



April 1, 2010
Comments from Builders Association of South Florida to
March 2010 Draft Department of Environmental Protection
Environmental Resource Permit
Stormwater Quality Applicant's Handbook
Design requirements for Stormwater Quality Treatment Systems in Florida.

General Comments

Members reviewed select portions of the draft handbook and were glad for certain acknowledgements of Miami-Dade's unique hydrogeology, topography, soil conditions and rainfall.

However, they also are concerned that beyond these few statements, more specific provisions are needed to ensure both compliance and enforcement. They respectfully submit these and possibly other changes to include specific provisions which acknowledge and relate to Miami-Dade's unique physical differences between it and the rest of the state as well as the locally adopted more stringent regulations with which builders and developers have been complying for many years.

It is our members' contention that these more stringent water quantity requirements have had important water quality benefits as well. Their initial comments and recommendations to the handbook and comments are set forth below. As the handbook changes over time, members reserve the right to provide additional comments to the Department.

Miami-Dade builders and developers have been complying with more stringent local standards for years. For the past 15 years, several Miami-Dade agencies have been enforcing more stringent water quantity requirements than either the Florida Department of Environmental Protection (FDEP) or the South Florida Water Management District.

- **Typical project over-design features for water quantity have improved water quality too.**

Over the past 15 years, all Miami-Dade projects have been complying with both the County's Public Works Department and Department of Environmental Resources Management (DERM) requirements for water quantity. Most are typically over-designed by several times (typically anywhere from 2-6 times).

Thus, while the initial basis for the requirements was to handle the greater water quantity experienced locally due to the area's sub-tropical climate, this has also served the dual purpose of a more stringent water quality requirement too. The county's water quality has benefited as a result. The key points below support this result.¹

- **Nearly all projects must retain all storm water on site.**

Local ordinance requires that approximately 95-98% of all projects retain all storm water on their site. The storm water is not permitted to be released into an adjacent canal, lake or other water body. Of the remaining 3-5% of projects which are permitted to release water into an adjoining water body, they must all have met DERM's requirements for retaining the first one inch prior to discharging to the water body.²

- **County requires retention of first one-inch of storm water for all projects – 100% more restrictive than South Florida Water Management District requirement.**

As mentioned above, Miami-Dade County DERM has had regulations in force for many years – applicable to all projects - which require the retention of the first one inch of storm-water above the inlet drain before it is released into an exfiltration trench. As reference, the Water Management district requires only commercial and industrial projects retain the first one-half inch of stormwater, prior to discharging into a lake. This has in effect provided additional treatment. DERM's basis for this requirement is that the first one inch of storm water typically contains the most pollutants. Thus, 90% of all County projects built since this time, had either met or exceeded the water quality requirements because of the County's more stringent engineering requirements for water quantity, which have had a significant and positive impact on our local water quality.³

Comment [m1]: MDC DERM requires that treatment occurs before discharging into a lake or other surface waters. As such, the first inch of runoff, or 2.5-inches x the impervious area (whichever is greatest) has to be treated prior to discharge. In MDC, this is addressed with exfiltration trenches (the treatment occurs in the trenches). The theory being that the first slug of runoff contains the vast majority of the pollutants.

- **For the past 15 years, DERM has required a one-foot separation from the water table to the bottom of the dry retention basin for all projects in the County.**

- o **The proposed rule would now increased that by 100%, as it proposes a two-foot separation.** Members are concerned that even more of the site would have to be set aside for dry retention, reducing the buildable lot area even more than by the current 25-33%. Also, the added cost of raising the site another foot would add a significant cost to the development costs already very high now due to the land set-aside requirements.

¹ Miami-Dade County Public Works requires (in most instances) that drainage is designed for a 5-year storm event with a 10 minute time of concentration, which translates to a rainfall intensity of 6.2 inches per hour. Due to the requirement for this high intensity, a safety factor of 2 and a minimum length of exfiltration trench at each inlet, designs typically exceed the current water quality standard of retaining the 1st inch of runoff by a factor of 2 – 6 times.

² The full on site retention is not so much a requirement as the fact that in most instances, there is no regional drainage system to overflow into. Projects are required to retain a 25yr-3day storm even on site before overflowing to a regional system, if one is available. If the project is located in a cut and fill basin, then the requirement is full on site retention of a 100yr-3day storm event.

³ DERM requires that treatment occur before discharging into a lake or other surface waters. As such, the first inch of runoff, or 2.5-inches x the impervious area (whichever is greatest) has to be treated prior to discharge. In MDC, this is addressed with exfiltration trenches (the treatment occurs in the trenches). The theory being that the first slug of runoff contains the vast majority of the pollutants.

- **Recommendation 1:** Given Miami-Dade's limited amount of remaining developable land and the County-wide emphasis in promoting redevelopment projects, members recommend that the one-foot separation now in effect in the County be retained, and the two-foot separation not be adopted for Miami-Dade Projects.

- **Dry Retention Required in Six Environmentally Sensitive Basins.**

Finally, in six environmentally sensitive western Miami-Dade basins, representing over 36,000 acres of developable land, applicants have had to comply with even more requirements: for any property located in any of these, the applicant must set aside between 25-33% of the site as for dry retention areas. (including land, lake or a combination or both)

- Currently, in these areas, DERM requires a **one-foot separation** from the design water table to the bottom of the dry retention basin for all projects County-wide. The proposed rule would now increased that by 100%, as it **proposes a two-foot separation**.
- Further, members are concerned that, in these two basins, even more of the site would have to be set aside for dry retention, reducing the buildable lot area even more than by the current 33%. Also, the added cost of raising the site another foot would add a significant cost to the development costs already very high now due to the land set-aside requirements.
- DERM would also have to go back and re-analyze the Cut and Fill Basins using this new requirement and modify the graphs used (in lieu of calculations) to determine how much area to set aside for a particular project within the basin.
- **Recommendation 2:** Given Miami-Dade's limited amount of remaining developable land and the County-wide emphasis in promoting redevelopment projects, members recommend that the one-foot separation now in effect in the County be retained, and the two-foot separation not be adopted for Miami-Dade Projects.

Comment [m2]: DERM would also have to go back and re-analyze the Cut and Fill Basins using this new requirement and modify the graphs used (in lieu of calculations) to determine how much area to set aside for a particular project within the basin.

Specific Questions and Recommendations. (All page numbers refer to the March 2010 draft of the ERP Stormwater Handbook.)

Page 3, Inspection Schedules (Table 1.1) – members reviewed it and had no additional comments to this item.

Page 7, Table 3.1 – Stormwater Treatment Performance Standards – Members have the following questions:

- **Question 1:** how will redevelopment projects in urbanized areas be affected by Table 3.1 as to pre-development = to post development conditions? If a site has undergone redevelopment more than once, what is considered its “pre-development” condition?
- **Question 2:** Previous ERP requirements exempted sites 2 acres or less. Will table 3.1 eliminate the exemption?

Page 36, Paragraph (l) Baffles – retain existing local requirement of installing baffles in parking lots or at signalized intersections. Per Public Works Department maintenance policy, retain the County's current policy.

- **Recommendation 3:** include a provision which is identical to Miami-Dade Public Works Department as they subsequently will pay to maintain these structures. This has been an issue for them in the past.

Page 37, Paragraph (k) Weep holes – this proposed requirement would have the opposite effect that the drafters intend: it would release pollutants back into the aquifer rather than capture it. This is because of the County's very high water table. The pollutant which is supposed to be trapped by the weep hole would be almost immediately returned to the aquifer rather than remain at or near the bottom of a trap or box. The weep hole detail is shown on all details.⁴

- **Recommendation 4:** A provision should be included specifically for Miami-Dade to exclude this provision.

Page 302, Chapter 29.0 - Exfiltration trenches (aka French drains) – members have several concerns here. While there are diagrams for French drains, there are no specifications about how to design them. Ninety percent of projects in Miami Dade are designed using French Drains, or wet exfiltration trenches in Miami-Dade County. There is no design example or specific criteria for this type of trench **Without the specifications, our members cannot provide comments about the impact of this rule.** members need to see the proposed design specifications.

- **Recommendation 5:** please provide design and specifications for wet exfiltration trenches, after which time our members will evaluate them and can send comments at that time. Scenarios are missing at Table 29.0. Until Exfiltration trench scenarios are presented to us in the draft handbook, members cannot comment on its impact until one is presented to them.
- As reference, the South Florida Water Management District's Volume IV handbook has such specifications. Are applicants supposed to use that or another set of specifications?

Page 36, Paragraph j, Box requirements the draft rule would require a concrete box or an 8" cleanout for dead-end trenches. This is unnecessary for short trenches where inspections can be made from the inlet or manhole structure.

- **Recommendation 6:** retain existing local DERM requirements for box requirements. The jet-vac hose used for box maintenance is typically much longer than 50 feet. This requirement only increases the cost, provides no additional environmental benefit and is not needed for maintenance purposes.

Additional Comments

Rainwater credit – another DERM provision with which all applicants have been complying when using exfiltration trenches is the additional 3.28-inch credit for rainfall. This has been a DERM and SFWMD policy since 1996.

Recommendation 7: include a provision be included in the draft rule to retain the 3.28 inch rainfall credit. (except in Cut and Fill Basins)

⁴ Sump in the inlet, will return to the aquifer via the weep hole.

Drainage wells – the draft rule does not address drainage well requirements and the current acceptable rate of the 90-second detention time as pre-treatment. Given that this is an important method of rainwater disposal in urban areas, this provision should be included in the rule. Miami-Dade is not the only highly-urbanized area which would need such a provision, but it is the area of the state that has been using this method successfully for urban drainage near sensitive water bodies for many years now.

- **Recommendation 8:** include a provision which accepts the 90-second detention time as pre-treatment for drainage wells.

Procedural issues for existing permits – given the current economic conditions, it is likely that projects will be sold and possibly even re-sold before they are completed. To retain the project's value to the local jurisdiction and to the owner, members make the following points:

- **Recommendation 9:** when sold, transferred or assigned to new owners, permits are to be considered as grandfathered in, based on the rules under which the permit was issued.
- **Recommendation 10:** Any permit modifications should be reviewed using the rules in effect at the time the project was designed and the original permit was issued. Otherwise, the project will be rendered much less valuable.

Future rule and handbook modifications – Given the complexity of the draft rule, members recommend the following:

- **Recommendation 11:** a rule revision be considered after one year, and subsequently every 2 years after adoption. This will also allow for the integration of new technology and new study/data results which may be issued by various agencies.

Economic Impact Analysis – a third-party independent economic analysis is very important for both the public and the department. Thus far, an evaluation of the costs and environmental benefits has not been prepared. Without it, it is not possible to evaluate the impact of this rule on Miami-Dade's nearly depleted land supply, the rule's potential impact on remaining land costs, future development and redevelopment costs.

- **Recommendation 12:** get third-party independent economic analysis prepared and made available to the public three months before final rule adoption.

The members appreciate the opportunity to present the Association's views. Prepared by the Builders Association of South Florida's (BASF) Environmental Code Review Committee and staff. For information, please contact Ms. Truly Burton, Government Affairs Director, Builders Association of South Florida, at trulyburton@basfonline.org.