Standard 2 discussion, NAIOP supports the incorporation of the impacts of climate change into the hydrologic and hydraulic analyses. **However, NAIOP strongly recommends that the NOAA 14+ approach should be peer reviewed to fully vet the approach.**

**g. Bordering and Isolated Land Subject to Flooding Delineation**

As MassDEP is well aware, the delineation of certain resource areas, Bordering Land Subject to Flooding (BLSF) and Isolated Land Subject to Flooding (ILSF) is dependent on the precipitation values used in hydrologic models. NAIOP suggests that MassDEP review the potential impact that NOAA 14+ may have on jurisdictional area delineations and design approaches for hydraulically dependent structures. The proposed standard should be consistent with standard analysis methodologies (i.e., there should be no difference how the BLSF is calculated between FEMA and MassDEP). **NAIOP recommends that MassDEP review the potential impact that NOAA 14+ may have on jurisdictional area delineations and design approaches for hydraulically dependent structures.**

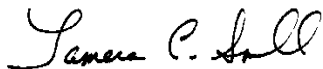
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Again, NAIOP sincerely appreciates the opportunity to comment on the proposed changes and looks forward to continuing to work together as MassDEP works on the updates to the regulations and the Massachusetts Stormwater Handbook.

NAIOP Massachusetts, The Commercial Real Estate Development Association, represents the interests of companies involved with the development, ownership, management, and financing of office, research and development, industrial, mixed use, multi-family, retail, and institutional space throughout the Commonwealth.

Thank you for your consideration of our comments. We look forward to our discussion of these comments on November 30. Please contact me if you have any questions in advance of our meeting.

Sincerely,



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Chief Executive Officer  
NAIOP Massachusetts, The Commercial Real Estate Development Association

cc: Martin Suuberg, Commissioner MassDEP  
Lealdon Langley, Director, MassDEP Division of Watershed Management  
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