

6/1/10

Miami-Dade County Department of Environmental Resources Management (DERM) Comments regarding the "March 2010 DRAFT" DEP and Water Management District Stormwater Quality Applicant's Handbook

PART I – GENERAL CRITERIA

Section 1.0

(c) What happens to sites that may be contaminated with other pollutants?

Section 1.5

The report should indicate if there is a system failure it is the responsibility of the permittee to secure a registered professional Engineer to provide a viable solution with plans and calculations that will modify the original permit and conform to current standards and regulations. This recertification process will involve tracking and enforcement. Who would be the responsible agency that would the tracking and enforcement?

PART II – DEFINITIONS

Section 2.0

- (5) We believe that a better suited definition for DCIA is "the impervious area (covered by building roofs, impermeable pavement, and/or other impervious surfaces) that are hydraulically connected to the conveyance system without flowing over pervious areas (permeable land area that allows the runoff infiltration).
- (22) To avoid confusion, the term "Retention" should be replaced with "Retention System."
- It would be helpful if a definition is provided for the term, "Performance Standard."
- Definition of Aquitard should be included ~ impermeable layer along an aquifer Avoid breaching an aquitard. ~

PART III – STORMWATER QUALITY PERMITTING REQUIREMENTS

Section 3.1

- TP and TN may be a performance indicator in an undeveloped area, park or a unique state authorized landuse. In urbanized areas, other contaminants must be used. A commonly performance indicator is the total suspended solid that carries metals, nutrients retained within the first inch of a rainstorm.
- (b) Will this code be the same as the HUC +WBID code number, formerly known as the Water Body Identification number?

Section 3.2

- Instead of a 50 feet, minimum from a storm water system discharge to a wellfield should be based on well's cone of influence and travel time. No discharge within zones bound up to and including the 30-day travel time.
- Typo: "Accoringly, stormwater treatment....", should be "accordingly"

Section 3.3

- Equation 3.1 : Required % reduction also referred as required treatment efficiency (See 3.5.2)

Section 3.4.1

- WMD Staff that this is Appendix B and Table 3.2 is forwarded to Craig Grossenbacher's staff for comment.
- When an applicant chooses to use locally collected TN and TP aerial loading other then the ones in Table 3.2, how will we confidently receive these data? Are there any regulations for testing methods?

Section 3.5.2

- In an effort to avoid confusing the industry, we recommend that "Annual Mass Loading" is changes to "Annual Pollutant Loading."

- According to the text, the required treatment efficiency equals % reduction.
- Figure 3.2 – Figure 3.6: Is this annual? As in “Annual Rainfall (or Precipitation) Isopleth or Isohyetal) for Florida. The same would apply to the maps that are broken down by section.
- Since Appendix C will not be adopted in the Stormwater Rule, Where are the definitions for Land Use?

PART IV – EROSION AND SEDIMENT CONTROL

Section 4.1

- Typo: “An effective sediment and erosion control planis.....”, *it should be “...plan is..”*

Section 4.3.1.4

- Is there a specific form to fill out?
- Which agency would enforce the submittal of these inspections reports?
- The inspection reports are to be kept on site in a Stormwater Quality Report Binder?
- What are parameters of MS4 required for the report?

Section 4.4

- Flow through velocity shows interchangeable a (V) or (Vd), is this intentional?

PART V – BEST MANAGEMENT PRACTICES

Miami-Dade would like to add the use of a drainage well to be included as BMP because of area limitation for the installation of an retention system, provided that they meet the requirements of Chapter 62-528, FAC.

Section 5.2

- Figure 5.1 – Typical Cross-section of “Dry” Retention Basin: Figure should include: a minimum freeboard range, steepest slope allowed, and minimum vertical distance from bottom of the pond to SHGWT

Section 5.4

- (f) Retention basins shall not be constructed within 50 feet..... *Instead of 50 feet, the minimum distance from a storm water system discharge to a wellfield should be based on well's cone of influence and travel time. No discharge within zones bound up to and including the 30-day travel time.*

Section 6.1

- For refurbishment, improvement or reconstruction, will the criteria used to design the system be grandfathered? If not what is the specific criteria to be used? *Section 6.2*
- (see page 36 6.4(h)) 4th paragraph, last sentence “They shall not be placed within 10 feet of the building...” – In Miami-Dade County the setback requirements by zoning code in Section 33-41, Miami-Dade County Code, is minimum 5 feet to maximum 7.5 feet between structures and all side and rear property lines. This restriction to will prevent property owners to install exfiltration trench. In addition, other municipalities allow exfiltration trench inside a building, if it meets structural and plumbing design specifications. The 10 feet setback should be eliminated from the rule provided that the exfiltration trench can be replaced by the property owner. Figure 6.1 “Cross-section of a “DRY” Exfiltration Test (N.T.S.)” – Add vertical dimensions.

Section 6.4

- (b) Filter fabric should adhere/conform to FDOT Standard Specifications.
- (o) “Exfiltration trenches shall not be constructed within 50 feet....” *Instead of 50 feet, the minimum distance from a storm water system discharge to public wellfield should be based on well's cone of influence and travel time. No discharge within zones bound up to and including the 30-day travel time.*
- (p) Why wasn't the following included or least mentioned):
 - a. Max contributory area to an exfiltration trench (i.e., one acre)
 - b. Min distance allowed to basement walls (Refer to South Florida Building Code)

- c. Min. distance to water supply lines, sewer lines and other vital utility lines
- d. Min soil boring depth for the geotechnical test of the areas proposed for trench or proposed watershed
- e. Min percolation test for infiltration study of the areas proposed for trench or proposed watershed

Section 6.5

- Figure 6.3 - "Typical Exfiltration Trench Sumps and Dead End Details"
 - A. Is a 12-inch weep hole a minimum or maximum
 - B. In regards to the perforated pipe, is there any mention of the material that can be used and a minimum distance that can be installed?

Section 9.3

- Figure 9.1 – "Typical Cross-Section of a Conveyance Swale without swale blocks"
 - A. Minimum freeboard distance is not mentioned.
 - B. Minimum distance from confining unit to bottom of SHGWT is not specified.

Section 9.3.2

- Is "A" meant to be defined as area?
- No mention is provided as to how to calculate "time of concentration."
- Define "K".
- In regards to "rainfall intensity for the time of concentration", what probability (10, 25, 50, 100-year) should be used? Will a table correlating rainfall intensity for each storm event and place (Example: city in Florida) be prepared?
- How is "desired treatment volume/Time of Concentration" defined? Is a table with accepted values being developed?
- What units will be accepted for "Q"?

Section 9.4

- (h) Swales shall not be constructed within 50 feet.... *Instead of 50 feet, the minimum distance from a storm water system discharge to a wellfield should be based on well's cone of influence and travel time. No discharge within zones bound up to and including the 30-day travel time.*

Section 11.5

- (o) List reference of the "Report Form" for the Erik Infiltrometer.

Section 13.3

- The bleed down volume shall be the first one inch of runoff from the contributing area. This doesn't correlate with the rule currently established in Volume IV 5.2.1. "Bleed down volume shall be provided for the first inch of runoff from the developed project, or the total runoff of 2.5 times the percentage of imperviousness, whichever is greater."
- In an effort to avoid any confusion, "normal wet season tailwater elevation" should be defined.
- Figure 13.1 "Typical Cross Section of a Wet Detention System"
 - A. Minimum freeboard distance is not mentioned.
 - B. "Normal Wet Season Tailwater Elevation" is not defined.

Section 13.5

- The figure is not completely visible and legible.

PART V – METHODOLOGIES AND DESIGN EXAMPLES

- PART V – The roman numeral is out of sequence, it should be VI

Section 21.6

- Should "thickness or elevation..." This should state, "effectiveness aquifer thickness and elevation of the mobilized aquifer."
- B - In Miami Dade County, the SHGWT used to be the Average October Water Table. Can this become an accepted value in this book?

APPENDIX B

- It is not clear where the loading rates for upland communities, as presented in Table 3.2, were derived. Please provide background references and the process by which these loading rates were derived for evaluation and comment prior to finalizing this document. The presented loading rates appear to be much higher than what natural vegetative communities in South Florida would experience under undeveloped conditions, therefore, implementation of these guidelines may result in excessive nutrient loading to natural communities. The proposed loading rates might be appropriate for impacted upland areas such as managed landscaped areas, but nutrient loading over ambient levels should not be permitted in South Florida natural areas, such as the globally imperiled pine rockland community. This community, unique to South Florida, is characterized by a nutrient poor rocky substratum. It contains a large number of endemic and protected species as a result of the unique combination of climate and soils. This community is likely to be extremely sensitive to changes in nutrient status.
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- No Soil Series is given or included for the following:
 - A. Beach type soil
 - B. Biscayne gravelly
 - C. Biscayne marl, drained
 - D. Biscayne marl-rock (outcrop complex)
 - E. Cardsound silty clay loam – rock outcrop complex
 - F. Chekika (very gravelly loam)
 - G. Demory
 - H. Krome
 - I. Matacumbe
 - J. Opalocka
 - K. Rock Outcrop (Vizcaya-Biscayne complex)
 - L. St. Augustine Sand
 - M. Tamiami Muck
 - N. Urdonthents and its various forms are not given

APPENDIX D

- Indicate units that shall be utilized for the “Calculated Dry Retention Depth.” Shall we assume that it will be “inch per acre of watershed.”

APPENDIX E

- Interpolation of values may be difficult.

APPENDIX F

- Interpolation of values may be difficult.