FLORIDA STORMWATER ASSOCIATION

Leadership in Stormwater Management and Utilities

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M E M O R A N D U M

To: Florida Department of Environmental Protection

From: Florida Stormwater Association

Date: September 29, 2020

Re: Statewide Stormwater System Design Criteria
Implementation of Section 5, Chapter 2020-150, Laws of Florida

The purpose of this memorandum is to provide the Department of Environmental Protection (Department) with the initial comments of the Florida Stormwater Association concerning the implementation of section 5 of Chapter 2020-150, Laws of Florida. Section 5 directs the Department together with the state's five water management districts to initiate rulemaking to update the stormwater design and operation regulations using the most recent scientific information available, requires consideration of low-impact best management practices (BMPs) that increase the removal of nutrients, and requires the Department to review and evaluate permits issued under Section 403.814(12), FS for compliance with water quality standards, by January 1, 2021.

Excess nutrients are the leading cause of impairment in our surface water bodies and are a growing concern in groundwater and springs. It is critically important that stormwater treatment standards are improved to meet the intent of the original and current statewide stormwater rule and provide for increased levels of nutrient removal, better protection of groundwater, and more consistent and comprehensive best management practice (BMP) design criteria throughout the state.

Much has changed in Florida since the original "statewide" stormwater rule, Chapter 17-25, FAC, was adopted by the Environmental Regulation Commission in October 1981 with an effective date of February 1982:

- The assumption that there was a significant correlation between total suspended solids and other pollutants has been disproven.

- The State Water Implementation Rule (Chapter 62-40) was developed and adopted in response to stormwater legislation passed in 1989. The stormwater treatment performance standard was revised to read "80% average annual load reduction of pollutants that cause or contribute to violations of water quality standards."

- New BMP technologies have emerged over the past 10 or 15 years. Previously, wet detention and dry retention systems accounted for nearly every BMP implemented in Florida. Recently, Low-Impact Design/Green Infrastructure (LID/GI) that began in other parts of the country have been adapted to the Florida environment to make many LID and GI practices viable as a standalone BMP or part of a BMP treatment train.

- Florida now has de facto standards for computing BMP efficiencies. Those are reflected in the draft "Statewide Best Management Practice (BMP) Efficiencies for Nonpoint Source Management of Surface Waters" (DEP, July 2018) and in the UCF Stormwater Management Academy's BMPTRAINS model.

- The *"Evaluation of Current Stormwater Design Criteria within the State of Florida"* (Harper and Baker, June 2007) was an excellent compilation of the state of science for stormwater pollution and BMPs at the time it was published. It demonstrated the potential deficiencies of then-current stormwater design criteria with respect to nutrient removal and recommended revised criteria for solving those deficiencies.

- The Harper and Baker report combined with the work of an associated Technical Advisory Committee on what became known as the 2010 Statewide Stormwater Rule culminated in the draft *"Environmental Resource Permit Stormwater Applicant's Handbook"* (March 2010). Although the rule was never adopted, its recommendations have been used by several jurisdictions in Florida.

Objectives

Revisions to the statewide stormwater rule should provide for the following policy objectives:

1. To update the ERP water quality treatment design criteria to increase the effectiveness of new stormwater treatment systems in removing nutrients and reducing nutrient loads in keeping with the intent of the original and current statewide stormwater rules, and in decreasing the movement of nutrients into groundwater.

2. To eliminate the number of water bodies that become impaired by stormwater nutrients from future development (about 45% of Florida's waters currently verified as being impaired are nutrient-related impairments).

3. To meet the goal of the Water Resource Implementation Rule, Chapter 62-40, FAC, which is to assure that post-development stormwater characteristics do not exceed pre-development stormwater characteristics (peak discharge rate, pollutant load, volume) for all new development.

4. To establish criteria for "net improvement" for re-development projects that will result in proportionate improvement in the receiving water body.

5. To streamline stormwater permitting and make stormwater regulatory requirements more consistent throughout the state.

General Concepts

Much like the initiative undertaken in 2010, the rule should be easy to interpret and would be paired with revisions to the Applicant's Handbook that would describe the process of how the rule can be met. The Applicant's Handbook should cover as many BMPs as we have the science to support and specify how BMP treatment train calculations should be performed. Net improvement should be the minimal standard in all Impaired Waters. There are several issues that should be clarified in the rule:

1. Should net improvement be required in waters that are not identified as being impaired, even if only on the planning or study lists? Should state policy and implementing design criteria require no net increase to a receiving waterbody by new development?

2. How should the rule be applied to redevelopment: Should "existing" conditions be that which existed immediately before redevelopment; the original (undeveloped) condition; or something in between? Should net improvement from the previously developed conditions be encouraged but not required in redevelopment?

3. How should net improvement defined and applied?

4. Should the rule consider the changing nature of hydrologic conditions (e.g., sea level rise and new rainfall patterns) during the useful life of stormwater BMPs?

Initial Recommendations

FSA makes the following initial recommendations to the Department:

1. The Department should utilize a Technical Advisory Committee composed of representatives appointed by affected stakeholders to assist in the development of new regulations. Representatives should be those persons who have hands-on knowledge of stormwater regulations, practices and science.

2. The Report by Harper and Baker (June 2007) and the draft "*Environmental Resource Permit Stormwater Applicant's Handbook*" (March 2010) should be used as an initial starting point in the development of new rules by the Department.

3. Surveys of local practices should be undertaken to determine which local governments and other jurisdictions currently have regulations in place that are more stringent than those of the Department or water management districts. FSA stands ready to assist in this effort.

4. A review of permits and supporting documentation submitted pursuant to Section 403.814(12), FS, should be undertaken to ascertain whether supporting documentation is sufficient to determine whether state water quality standards are being met by development permitted under said subsection and whether said standards are being met. FSA stands ready to assist in this effort.

Thank you for your consideration of these recommendations. FSA looks forward to working with the Department on this important endeavor in the months to come.