

# NJDEP Stakeholder Meeting: Stormwater Management Rules

October 30, 2017

# Goals of the Proposal

1. Consistency
2. Predictability
3. Water Quality Improvements

# Existing Rule Layout

## SUBCHAPTER 5. DESIGN AND PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT MEASURES

7:8-5.1 Scope

7:8-5.2 Stormwater management measures for major development

7:8-5.3 Nonstructural stormwater management strategies

7:8-5.4 Erosion control, groundwater recharge and runoff quantity standards

7:8-5.5 Stormwater runoff quality standards

7:8-5.6 Calculation of stormwater runoff and groundwater recharge

7:8-5.7 Standards for structural stormwater management measures

7:8-5.8 Maintenance requirements

7:8-5.9 Sources for technical guidance

# Rule Layout Re-arrangement

## SUBCHAPTER 5. DESIGN AND PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT MEASURES

7:8-5.1 Scope

7:8-5.2 Stormwater management measures for major development

7:8-5.3 ~~Nonstructural stormwater management strategies~~ GI

7:8-5.4 Erosion control, groundwater recharge and runoff quantity standards

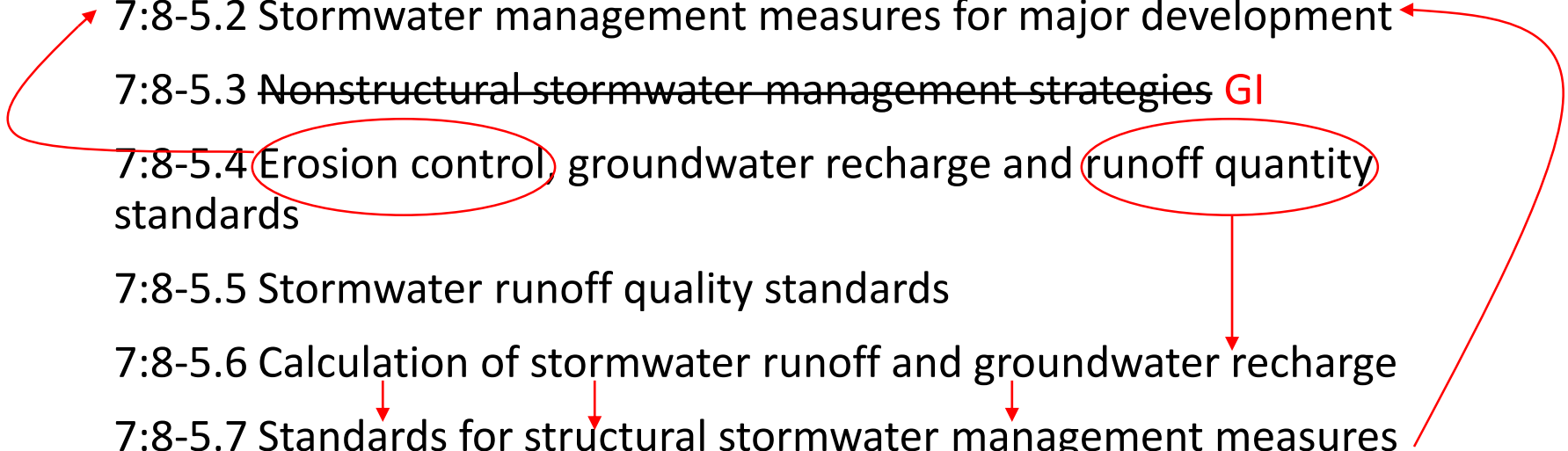
7:8-5.5 Stormwater runoff quality standards

7:8-5.6 Calculation of stormwater runoff and groundwater recharge

7:8-5.7 Standards for structural stormwater management measures

7:8-5.8 Maintenance requirements

7:8-5.9 Sources for technical guidance



# Proposed Rule Layout

## SUBCHAPTER 5. DESIGN AND PERFORMANCE STANDARDS FOR STORMWATER MANAGEMENT MEASURES

7:8-5.1 Scope

7:8-5.2 Stormwater management measures for major development

7:8-5.3 Green infrastructure

7:8-5.4 Groundwater recharge standards

7:8-5.5 Stormwater runoff quality standards

7:8-5.6 Stormwater runoff quantity standards

7:8-5.7 Calculation of stormwater runoff and groundwater recharge

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# Green Infrastructure Definition

A stormwater management measure that either treats stormwater runoff through infiltration into subsoil, treatment by vegetation or soil, or storage for reuse.

# Green Infrastructure Standard

- GI BMPs must be used to satisfy recharge, quantity, and quality
- 3 Tables identifying the performance of each BMP in meeting the 3 standards
  - Water Quality & Recharge – BMPs in Table 1
  - Quantity – BMPs in Table 1 or Table 2
  - If received a variance – BMPs in Table 1, Table 2, or Table 3
- Maintain existing ability to propose an alternative stormwater design. Alternative design must meet GI definition and have a drainage area of less than 1 acre to meet GI standard.

**Table 1**

Best Management Practice	Quality TSS removal rate (percent)	Quantity	Recharge	Minimum separation from seasonal high water table (feet)
<b>Bioretention Systems</b>	80 or 90	Yes	Yes	2
			No	1
<b>Cisterns</b>	0	Yes	No	-
<b>Dry Wells</b>	0	No	Yes	2
<b>Grass Swales</b>	50 or less	No	No	2
<b>Green Roofs</b>	0	Yes	No	-
<b>Infiltration Basins</b>	80	Yes	Yes	2
<b>Manufactured Treatment Device</b>	50 or 80	No	No	Dependent upon the device
<b>Pervious Paving Systems</b>	80	Yes	Yes	2
			No	1
<b>Sand Filters</b>	80	Yes	Yes	2
<b>Vegetative Filter Strips</b>	60-80	No	No	-

**Table 1 BMPs shall be used for recharge, quantity, and quality  
1 acre drainage area limitation: bioretention basins, dry wells, infiltration basins, manufactured  
treatment devices, and sand filters.**



**Table 2**

Best Management Practice	Quality TSS removal rate (percent)	Quantity	Recharge	Minimum separation from seasonal high water table (feet)
<b>Bioretention Systems</b>	80 or 90	Yes	Yes	2
			No	1
<b>Infiltration Basins</b>	80	Yes	Yes	2
<b>Standard Constructed Wetlands</b>	90	Yes	No	N/A
<b>Wet Ponds</b>	50-90	Yes	No	N/A

**Table 2 BMPs may only be used for quantity**

**Table 3**

<b>Best Management Practice</b>	<b>Quality TSS removal rate (percent)</b>	<b>Quantity</b>	<b>Recharge</b>	<b>Minimum separation from seasonal high water table (feet)</b>
<b>Blue Roofs</b>	0	Yes	No	N/A
<b>Extended Detention Basins</b>	40-60	Yes	No	1
<b>Manufactured Treatment Device</b>	50 or 80	No	No	Dependent upon the device
<b>Sand Filters</b>	80	Yes	No	1
<b>Subsurface Gravel Wetlands</b>	90	No	No	1
<b>Wet ponds</b>	50-90	Yes	No	N/A

**Table 3 BMPs may only be used if a variance is granted**

# Deed Notice

- Remove current rule requirement for conservation restriction, or equivalent, for non structural strategies (old N.J.A.C. 7:8-5.3(c))
- Maintain existing requirement that maintenance plans be recorded on deed (N.J.A.C. 7:8-5.8(d))
- Proposal to additionally require deed notice to include a description and location information for all BMPs.
- Proposal to provide a pathway for property owner to alter or replace a BMP provided review agency ensures quantity, quality, and recharge will be maintained.

# Existing Variance

- Municipality may approve a variance or exemption if:
  - Municipal Stormwater Management Plan contains a mitigation plan:
    - that identifies what measures are necessary to offset the deficit created by granting the variance
    - ensures mitigation happens in the same drainage area and for the performance standard for which variance is granted
  - Municipality submits a written report to county review agency and DEP describing the variance or exemption and the required mitigation

# Proposed Variance

- Municipality may approve a variance if:
- Applicant demonstrates:
  - technically impracticable to meet any one or more of the design and performance standards on site
    - Technical impracticable exists only when the standard can not be met for engineering, environmental, or safety reasons
  - That the proposed design achieves maximum compliance with the design and performance standard
- Approval of variance applies to individual drainage area and design and performance standard

# Proposed Variance - Mitigation

- Mitigation:
  - selected from municipal mitigation plan or proposed by applicant, provided it meets the criteria within the municipal mitigation plan
  - be approved no later than preliminary or final site plan approval of the major development
  - be located in the same HUC 14 as the portion of the major development that was granted the variance
  - be constructed prior to or concurrent with the major development
  - comply with the green infrastructure standards at N.J.A.C. 7:8-5.3
  - Applicant shall be responsible for maintenance, maintenance responsibility may only be transferred to a public agency, with a written agreement submitted to the review agency
- Approved variance must be submitted to county review agency and DEP within 30 days of approval

# Proposed Variance - Mitigation

- If variance is from recharge
  - Mitigation project must make up recharge deficit
- If variance is from quantity
  - H+H analysis to demonstrate no adverse impact
  - Mitigation project must discharge to same watercourse and be located upstream of major development
  - Mitigation project must provide peak flowrate attenuation for an area greater in size and/or imperviousness to the area granted variance
- If variance is from quality
  - Mitigation project must make up the TSS removal deficit
  - Mitigation project must remove nutrients to max. extent feasible

# Proposed Variance - Mitigation

- If variance is from green infrastructure
  - Mitigation project must provide green infrastructure BMPs to manage an equivalent or greater area and amount of impervious surface than the area of major development granted the variance
  - Vegetative filter strips and grass swales excluded as mitigation measures
  - GI BMPs used for mitigation must be sized to manage the Water Quality Design Storm (at a minimum)
  - GI BMPs used for mitigation are subject to a 1 acre drainage area limitation (excluding pervious paving systems, green roofs, and cisterns)



# Effective Date

The proposal will include a 1 year delayed effective date in which the current rules will apply

- 1 year delay is same timeframe municipalities have to update ordinance in accordance with MS4 permit
- Will prevent projects in the pipeline from needing to be redesigned
- Will minimize number of projects subject to differing stormwater standards from various agencies

# Water Quality – Motor Vehicle Surface

- The water quality standard will apply to motor vehicle surface instead of impervious surface
  - Rule text will not require roofs or sidewalks to be treated – consistent with current implementation
  - Will require pervious motor vehicle surfaces to be treated – consistent with scientific studies
- Include in definition of major development

# Clarification to Applicability

- Add definition of “new motor vehicle surface”
- Add definition of “new impervious surface”
- Change definition of major development to be 1 acre of disturbance, or  $\frac{1}{4}$  acre of new impervious surface, or  $\frac{1}{4}$  acre of new motor vehicle surface
- Definitions of new motor vehicle surface and new impervious surface will include FAQ 10.2 (newly collected impervious surface and changes to existing drainage systems count as “new”)

# Clarification to Applicability

- Require quantity, quality, and groundwater recharge to be met in each drainage area on-site (unless they converge before leaving the property)
- Move mounding analysis requirement from recharge standard to apply to all infiltration BMPs

# CSO Related Changes

- Clarify that water quality treatment is required for discharges into combined sewer systems (refer to existing N.J.A.C. 7:8-5.5(a))
- Clarify that water quantity control is required in tidal areas except discharges directly into lower reach of major tidal waterbodies (existing N.J.A.C. 7:8-5.4(a)3iv to be modified – moved to N.J.A.C. 7:8-5.6(b)4)
- Create the option for a community basin, which will allow several properties in a CSS community to use a single large basin for quantity control
  - Other standards must still be met on-site (including GI)