Pinelands Preservation Alliance, American Littoral Society, Clean Ocean Action, New Jersey Environmental Federation, New Jersey Conservation Foundation, Princeton Hydro, Delaware Riverkeeper Network, Association of New Jersey Environmental Commissions, NJ Sierra Club, Craft's Creek Springhill Brook Watershed Association, Environment New Jersey, Highlands Coalition, Stony Brook-Millstone Watershed Association, New Jersey Environmental Lobby

February 28, 2012

Commissioner Robert Martin
NJ Department of Environmental Protection
401 E. State St., 7th Floor, East Wing
P.O. Box 402
Trenton, NJ 08625-0402

Re: N.J.A.C. 7:8 Stormwater Management Rules

Dear Commissioner Martin:

The undersigned organizations have worked together to develop a recommended list of rule changes to N.J.A.C. 7:8 – Stormwater Management. Improper management and treatment of stormwater pollutants continue to impair the water quality of New Jersey's waterways as a result of major flaws in the stormwater rules and the lack of NJDEP (Department) and municipal enforcement of the rules.

Although our recommended list of rule changes include many suggestions for improvement, our groups are concerned about four major flaws within the current rules:

1. Nutrients are not required to be removed from stormwater.
2. Redevelopment is not included as part of major development activities.
3. Non-structural stormwater management techniques are neither required nor enforced.
4. Maintenance and stormwater management plans are not well enforced by the Department, municipality or any other governing entity, and no regional stormwater management plans have been implemented despite the fact that plans have been developed.

We have included suggestions for addressing these major flaws in the attached document. Many of our groups participated in the stormwater stakeholder meetings held last spring. We raised concerns about these flaws both at the meetings and in writing. Although we are pleased that the Department has moved forward with some efforts to develop and evaluate nutrient removal best management practices, we remain unsatisfied with the process and substance of this stakeholder process as well as the transparency of the Department's goals and efforts on stormwater especially as it relates to the problems in Barnegat Bay and elsewhere.

The Department has the opportunity under its existing authority to ensure proper stormwater management by enforcing the current regulations until modifications can be made. This would include reviewing and implementing regional stormwater management plans, requiring periodic review of municipal plans, randomly auditing these plans and inspecting non-structural and

structural stormwater management designs/devices, and requiring restoration or revoking NJPDES permits for those that do not meet the requirements of the proposed plans.

We urge the Department to correct the flaws in the existing rules and within the Department's operations for enforcement. We plan to share these comments at the stakeholder meeting on February 29th, and feel that it is necessary to submit detailed rule recommendations with protection of the environment at the forefront due to the lack of consideration for our comments and concerns presented throughout the stakeholder process.

Please contact Jaclyn Rhoads at PPA with any questions or comments – 609-859-8860 ext. 18 or Jaclyn@pinelandsalliance.org.

Sincerely,

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Underline is new material, [material to be removed], and *Italic* are general comments

***Stormwater rules should require the use of new, updated rainfall data and require engineers to participate in continuing education to retain an engineering license.***

**7:8-1.2 Definitions**: Revised impervious cover definition – to use CAFRA's definition and include redevelopment and rehabilitation definitions (adapted from NJ State Development and Redevelopment Act)

"Impervious cover" means any structure, surface, or improvement that reduces and/or prevents absorption of stormwater into land. Paver blocks, gravel, crushed stone, crushed shell, elevated structures (including boardwalks), and other similar structures, surfaces, or improvements are considered impervious cover.

"Redevelopment" means rehabilitation of any structure or improvement.

"Rehabilitation" means an undertaking, by means of extensive repair, reconstruction or renovation of existing structures, with or without the introduction of new construction or the enlargement of existing structures.

**7:8-1.6 Applicability to Major Development**

"(a) Except as provided in (b) below all major development and redevelopment shall comply with the requirements of this chapter."

**7:8-3.3 Regional stormwater management plan and elements**

(a) A regional stormwater management plan shall be required whenever a water body is listed on the 303(d) list or Integrated Report Sublist 4 for nitrogen, phosphorous, or pathogens (fecal indicator bacteria) and such water body crosses two or more municipal boundaries.

**7:8-4.2 Municipal stormwater management plan and elements**

(a)……For purposes of this subchapter, major development is limited to projects that ultimately disturb one quarter of an acre of land. (Recommended by Rutgers Co-operative Extension)

11. In order to grant a variance or exemption from the design and performance standards in N.J.A.C. 7:8-5, include a mitigation plan that identifies what measures are necessary to offset the

deficit created by granting the variance or exemption. The mitigation plan shall ensure that mitigation is completed with the drainage area and for the performance standard for which the

variance or exemption was granted. All such mitigation plans must be reviewed and approved by the regional planning agency of said area as well as NJ DEP;

14. Require the Municipal Stormwater Regulations Program Annual Report and Certification to be signed by an elected official, stormwater manager and the chair of each municipal land use body certifying that each is responsible for upholding all municipal permit requirements.

**7:8-5.2 Stormwater management measures for major development**

[(e) A waiver from strict compliance from the groundwater recharge, stormwater runoff… 1 – 4]

**7:8-5.3 Nonstructural stormwater management strategies**

(a) Stormwater standards in N.J.A.C. 7:8-5.4 and 5.5 shall be met by incorporating all of the nine nonstructural stormwater management strategies at N.J.A.C. 7:8 – 5.3 into the design……[if the applicant contends that it is not feasible for engineering, environmental, or safety reasons to incorporate any non-structural stormwater management strategies identified in (b) below into the design of a particular project, the applicant shall identify the strategy and provide a basis for the contention.]

(b) 2. Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces – show a minimum of 25% disconnection.

6. Restore compacted soils in a manner that is consistent with native flora and soil types.

(e) At least 50% of planning board members shall be trained on LID techniques and engineering plan review every two years.

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

2. i. [ either: (1) demonstrate through hydrologic and hydraulic analysis that the site and its stormwater management measures maintain 100 percent of the average annual pre-construction groundwater recharge volume for the site; or]

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3. In order to control stormwater runoff quantity impacts, the design engineer shall, using the assumptions and factors for stormwater runoff calculations at N.J.A.C. 7:8-5.6, complete [one] all of the following:

3. i and iii remain the same.

3. ii. Demonstrate through hydrologic and hydraulic analysis that [there is no increase as compared to the pre-construction condition, in the peak runoff rates of stormwater leave the site for the two, 10, and 100-year storm events and] that the increase volume or change in timing of stormwater runoff will not increase flood damage at or downstream of the site. This analysis shall include the analysis of impacts of existing land uses and projected land uses assuming full development under existing zoning and land use ordinances in the drainage area.

[3. (iv) In tidal flood hazard areas, …]

*Groundwater recharge can only truly be achieved if a site is viewed and managed holistically, instead of through BMP performance specific standards. For example, while recharge basins are designed to offset the deficit from impervious cover, the installation of stormwater, sanitary, electric and other subsurface utilities may intercept groundwater, discharge the water prematurely during the year to surface waters, and negate the benefit or offset of recharge. It is recommended that the entire stormwater system as well as other subsurface utilities, including drainage piping, sanitary and gas, electric, etc. be equipped with water tight gaskets on piping, utilize backfill that matches surrounding native soils as close as possible, be inspected and repaired on a regular basis, and be installed for groundwater avoidance (elevating utilities above the seasonal high groundwater). Groundwater interception has been witnessed on a number of projects and creates a new point source discharge or increases the burden on and discharge from wastewater treatment facilities.*

**7:8-5.5 Stormwater runoff quality standards**

(e) Stormwater management measures shall also be designed to reduce [,to the maximum extent feasible,] the post-construction nutrient load of the anticipated load from the developed site by in stormwater runoff generated from the water quality design storm. In achieving reduction of nutrients [to the maximum extent feasible], the design of the site shall include nonstructural strategies and structural measures that optimize nutrient removal while still achieving the performance standards in N.J.A.C. 7:8-5.4 and 5.5. Loadings reductions will be required under the following conditions:

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1. Remove post-construction nutrient load in freshwater areas by 90%.
2. Remove groundwater post-construction nitrogen load by 90% in Pinelands, Barnegat Bay watershed, SE, and SC waters.

(h) Reduce post-construction loads by 90% for any area within an approved TMDL – stormwater discharges must satisfy requirements of TMDL.

(i) [(h)]3. ii. Stormwater associated with discharges allowed by this paragraph shall achieve 95 percent TSS post construction removal rate and 85% nutrient post construction removal rates;

*A new table on nitrogen and phosphorus removal rates must be added, and Table 2: TSS Removal Rates for BMPs must be updated on the best available science.*

**7:8 – 5.6 Calculation of stormwater runoff and groundwater recharge (**Taken from Pinelands Comprehensive Management Plan)

**(a)**

1. Stormwater runoff shall be calculated using NRCS methodology by separately calculating and then combining the runoff volumes from pervious and directly connected impervious surfaces within each drainage area within the parcel;
2. Calculations of stormwater runoff from unconnected impervious surfaces shall be based, as applicable, upon the Two-Step Method described in the New Jersey Stormwater Best Management Practices Manual; and
3. In calculating stormwater runoff using the NRCS methodology, the appropriate 24-hour rainfall depths as developed for the parcel by the National Oceanic and Atmospheric Administration shall be utilized. Information regarding these rainfall data is available from the National Oceanic and Atmospheric Administration (NOAA) at http://www.hdsc.nws.noaa.gov/hdsc/pfds/index.html.

*This section (or sections 5.4 and 5.5) needs to be amended so that small storms are evaluated and accounted for accurately in quantity and quality runoff calculations.*

**7:8-5.8 Standards for structural stormwater management measures**

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(c) Manufactured treatment devices may be used to meet the requirements of this subchapter, provided that pollutant removal rates, including TSS, oil and grease, nutrients, and pathogens (fecal indicator bacteria), are verified by the New Jersey Corporation for Advanced Technology and certified by the Department.

**7:8-5.8 Maintenance Requirements**

(i) [Nothing in this section shall preclude] The municipality in which the major development is located [from] shall require[ing] the posting of a performance or maintenance guarantee in accordance with N.J.S.A. 40:55D-53.

(j) State inspectors will periodically conduct random post-construction assessments of projects.

**Issue 1: The SWRPA should be a stand alone section in the Rule and it should apply with any major development not just those developments where there is an increase in impervious cover.**

The rationale for requiring a 300 foot buffer for the SWRPA is based not just on TSS removal but for the protection of the functional value and overall condition of the stream as described below in the Technical Manual for FVA: these values are Habitat, Non-Point source, Temperature Modification and channel integrity.

Technical Manual for Special Water Resource Protection Area
FUNCTIONAL VALUE ANALYSIS
January 2, 2007 - Revised January 24, 2008

"The Department's technical manual establishes a two-step process for determining if the functional value and overall condition of the SWRPA are maintained to the maximum extent practicable. Under the first step, there is an assessment of each of the four central functions of a SWRPA based on existing and proposed conditions: Habitat, Nonpoint Source Pollutant Reduction, Temperature Modification and Channel Integrity."

**Issue 2: Runoff from a new development that discharges into an existing storm sewer that connects directly to a C1 stream should require a 300 foot buffer per the SWRPA.**

Below is the pertinent section of the Rule where the issue of stormwater from a new development flowing into an existing storm sewer that goes directly into a C1 stream needs to be addressed. A storm sewer that is directly connected to a C1 stream is effectively acting like a tributary to the stream when it conveys runoff and it should also have a SWRPA. This was discussed at length at the BMP meetings and prior to this meeting DEP personnel were requiring this for approvals. However, at that BMP meeting it was agreed upon that the Rule doesn't really say that (and I agree that it doesn't really say that). However, the Rule should be modified to reflect the need for the 300 foot buffer in this instance.

7:8-5.5 Stormwater runoff quality standards (h) 1. ii. 2.

All stormwater shall be discharged outside of but may flow through the special water resource protection area and shall comply with the Standard For Off-Site Stability in the "Standards for Soil Erosion and Sediment Control in New Jersey," established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq. (See N.J.A.C. 2:90-1.3).