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COMMENTS

Comments on Proposed Stormwater Management Rule

Submitted to New Jersey Department of Environmental Protection

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New Jersey Future submits the following comments on the New Jersey Department of Environmental Protection's (NJDEP) proposed amendments to the state's stormwater management rules (NJAC 7:8), published in the Dec. 3, 2018, New Jersey Register.

Founded in 1987, New Jersey Future is a nonprofit, nonpartisan organization that promotes sensible growth, redevelopment and infrastructure investments to foster vibrant cities and towns, protect natural lands and waterways, enhance transportation choices, provide access to safe, affordable and aging-friendly neighborhoods and fuel a strong economy. Prerequisite to these broad goals are strong and resilient communities that have clean water and are not burdened by localized flooding.

We support clear and predictable state-level rules that facilitate responsible and affordable development in those communities and promote sustainable infrastructure solutions that deliver multiple benefits. Improving and clarifying the state's stormwater management rules (NJAC 7:8) is critical to ensuring that new development and redevelopment projects will achieve these goals.

Extreme weather and overall rainfall levels are on the rise. Stormwater runoff flowing over roofs, parking lots, lawns, sidewalks and streets collects contaminants like fertilizer, pesticides, animal waste and oils and causes more water pollution than any other source. The state's stormwater management rules are an essential regulatory tool for reducing runoff pollution, and have heretofore fallen short. In fact, the current stormwater management rule presents obstacles to the use of green stormwater infrastructure, a powerful stormwater management tool that uses or mimics the natural water cycle to manage stormwater close to its source.

The proposed rule amendments are an important first step forward. They remove obstacles to green infrastructure and in fact require the use of green infrastructure to meet the rule's three minimum design and performance standards (stormwater runoff quality and quantity, and groundwater recharge). Thus, they will result in stormwater management systems that rely much less on "gray" infrastructure (pipes) that can contribute to pollution and flooding, instead featuring green infrastructure practices like bioretention, permeable pavements, cisterns, green roofs and other techniques that slow or eliminate runoff, taking pressure off of aging pipes and resulting in cleaner water and fewer flood events. The new green infrastructure requirements also will spark interest among many engineers in honing their green infrastructure design skills through training and education. And they will make the development review process more objective and therefore more predictable for property owners.

The new green infrastructure requirement gives rise to associated improvements, including:

- A clear definition of green infrastructure;
- Updates to the Best Management Practices (BMP) Manual to provide appropriate credit for stormwater infiltration, meaning green infrastructure techniques like rain gardens, bioretention basins and infiltration basins are presumed to infiltrate and function properly, making it unnecessary to design redundant "gray infrastructure" systems;
- Clear tables that identify which green infrastructure BMPs (e.g., rain garden/bioretention system, permeable pavements, green roof, cistern, grass swale) meet each of the three minimum design and performance standards.

The proposal can be made even more clear and effective by addressing the following recommendations:

1. **Allow for innovation.** Creative design alternatives should be allowed, as science is ever-evolving. We recommend a framework or process for design flexibility in order to allow for changing technology and innovative stormwater management. The following suggested language, based on language in Philadelphia Water Department regulations, could appear as a footnote to Tables 5-1, 5-2 and 5-3 in Subchapter 5 of the rule:
    - BMPs contained in these tables are not exclusive. NJDEP encourages the development of innovative practices that meet the intent of the stormwater rules. NJDEP recognizes that new stormwater management systems and products are being developed continuously and supports innovative approaches to management. Design professionals are encouraged to request a pre-application meeting with NJDEP Division of Water Quality early in the approval process to discuss BMP design requirements or if the designer wishes to use new or non-standardized technologies to meet the requirements of NJAC. 7:8.

2. **Protect against "technically impracticable" loophole.** As it currently reads, the "technically impracticable" clause that allows a property owner to request a variance when the rule's standards cannot be met is not specific enough and therefore could serve as a loophole for property owners to bypass the use of green infrastructure. To mitigate this potential loophole, a substantial analysis, including narrative, calculations and supporting documentation to support the finding of technical impracticability, should be required. A prescribed hierarchy of desired approaches may be useful to guide this process. This is an approach used successfully in Philadelphia.

3. **Do not exclude sidewalks and rooftops.** The proposed rule excludes sidewalks and rooftops from the requirement to treat runoff for water quality. Sidewalks and rooftops are significant contributors of pollutants. Given New Jersey's problem with water pollution, New Jersey Future agrees with many fellow stakeholders that more attention, not less, should be focused on water quality requirements. The exclusion of sidewalks and rooftops from water quality requirements should be removed from the proposed rule, unless such removal would trigger re-proposal of the entire rule amendment. If removing the sidewalks and rooftops exclusion would prevent or substantially delay implementation of the rest of the proposed rule amendments, New Jersey Future would instead push in the Phase 2 stakeholder process to extend the stormwater quality standard requirements to sidewalks and rooftops.

4. **Shrink maximum drainage area for small scale BMPs.** The 2.5-acre maximum drainage area for small-scale BMPs such as grass swales, rain gardens, cisterns, green roofs and small-scale sand filters is too large. New Jersey Future recommends a maximum drainage area of 1.5 acres for small-scale BMPs. Larger drainage areas encourage fewer and larger BMPs, while smaller drainage areas contribute to multiple, small BMPs that tend to function better than larger ones, and that distribute the water around the site and mimic natural hydrology.

5. **Allow for slow-release in certain challenging circumstances.** In urban, mostly built-out places with combined sewer systems or in areas where soils are proven to be particularly challenging, infiltration is not always possible or advisable. The rules should include guidance on slow-release for use in these areas. An approach used successfully in Philadelphia is a slow-release rate on-site, not to exceed 0.05 cubic feet per second per acre of connected impervious surface when routing the water quality design storm. NJDEP might consider the following:
    - Where infiltration is not feasible and the project is located in a combined sewer area:
        - Design BMP(s) to route, through an acceptable pollutant-reducing practice, 100 percent of the water quality volume that is not infiltrated; and
        - Design BMP(s) to ensure a slow release rate on-site that does not exceed 0.05 cubic feet per second (cfs) per acre of impervious cover.

6. **Acknowledge evapotranspiration.** The definition of green infrastructure should make specific reference to evapotranspiration, which is a key factor in the stormwater management benefit of vegetation, especially trees, which cool and clean the air through evapotranspiration. New Jersey Future supports the language recommended by Pinelands Preservation Alliance: "...2. Treating stormwater runoff through filtration ***and evapotranspiration*** by vegetation and filtration by soils…"

7. **Promote nonstructural strategies.** Finally, we urge NJDEP to refer specifically to the importance of nonstructural strategies in the revised model stormwater management plan and model stormwater ordinance that will be developed to reflect the amended rules. Green infrastructure and nonstructural strategies complement each other. Municipalities should do all they can to prevent, for example, the clearing of woodlands, which are highly valuable for stormwater management, in order to accommodate constructed stormwater systems.

New Jersey Future thanks the NJDEP for facilitating an effective and inclusive process to amend the stormwater management rules to serve the people and environment of our state more effectively. The proposed amendments are an important first step toward protecting our state's precious waterways and communities. We look forward to working with the NJDEP and fellow stakeholders to continue to improve the rules through future amendments, and we urge DEP to prioritize the Phase 2 stormwater rule amendment stakeholder process.

Please do not hesitate to contact Louise Wilson, Director, Green Infrastructure at New Jersey Future (LWilson@NJFuture.org) with follow-up questions or for further information.