



ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT DEPARTMENT

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June 18, 2010

Mr. Eric Livingston
Florida Department of Environmental Protection
2600 Blair Stone Road, M.S. 3500
Tallahassee, Florida 32399-2400

Re: Draft Statewide Stormwater Treatment Rule Pursuant to Chapter 32-347, Florida Administrative Code

Dear Mr. Livingston,

This letter is in response to the Department's request for review and comment on the draft statewide stormwater treatment rule and the draft applicant's handbook. The County understands the development of the statewide stormwater treatment rule is essential in protecting the quality of the County's waterways. Clean surface water is a goal we all share and the County welcomes the opportunity to assist by providing comments on the draft rule. Broward County staff has conducted a preliminary review of both the draft rule and the draft applicant's handbook and offers the following comments.

1. **FDEP should adopt the term "undeveloped" or "natural" to refer to the natural condition for water quality calculation purposes rather than the terms "pre", "post=pre", "pre-development" or "pre-project", which have traditionally been used in Florida to reference existing site conditions, whether developed or undeveloped. Alternatively, the draft handbook should stipulate that the proposed definition applies for water quality calculation purposes only and should provide a separate definition of the term(s) for water quantity calculation purposes.** The draft handbook proposes to revise the water quality calculation methodologies while leaving the existing water quantity calculation methodologies unchanged. This in and of itself is not an issue, however, the draft handbook creates a potential source of confusion by adopting the commonly used terminology "post equals pre" or "post=pre" and assigning a completely different meaning than is currently used for performing water quantity calculations. Currently, "post=pre" or "pre-vs-post" is used to perform water quantity calculations with the term "pre" or "pre-development" referring to the existing site condition, whether developed or undeveloped. The proposed handbook defines "pre" or "pre-development" or "pre-project" as the natural condition, not the existing developed or undeveloped condition. This potential source of confusion was also raised as a concern by the EPA on February 6th, 2008 "...it should be clarified in any subsequent rule development to specify that pre-project conditions refer to the natural

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state". The FDEP response to the EPA was that "pre" or "pre-project" conditions are defined as the "undeveloped conditions".

2. The draft handbook proposes to provide an option for redevelopment activities that occur on lands less than two acres to provide a lower level of treatment. The proposed language in Section 3.1 (C) on page 6 of the applicant's handbook states: *"Stormwater treatment systems serving redevelopment activities that occur on lands with two or less acres shall meet the appropriate minimum level of treatment set forth above. However, an applicant may request approval by the Agency of a lower level of treatment. The lower level of treatment will be determined by the applicant conducting and submitting a feasibility analysis which considers the applicability of currently available treatment technologies relative to: The current and proposed land use and level of imperviousness; Physical site constraints such as soil and water table characteristics; Hydraulic constraints such as tailwater elevations; Connections to existing infrastructure; Local government requirements (zoning, land use intensity, codes); Availability of regional facilities and opportunities for offsite treatment. The Agency shall review the feasibility analysis and determine the final level of treatment that will be required for the activity."*

- a. **More detail should be provided on how the two-acre size limitation should be applied, including details on whether the size limitation includes all applicant-owned contiguous land area and whether there are cumulative redevelopment or time restrictions.**
- b. **More detail should be provided to ensure these criteria are applied consistently.** It is unclear how the referenced feasibility study will be conducted and how the final level of treatment should be determined.
- c. **FDEP may wish to consider alternative means to define the minimum threshold rather than acreage.** Broward County has successfully applied water quality criteria for redevelopment activity on sites of all sizes for nearly 20 years using a tiered percentage of redevelopment approach. The County has used these redevelopment requirements to require full water quality treatment for over 1000 previously developed acres, contributing to the preservation of designated uses and reducing high pollutant loadings from older stormwater management systems as per 62-40.431 F.A.C. The County Code requires the entire redeveloped site to be brought into compliance with the full water quality treatment requirements if the redevelopment project involves the demolition or removal of more than 50% of the existing impervious area or the demolition of the principal structure or the cumulative expansion of developed area greater than the lesser of 25% of the existing developed area or two acres over a ten year period. Redevelopment activity under these thresholds may provide lesser water quality treatment with the exception that full water quality treatment is required for any expanded development areas. There are no indications that requiring redevelopment projects to meet the water quality treatment requirements using this methodology affected the rapid pace of development within Broward County during the 2000-2005 real estate market and the load

reductions obtained within the Old Pompano Canal WBID were sufficient to meet the TMDL targeted reduction for nutrients of approximately 30%.

3. The draft handbook requires a minimum of two feet of separation between the seasonal high water table and any proposed exfiltration trench, dry retention/detention, underground storage, or underground retention vault systems.
 - a. **The exception to this requirement allowing for 1' of separation in Dade County should also be extended to Broward County.** The conditions in Dade County that provide justification for this exception also exist in Broward County as most of the County has a limited depth to water table, on average approximately 4' of separation between final grade and the seasonal high water table.
 - b. **The draft handbook should provide guidance on how to determine the appropriateness of the information submitted by the applicant or how to determine a minimum acceptable separation distance.** The draft handbook states that less than two feet separation is allowed "...if the applicant demonstrates, based on plans, test results, calculations or other information, that an alternative design is appropriate for the specific site conditions".
4. **The handbook provides details regarding the requirements for major maintenance of exfiltration trench but does not clarify what is meant by total rehabilitation of underground retention systems or underdrain filtration systems nor is it clear why these systems would not be designed for human access.** The Inspection, Operation and Maintenance protocols for exfiltration trench, underground retention systems and underdrain filtration systems list major maintenance (total rehabilitation) as required to remove accumulated sediment in most cases or to restore recovery rate when minor measures are no longer effective or cannot be performed because of design configuration.
5. The County currently requires renewal of Surface Water Management Licenses every five years. The renewal process requires that a permittee submit a renewal fee, a copy of the maintenance log and an engineer's certification that the system is operating in accordance with the approved plans and conditions every five years. Should the state choose to require recertification more frequently, it would be preferable to require the permittee to keep the annual or bi-annual recertification documentation on-site and only submit the documentation to the agency on a five-year cycle. Additionally, the County has found it difficult to ensure property owners properly maintain systems that require less frequent maintenance and is concerned that it will be increasingly difficult to ensure property owners properly maintain systems that require more frequent or intensive (expensive) maintenance.
6. Arents Urban Land and Udorthents Soil Series are prevalent in Broward County but are not included in Appendix B. Are these soil types proposed to be added to a later version of the appendix? Without these soil types, it will not be possible to determine a Natural Vegetative Community Type and the associated total phosphorus and total nitrogen loads for the purpose of conducting post-pre analysis in portions of Broward County.

7. **The rule should include requirements for standalone cisterns as their design, operation and maintenance are currently not uniformly regulated state-wide.** The draft handbook only includes requirements for green-roof/cistern systems. However, the handbook does not address stand-alone cisterns, which are increasingly incorporated into site design for stormwater management systems to meet LEED requirements.
8. It appears that the methodology for computing post-development pollutant load is not capable of reproducing the empirical pre-development loading rates. This inconsistency means that calculating a load using the post development methods produces a theoretical post-development load reduction for sites where the post development condition is substantially similar to the pre development condition, such as transitioning from a natural vegetative community to a park, open space or low density residential development.
9. It is understood that the intention of the draft handbook is to address water quality calculation methodologies, not water quantity calculation methodologies. However, it may be helpful to provide guidance in the draft handbook on the applicability of the use of the proposed alternative stormwater management systems to partially address water quantity criteria as is currently provided for traditional water quality treatment mechanisms such as dry retention or exfiltration trench systems.

Broward County appreciates the efforts of the FDEP and the Department's willingness to give full consideration to the County's comments. We look forward to continuing to work with the Department to ensure the protection of the County's water resources.

Should you have any questions please feel free to contact Leonard Vialpando, PE, Environmental Engineering and Licensing Section Manager at 954-519-1473 or lvialpando@broward.org

Sincerely,



Eric T. Myers

Assistant Director