New Jersey's Watershed Rule Comment Letter

August 17, 2007

Gary J. Brower, Esq.
Attn: DEP Docket # 10-07-04/527
Office of Legal Affairs
NJ Department of Environmental Protection
401 East State Street, 4th Floor
P. O. Box 402
Trenton, New Jersey 08625

Re: Rule Proposal Water Quality Management Planning, N.J.A.C. 7:15

Dear Mr. Brower,

Delaware Riverkeeper Network supports the Department's proposed Watershed Rules and considers these regulations to be a long overdue modernization and vast improvement over the existing rule. The Department has well expressed in its rule proposal the rationale and pressing need for revision of the existing rule. We greatly appreciate the efforts of the Department to match in quality and effectiveness New Jersey's watershed planning program with other state and federal environmental programs and laws, making it possible for New Jersey to meet the mandated goals of the Clean Water Act. New Jersey, with this rule proposal, comes farther along towards maintaining and restoring the health of our State's waters and related ecosystems and the life they hold than any other state in the Delaware River Basin. Considering the substantial impairments and pollution problems we as a State and in the Delaware River Watershed face, this is a welcome and urgently needed effort.

There are some policies and rules we do not agree go far enough to be effective and we provide these comments to advocate for our position. We also submit this letter to provide support for the actions proposed by the Department with which we agree.

N.J.A.C. 7:15-1.1(a)1-10 We support coordination with other planning programs and municipal zoning and the withdrawal of sewer service areas where wastewater management plans are not current. We support the inclusion of regional stormwater plans in Water Quality Management Plans (WQMP) and note that funding of these regional plans is a key to the implementation of New Jersey's Stormwater Rule, N.J.A.C. 7:8. *Delaware Riverkeeper Network*

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7:15-1.1(a)1-11 We do not support the assignment of the preparation and update of wastewater management plans (WMP) to County Boards of Chosen Freeholders at this time. Our concern is that many if not most Counties are not prepared, trained or funded to carry out these duties. The Counties are not oriented towards planning on a watershed basis. It should not be assumed that Counties have an inherently regional approach; and it should not be assumed that "regional" perspective is necessarily watershed-based. It is very important that the water quality management plans and wastewater plans are organized and carried out by watersheds as well as dealt with on a regional basis. The Counties' tendency is typically to provide county-wide services such as roads, bridges, and transit, not delve into municipal planning or the regionalization of municipal plans, except where mandated by the state through such programs as the State Development and Redevelopment Plan and the review of municipal stormwater plans. The uneven execution of some Counties' responsibilities in these efforts is evidence that all Counties are not ready for yet another formidable responsibility. Some Counties have even tried to remove their own projects from the WQMP process, claiming the Department's WQMP rules don't have jurisdiction over Counties. The Counties are simply not equipped in expertise or funding to carry out WQMP and WMP planning and their approach is not necessarily protective of watershed quality.

In many cases, municipalities are far ahead of their counties in the quality and timeliness of wastewater planning and the expert guidance they receive through professional planners engaged by the municipalities. The municipality knows best its needs in this regard and should be able to get direct assistance from the Department in both expert advice and funding to prepare and update WMPs. Guidance on developing a regional approach can be provided by the Department on a watershed basis and through funding for regional plans based on watershed delineation rather than political subdivision lines. Instead of giving this duty to the Counties, the Department should establish a similar program to the regional stormwater plan program found in N.J.A.C. 7:8, make it a priority funding element, and encourage municipalities to approach wastewater planning on a watershed basis. The allowance of a municipality to alternatively be assigned this responsibility is not adequate; the duty should go first to the municipality. *Delaware Riverkeeper Network*

7:15-1.1(a)1-12-15 We support the required inclusion of water quality limited segments and the establishment of TMDLs through this rulemaking. We support the consideration of environmentally sensitive areas in the designation of wastewater service areas. *Delaware Riverkeeper Network*

7:15-1.5 We support the definitions being brought into consistency with definitions in other updated Department rules.

We agree with the definition of impervious surface, which is more accurate and descriptive than the definition in N.J.A.C. 7:8 specifically because gravel is correctly included as is the inclusion of any "...material that has made the surface resistant to infiltration by water".

We agree that intermittent streams need to be defined so that they may be protected.

The Landscape Map and Natural Heritage Priority Site definitions allow these valuable tools to become part of the process when WQMP and WMPs are being developed, which we agree is essential.

We support the inclusion of landfill leachate collection systems as possible "point sources" of pollution because DRN is aware of this route of pollution in many such instances.

We support the inclusion of a definition for "reclaimed water for beneficial use" or "RWBR", which encourages the re-use of water that is subject to NJPDES standards. As long as the Department carefully reviews the applicable NJPDES standards and the re-use is compatible with the water quality of the reclaimed water, this approach is highly beneficial for water resource conservation and watershed stewardship. The inclusion of a further refinement of "restricted access reclaimed water for beneficial use" provides protection for the public although we question whether golf course irrigation should be considered as a use that is highly restricted. We consider the use of water by golf courses to be far too consumptive and depletive to be allocated anything other than recycled water.

We agree with the definition of steep slope as any slope equal to or greater than 20 percent as measured over any minimum run of 10 feet. *Delaware Riverkeeper Network*

7:15-3.1-2 We support the requirement of a consistency determination (CD) review that includes all actions that could affect water quality. The proposed additional actions that require a CD capture more activities than previously and include environmental criteria, which help to prevent pollution and degradation. Also, we support the requirement that in certain situations where water pollution or habitat degradation may occur as a result of the project, a site specific pollution control plan must be provided during the CD review process, which requires the applicant to prevent pollution as part of the review process, engendering a proactive approach. Due to its potential impact on nonpoint source pollution and riparian encroachment, all projects that require any deviation from FEMA standards in the regulated floodplain should trigger a consistency determination review. We suggest this to be added to the criteria . *Delaware Riverkeeper Network*

7:15-3.3 We support the requirement that TMDL segments and schedules for addressing the problems be adopted as amendments to the Statewide WQM plan and adopted TMDLs made part of Areawide WQM plans. This integrates the TMDL program into the watershed planning process, making it more possible that the TMDL program can be successful, which it has not proven to be as of yet. *Delaware Riverkeeper Network*

7:15-3.4(g)7 We object to the reduction of public notice of a public hearing from two to one newspapers because often interested parties read a different paper depending on what news service area they live in. This is particularly true for areas that are served by weeklies and dailies. Two newspapers will allow for more public access to the information regarding the proposed amendment, which is a good thing for both the applicant and the planning area affected and is not a burdensome expense for the applicant. *Delaware Riverkeeper Network*

7:15-3.5 We agree that revisions, which require less analysis, should be deemed by the Department to comply with the environmental standards in the rule or be processed as an amendment. We caution that this could become a loophole if less than rigorous review is done by the Department. This is particularly true for **7:15-3.5(b)4vi**, which could be abused through improper nitrate dilution analysis. We are concerned that the imperfect application of nitrate dilution models is a weakness in the proposed rule. We do not agree that this circumstance should be allowed as a revision but should require an amendment. *Delaware Riverkeeper Network*

We support RWBR at **7:15-3.5(b)4viii**, as discussed under section 1.5, as a water resource conservation tool and agree the reduction of water withdrawal and discharge that would result from RWBR is significant and highly beneficial. *Delaware Riverkeeper Network*

We object to provisions in **7:15-3.5(b)4x, which** allow cluster development to be processed as a revision under certain circumstances. First, we emphasize that the 70% conserved land should be 70% of the entire parcel, not only the developable portion. This is not specified in the proposal. Second, the requirement that the agricultural portion "implementing the findings of a Conservation Management Plan or a Natural Resources Management Plan" is too vague. The requirement for these plans must be explicitly stated so as not to lead to argument about what it means. The wording should be changed to: "...and that existing agricultural uses allowed on the restricted portion must comply with and fully implement all provisions of a Conservation Management Plan or a Natural Resources Management Plan..." Further, these plans need to be reviewed and approved by the Department. Third, we do not have confidence in the nitrate dilution modeling that may be used to prove the 2 mg/l nitrate planning standard is met. This is particularly true if GSR-32 is used by the Department or applicant or planning agency in the review process. GSR-32 is not an appropriate model for many soils and geologic formations in New Jersey and should not be universally applied. If this is done, inaccurate nitrate dilution analyses will result. Therefore, we do not agree that a revision should be allowed for such circumstance; an amendment should be required. It should not be assumed that water resource protection would be achieved by these clustering provisions. We strongly recommend this section be deleted. *Delaware Riverkeeper Network*

7:15-4.4(a)1 We agree that individual sewage disposal systems with a wastewater flow that does not exceed 2000 gpd or five residential units should be deemed consistent with WQM plans. N.J.A.C. 7:9A provides

standards for these systems but the cumulative impacts of multiple houses (over 5) that generate higher flows in total are not adequately regulated or measured. We agree that the best way to address these negative impacts is the requirement here and later in the rule that 6 houses or greater with septic systems must require an amendment which requires that environmental standards be met. *Delaware Riverkeeper Network*

7:15-5.1 We support that an amendment or revision to a WMP should only be considered when the WMP is up to date. For too long, amendments have been the only updating of these plans, and that led to a piecemeal, development project-driven process, which was not protective of water and/or ecological resources. *Delaware Riverkeeper Network*

7:15-5.4 As discussed above, we do not support the assignment of the preparation and update of wastewater management plans (WMP) to County Boards of Chosen Freeholders at this time. Our concern is that many if not most Counties are not prepared, trained or funded to carry out these duties. The Counties are not oriented towards planning on a watershed basis. It should not be assumed that Counties have an inherently regional approach; and it should not be assumed that "regional" perspective is necessarily watershed-based. It is very important that the water quality management plans and wastewater plans are organized and carried out by watersheds as well as dealt with on a regional basis. The Counties' tendency is typically to provide county-wide services such as roads, bridges, and transit, not delve into municipal planning or the regionalization of municipal plans, except where mandated by the state through such programs as the State Development and Redevelopment Plan and the review of municipal stormwater plans. The uneven execution of some Counties' responsibilities in these efforts is evidence that all Counties are not ready for yet another formidable responsibility. Some Counties have even tried to remove their own projects from the WQMP process, claiming the Department's WQMP rules don't have jurisdiction over Counties. The Counties are simply not equipped in expertise or funding to carry out WQMP and WMP planning and their approach is not necessarily protective of watershed quality.

In many cases, municipalities are far ahead of their counties in the quality and timeliness of wastewater planning and the expert guidance they receive through professional planners engaged by the municipalities. The municipality knows best its needs in this regard and should be able to get direct assistance from the Department in both expert advice and funding to prepare and update WMPs. Guidance on developing a regional approach can be provided by the Department on a watershed basis and through funding for regional plans based on watershed delineation rather than political subdivision lines. Instead of giving this duty to the Counties, the Department should establish a similar program to the regional stormwater plan program found in N.J.A.C. 7:8, make it a priority funding element, and encourage municipalities to approach wastewater planning on a watershed basis. The allowance of a municipality to alternatively be assigned this responsibility is not adequate; the duty should go first to the municipality. *Delaware Riverkeeper Network*

7:15-5.8 In order for municipal responsibilities to be fulfilled, they will need education, training, and funding and consistent guidance. As experienced in the implementation of New Jersey's Stormwater Rule, the municipality is today required to meet many mandates and many municipalities are lagging behind in implementing stormwater regulations. Informational forums on the Stormwater Rule in some instances conflicted with each other and guidance from the department shifted as various issues emerged regarding permits and the interpretation of the details of the stormwater rules. Municipalities need well organized help from the Department in order to successfully achieve the requirements of this rule. *Delaware Riverkeeper Network*

7:15-5.13 We object to the assignment of wastewater management planning responsibility to a municipality only if the County fails to submit a WMP for the municipality. We advocate that the municipality be the first designee as the wastewater management planning entity with the County as a default if the municipality fails, subject to Department approval. *Delaware Riverkeeper Network*

7:15-5.17 We strongly support the requirement for mapping of features, which includes many environmental features not previously considered in the regulations (although some, not all, were addressed through EO 109). The inclusion of environmental features in the WMP process ties this planning program to other state environmental programs and allows the process to attain its stated goals and the mandates of the Clean Water Act and Amendments. We suggest the addition of FEMA floodplain delineations, where available, as a required feature to be shown. We agree that wastewater plans should not be based on county master plans, which may not be consistent with municipal zoning. The more appropriate measure of build out and future need is what is allowed under municipal zoning. *Delaware Riverkeeper Network*

7:15-5.24(a) We support the clarification made that just because an area does not meet the criteria for exclusion from a sewer service area does not mean the municipality must provide centralized sewer service there. A municipality's goals, vision and planning are paramount and if a municipality does not want sewers and wants to use individual septic systems instead they should be able to do so without justification based on the provisions of section 5.24. This is particularly important if the Counties are the wastewater planning agency. Municipal planning and watershed characteristics are the foundation of wastewater planning, not top-down imposition of sewer service areas by Counties or other non-municipal agencies as long as the municipality implements the requirements of this rule that provide protection to water and ecological resources. This section is very important and should be highlighted further to express how the decision making about sewer service areas is to play out on the ground. *Delaware Riverkeeper Network*

7:15-5.24(b) We strongly object to environmentally sensitive areas being defined as 25 acres or greater in size. We appreciate the analysis that the Department did to arrive at this number and understand the usefulness of the layered approach that produced the polygon data, which will be very helpful for planning. But the limit of 25 acres severely limits the application of environmental protection to many important environmental features and sub-ecosystems. There are habitats that are critical that are small and support a healthy ecological system for a plant or animal species that do not require large acreage. This is especially true for wetlands, vernal pools, plants and plant communities as well as small sized habitats such those utilized by birds that move from small woodland to small woodland in order to survive in a fragmented forest area. We do not agree that the other permit programs will adequately protect the environmental resources left within the 25 acre excluded areas since the lack of effective buffering in existing rules and past practice shows that eventually such areas are eroded in terms of water quality and their ability to support healthy habitats. The 25 acre size limit should be deleted. *Delaware Riverkeeper Network*

We strongly support the inclusion of **7:15-5.24(b)1-4, 7:15-5.24(c) and (d).** *Delaware Riverkeeper Network*

As stated earlier, 100 year floodplains should be included in the list of environmentally sensitive areas that cannot be developed as part of a sewer service area. Development of floodplains leads to water quality degradation and flooding as well as stream destabilization and ecosystem and habitat degradation[1]. "In their natural state, floodplains have substantial value. These complex, dynamic systems contribute to the physical and biological support of water resources, living resources, and cultural resources. They provide natural flood and erosion control, help maintain high water quality, and contribute to sustaining groundwater supplies...Proper management of floodplains is important to preserve their value and to reduce loss caused by flooding"[2]. "Development in the floodplain individually and cumulatively results in adverse impacts somewhere in the watershed. These adverse impacts can include increased flood stages, increased velocities, erosion and sedimentation, water quality degradation and habitat loss. In addition to these negative effects, development in the floodplain disturbs naturally vegetated riparian corridors and often threatens the safety of both residents and emergency personnel in the event of flood"[3]. *Delaware Riverkeeper Network*

7:15-5.24(h) We strongly object to the allowance of intrusion into environmentally sensitive areas by center based development that is part of an endorsed plan approved by the State Planning Commission. This double standard for allowing destruction of environmental resources for dense "smart growth" is wrong-headed. This provision undermines the ability of the WQMP process to meet the above stated goals and mandates. The location of Centers designated in the State Plan often are places where some development already exists and

that were historically not located on the basis of avoiding environmental impacts. In fact, these previously developed areas often are located in places where there were environmentally sensitive resources. And often built (but not overbuilt) areas are located where high value resources are still intact because the hamlet or small town now has low density and little traffic (such as Category-I stream); without the low density nature of the existing development those resources may not be able to co-exist. To assume that center-based development will by its nature give more back in benefit than it costs in degradation is a wrong assumption. It could just as well be that the "sins of the past" (the location of human development in environmentally sensitive areas) will be now repeated and, indeed compounded, in regards to the degradation of dense development on the resources that the WQMP rule and related laws and regulations are missioned to protect. To maintain, enhance and restore is a stated goal of these rules. By allowing areas that are environmentally sensitive but not at present able to support endangered and threatened species to be degraded, the potential for enhancement and restoration is forever lost there. The requirement that the areas outside the designated sewer service area are in some way protected is not enough-the area will be eroded from the activities regardless due to proximity and the areas inside the service area are given up. We advocate that this section be deleted. *Delaware Riverkeeper Network*

7:15-5.25(a) We strongly support the setting of environmental standards in these rules and their assessment early in the process. We support the approach proposed to only process amendments if compliance with these standards is demonstrated. We endorse the proposal that the standards are the minimum required and a wastewater management plan can set more protective standards. This has proven to be a key provision in other state rules and allows more locally appropriate and stricter standards to be applied. This allows, for instance, a more locally protective nitrate dilution standard that is calculated based on a model accurate for specific geology. *Delaware Riverkeeper Network*

7:15-5.25(d)1.i The peak flow for any given month or the average for three highest months should be used to determine existing flows, not the peak monthly average flow over 12 months. *Delaware Riverkeeper Network*

7:15-5.25(d)1.ii The use of projected population increases over a 20-year planning horizon to calculate future wastewater flows in urban areas should be groundtruthed at the 6-year update and revised if the projections are not accurate. Population projections can be very misleading and inaccurate over time depending on many factors outside of the planning agency's consideration. *Delaware Riverkeeper Network*

7:15-5.25(d)1.iii We support the inclusion of industrial flows and landfill leachate flows in the estimation of future wastewater flows by a municipality. We suggest the inclusion of all leachate from superfund or RCRA permitted sites, which may not be landfill sites but which contribute groundwater or surface water discharges. *Delaware Riverkeeper Network*

7:15-5.25(d)3iii We support the requirement that water quality based effluent limits be calculated based on stream quality and adopted TMDLs. We suggest that in order to achieve a non-degradation program compliant with Clean Water Act goals, their needs to be no measurable change in water quality and habitat and a mandate to improve where there are water quality problems and degraded habitat beyond TMDL requirements. We consider the mandate to enhance and restore to be key to these rules and advocate that the goal is to reach the highest attainable use for the waterway. This may mean a stricter program than that required by a TMDL program. *Delaware Riverkeeper Network*

7:15-5.25(d)3iv We oppose the lowering of stream water quality for any discharge because of the availability of technologies to provide removal of pollutants from discharges. If the technology cannot be implemented that reaches the goal of no degradation then the amendment should not be approved, regardless of demonstration under N.J.A.C. 7:38. *Delaware Riverkeeper Network*

7:15-5.25(d) and (f) We strongly support linking water supply and wastewater planning. This element of water resource protection has been overlooked by present regulations. This is supported by the New Jersey State Water Supply Plan and other planning initiatives such as the draft New Jersey Highlands Regional Master Plan.

We agree that reduced base flow is a result of overallocation of water from streams, reducing the capacity of a stream to assimilate pollutants, as the Department discusses. Reduced stream base flow results in less dilution of pollutants and therefore a greater concentration of pollutants in our stream systems -- the stream's assimilative capacity is compromised. The loss of water also stresses aquatic communities and streamside habitats.[4] This loss of base flow is why streams in many areas are drying up when rainfall is not plentiful -- and this can eventually destroy the life in the stream. Reduced base flow also causes higher water temperatures since natural groundwater discharge to the base flow of the stream is reliably cool.[5] Water temperature increases because the cool ground water that feeds base flow of a stream is replaced by surface runoff from asphalt and other warmed surfaces. This surface runoff may be 83 degrees F or higher in the summer.[6] Higher temperatures can change the fish community. Sensitive species, such as trout, prefer temperatures of 68 degrees F or less and begin dying when water temperatures reach 77 degrees F.[7] Increasing water temperature can also reduce fish abundance and diversity and invite more pollution-tolerant species.[8]
Delaware Riverkeeper Network

7:15-5.25(e)1 We oppose the use of the HUC 11 basis for nitrate calculations. Most agencies, including most water resource agencies, and many state programs and GIS programs use HUC 14 as the basis for calculations. Consistency with these other agencies and programs is very helpful in terms of planning. The HUC 14 provides a more refined analysis and has less "wiggle room" for providing the dilution of nitrates, therefore is more protective. This is important for water resources within the HUC area. While it may seem reliable to calculate nitrate dilution over a HUC 11, there could be more "hot spots" that would get ignored within a HUC 11 than within a HUC 14 and that could negatively impact water quality and ecological resources locally.

We support that a nitrate dilution model must be done to calculate how much development density can be accommodated in areas served by individual septic systems and agree the Department should establish standards for this now-unregulated cumulative impact. We support the requirement for the attainment of a 2 mg/l nitrate standard. The Department has done its due diligence in studying and explaining the use of the 2 mg/l standard and this standard is far more protective. We, however, note that some areas that are pristine will have less background nitrate in their natural condition, as discussed by the Department, and 2 mg/l will represent a degradation of groundwater and, possibly, surface water in the form of base flow. These areas are being sacrificed locally by the use of 2 mg/l. We also point out that some analysis is available to show that .03 mg/l is the standard that should be required for surface waters in order to protect ecological resources, particularly biota. (Souza, Princeton Hydro, draft Regional Sour land Mountain Stormwater Plan, 2006). The rule should make clear that locally derived nitrate standard is allowed and encouraged in order to protect locally high quality ground and surface waters.

We do not support the use of GSR-32 by wastewater planning agencies in all parts of the state in order to calculate nitrate, however. The groundwater recharge volumes in some geologic formations, such as the hard rock geology of the northern half of the State, are not accurately measured by GSR-32. While we understand that the Department will allow the use of a different nitrate dilution model by a municipality if they so choose, we do not support the wastewater planning agency using a nitrate dilution model that is not accurate for the type of geology due to the common overestimation of recharge volume available to dilute the discharged nitrates. The Department points out that recharge volume is an input in the model. These volumes are not universally accepted however, as evidenced by the varying development densities allowed in municipalities that have applied a nitrate dilution model in hard rock geology.[9] This is particularly a concern if the agency that is preparing the WMP is a County or any entity other than the municipality because outside agencies will not be as familiar with local geology as a municipality. The use of GSR-32 and higher recharge volumes by a County and then the use of a more accurate but perhaps more restrictive model at the municipal level, sets up a conflict that can be exploited by developers. The Department, if they do not agree with us that GSR-32 should not be used in certain geologic conditions or that recharge volumes for certain geologies should be required to be estimated through local investigation or standardized by scientific study state-wide, should be prepared to provide legal defense expenses and expertise to municipalities that choose to apply other more protective nitrate dilution models that yield less development density for development employing individual septic systems.

We also point out that there are other pollutants in addition to nitrates that can be used to calculate safe septic density. Bacteria and pathogens are both potential contaminants to water resources from septic systems; indeed any disposed waste that is contributed to the system and not fully removed by treatment is a potential pollutant. Research shows that bacteria and pathogens are transported more easily and quickly through fractured bedrock than through sand and gravel media [10], posing a problem for certain geologic regions of the State if systems are too densely located. Unfortunately, there may not be the same level of data available to input these factors or use them in model calculations for septic density at this time. USEPA has cited bacteria as a groundwater pollutant problem from septic systems[11] and McGinnis and DeWalle (1983) report typhoid fever moving from a septic system to a well 210 feet away during a seasonal high water table. We encourage the Department to research these factors as possible indicators in addition to nitrates in the planning of septic density. *Delaware Riverkeeper Network*

7:15-5.25(e)3 We support the requirement for a mandatory maintenance program for areas served by individual septic systems. This supports the proper care and maintenance of these systems at the local level, where it is best established and carried out. *Delaware Riverkeeper Network*

7:15-5.25(g)1 We strongly support the WMP address nonpoint source pollution and dovetail with municipal and regional stormwater management plans and ordinances, including the public education requirements of the plan aimed at prevention of pollution.

The nonpoint source pollution that is generated by stormwater runoff is persistent and invasive. Stormwater washes a myriad of pollutants from urban/suburban areas during a rain including: sediment, soils, nutrients (including phosphorus and nitrogen), copper, zinc, and other heavy metals (including lead), fecal coliform bacteria, hydrocarbons-oils-greases, atmospheric deposition, vehicle emissions, pavement deterioration, tire and brake pad dust, pet waste, chemicals and fertilizers used in lawn care, road salts and de-icing chemicals and their agents, household chemicals, organic and inorganic debris. Stormwater also increases temperatures.[12] Pollutants washed from agricultural areas include: sediments, animal wastes, plant residues, fertilizers, pesticides and fungicides with mixing agents and surfactants, solid waste, biological agents, and various bacteria and pathogens.[13]

The effects of these pollutants are: sedimentation (or silting in) of streams and in-stream habitats; thermal stress; nutrient enrichment; oxygen depletion in surface water; toxic contamination of water supplies, aquatic life, and the food chain; pathogenic contamination of water supplies, fish, wildlife, and domestic animals.[14] Waterways used for recreation become unsuitable and the quality of life for human communities declines with growing odors, algae blooms, aesthetic degradation and the psychological impacts of knowing a stream is polluted and its life destroyed. Stream morphology is also altered and habitats and stability compromised and/or destroyed by alterations from stormwater flows and flooding caused by induced and poorly managed runoff, as the Department discusses. *Delaware Riverkeeper Network*

7:15-5.25(g)2 We strongly support the protection of riparian areas by a 300 foot riparian zone. This width is consistent with New Jersey's Stormwater Rules and with scientific findings. We advocate for 300 feet minimum on all streams and greater where species protection requires it rather than a step-down standard that give less protection to built areas. Built and urban areas need high quality streams and habitats as much if not more than undeveloped and pristine areas; healthy waterways provide healthy environmental conditions, habitat and quality of life. If we are to take seriously the charge to restore and enhance, 300 foot buffer minimum is needed to get us there first as a healing measure and then as a maintenance measure. Wide riparian zones need to be regulated in order to accomplish the protection needed. [15] *Delaware Riverkeeper Network*

7:15-5.25(g)6 We strongly support the protection of steep slopes as defined as 20% or greater, which will provide needed protection to these fragile features. Disruption of steep slopes has a negative impact environmentally because of increased erosion, increased volume and velocity of stormwater runoff (causing flood flows), sedimentation from soils entering receiving water bodies, reduction of groundwater recharge, and destabilization of hills and ridges. Habitat for wildlife and unique plant species is also lost. Aesthetically, the disruption of vegetation and natural grades and ridges degrades scenic and viewshed quality. The most protective approach to steep slopes is to keep them naturally vegetated with a mixed plant community that includes herbaceous plants, shrubs and trees of various size, age and species. *Delaware Riverkeeper Network*

7:15-6.2 The responsibility of the Department to identify through listing and prepare programs to address water quality limited waters is fundamental to cleaning up polluted waters in New Jersey. The process nationwide and locally has been excruciatingly slow. Delaware Riverkeeper Network was involved in the litigation brought against the U.S. Environmental Protection Agency (and subsequent litigation against the Delaware River basin states) that brought about the TMDL program. While the program is not as effective as it should be, the process can work if diligence is applied to gather and interpret water quality information regarding our waterways and if the problems are addressed in a comprehensive way with measurable goals that chart success. We support the efforts in these rules regarding TMDLs but caution that training, funding, and support will be needed to make this work. All other efforts so far have been patchy and uncoordinated. The effort to ensure that the Department's programs (such as wastewater permitting) and Department and municipal efforts (such as nonpoint source control programs, i.e. stormwater) don't work at cross-purposes is essential. These rules take a good step towards that goal with the requirement that the list of water quality limited segments is made an amendment to the Statewide Water Quality Management Plan and with the requirement that the implementation of the statewide, areawide and local WQMP plans address these stream problems.

7:15-8 We support the withdrawal of wastewater service area designations that are not up to date. This is the only way to reality-check wastewater planning in the State and bring attention to the fact that most plans are obsolete in light of current facts. We support the requirement that residential development of six or more dwelling units are subject to these rules. We also support that in calculating the number of dwelling units, previous development is to be counted. This helps to close a loophole that would allow developments to avoid compliance with these rules.

Thank you for the opportunity to comment on this proposed rule.

Sincerely,

Maya K. van Rossum
the Delaware Riverkeeper

Tracy Carluccio
Deputy Director

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[1] New Jersey Flood Mitigation Task Force, Report on Delaware River Flood Mitigation, August 22, 2006

[2] Beyond the Ark, A New Approach to Floodplain Management, Kusler and Larson, June 1993.

[3] The Delaware River Basin Commission Interstate Flood Mitigation Task Force Action Agenda, July 2007 p. 66.

[4] Cahill and Associates Environmental Consultants, Porous Pavement with Underground Recharge Beds, Spring, 1993.

[5] "How Much Development is Too Much for Streams, Rivers, Lakes, Tidal Waters and Wetlands?", Community and Environmental Defense Services, Maryland Line, MD.

[6] "How Much Development is Too Much for Streams, Rivers, Lakes, Tidal Waters and Wetlands?", Community and Environmental Defense Services, Maryland Line, MD.

[7] [7] "How Much Development is Too Much for Streams, Rivers, Lakes, Tidal Waters and Wetlands?", Community and Environmental Defense Services, Maryland Line, MD.

[8] DNREC and Brandywine Conservancy, Conservation Design for Stormwater Management: A Design Approach to Reduce Stormwater Impacts from Land Development and Achieve Multiple Objectives Related to Land Use, September, 1997, p. 1-18

[9] Posten, S.E., Estimation of mean groundwater runoff in hard-rock aquifers of New Jersey: Columbia University Seminar Series on Pollution and Resources, Volume 16, Halais_Kun, G.J. (ed.), Pergoman Press, 1984.

[10] Becker, Metge, Collins, Shapiro, and Harvey, Bacterial Transport Experiments in Fractured Crystalline Bedrock, *Groundwater*, Sept./Oct, 2003.

[11] Yates, M.V., 1985," Septic tank density and ground water contamination", Ground Water, Volume 23, No. 5, pp. 586-590, 1985.

[12] Cahill Associates, "Stormwater Best Management Practices, Land Use Management for Nonpoint Source Control in the Lower Delaware Coastal Zone", 1993; New York State Department of Environmental Conservation, Reducing the Impacts of Stormwater Runoff from New Development, April, 1992; DNREC and Brandywine Conservancy, Conservation Design for Stormwater Management: A Design Approach to Reduce Stormwater Impacts from Land Development and Achieve Multiple Objectives Related to Land Use, September, 1997.

[13] Center for Watershed Protection, Better Site Design: A Handbook for Changing Development Rules in Your Community, August 1998.

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