

Mr. Livingston

The Miami Dade County Public Works Department (PWD) has reviewed the March Stormwater Quality Applicant's Handbook and has the below comments:

Stormwater Treatment System Recertification Frequency

Due to the unique hydrological conditions found in Miami-Dade County, exfiltration trench is used as a standard Best Management Practice (BMP) in the treatment of stormwater. Consequently, as part of new and retrofit projects, hundreds of miles of exfiltration trench are installed every year. Currently, PWD has in place a schedule in which all drainage infrastructure within the public right-of-way is cleaned and inspected every five years.

The current version of the handbook proposes a recertification frequency for exfiltration trenches once every eighteen (18) or twenty-four (24) months and that such inspection is to be performed by a registered professional. Based on the above-mentioned data on the installation of exfiltration trench in Miami-Dade County, this would place an enormous burden on PWD and other large municipalities which frequently install exfiltration trenches as a BMP. This burden would not only increase exponentially every year but also tax the limited resources of these municipalities.

After reviewing the proposed rules, PWD is making the following suggestion:

- Allow the option of a certified professional to perform the inspection once they have completed an appropriate training course. A certification similar to the Florida Stormwater Association's Stormwater Operator Level 1 could be developed to properly train technical staff to perform these inspections.
- Increase the recertification frequency to every five years.
- Without a full scale test of the exfiltration trenches, which would be cost prohibitive, it is unclear what the person performing the recertification would be certifying. PWD suggests creating a standardized checklist for the recertification to include the following items:
 - Structures have been cleaned and found to be free of debris.
 - Pipes have been cleaned and found to be free of obstructions and debris.
 - Pipe lengths cleaned and system interconnections are as per the as-builts.
 - Baffles and other pollution control devices are in place and in working order.
 - No complaints of flooding have been made since the system's last cleaning.

Breaching of an Aquitard

As mentioned previously, Miami-Dade County has a unique hydrological condition in which the Biscayne Aquifer, the main source of drinking water, is typically only a few feet below the existing ground elevation. As a result, exfiltration trenches directly discharge to the aquifer system used for drinking water. Currently, sheet 8 of the handbook proposes that all stormwater treatment systems should be designed and constructed to avoid breaching an aquitard.

An exception to the above requirement should be granted to those areas, such as Miami-Dade, using the same reasoning employed to grant the wet exfiltration exemption for Miami-Dade County.

Exfiltration Trench Design Criteria

PWD would like to request clarification on how the factor of safety for the recovery analysis would apply to the wet exfiltration trenches allowed in Miami-Dade County. Additionally, as part of the design and construction of exfiltration trenches, the proposed rules require a termination in an accessible drainage inlet/manhole or an eight (8) inch inspection port at any dead end. Due to the high permeability found in Miami-Dade County, it is common to design/construct exfiltration trenches which are fifteen (15) to twenty-five (25) feet in length. It is impracticable to install inspection ports for short pipe lengths such as these. PWD suggest creating a minimum length of pipe after which an inspection port or drainage structure be installed for inspection purposes. Currently, Miami-Dade County requires such inspection/cleanout structure be installed in pipe lengths greater than 50 feet.

If you have any questions or if the Miami Dade County Public Works Department can assist in any way please contact me.

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