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FROM: Greg Munson
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SUBJECT: Guidance on Proposed Implementation of Statutory Provision for Treatment of Offsite Flows to New or Altered Linear Transportation Projects

DATE: August 13, 2013

Treatment of stormwater run-off from state roads and other locations has long been critical to protecting our state's water. A variety of treatment strategies has been, and will continue to be, an important tool in that treatment. HB 599 (2012) provides the Florida Department of Environmental Protection (FDEP) and the Florida Department of Transportation (FDOT) the opportunity to provide greater environmental benefit within the existing stormwater projects, and this guidance memorandum is intended to achieve those benefits.

This guidance also recognizes the importance of coordination between the FDEP, the FDOT, and each water management district in providing the most cost-efficient and effective method for water quality treatment in FDOT's stormwater management systems. This coordination also will result in an overall benefit to the environment.

Background

HB 599 (2012), enacted as Chapter 2012-174, Laws of Florida, amended Chapter 373, F.S. to create the following provision as Section 373.413(6):

It is the intent of the Legislature that the governing board or department exercise flexibility in the permitting of stormwater management systems associated with the construction or

*alteration of systems serving state transportation projects and facilities. Because of the unique limitations of linear facilities, the governing board or department shall balance the expenditure of public funds for stormwater treatment for state transportation projects and facilities with the benefits to the public in providing the most cost-efficient and effective method of achieving the treatment objectives. In consideration thereof, the governing board or department shall allow alternatives to onsite treatment, including, but not limited to, regional stormwater treatment systems. **The Department of Transportation is responsible for treating stormwater generated from state transportation projects but is not responsible for the abatement of pollutants and flows entering its stormwater management systems from offsite sources; however, this subsection does not prohibit the Department of Transportation from receiving and managing such pollutants and flows when cost effective and prudent.** Further, in association with right-of-way acquisition for state transportation projects, the Department of Transportation is responsible for providing stormwater treatment and attenuation for the acquired right-of-way but is not responsible for modifying permits for adjacent lands affected by right-of-way acquisition when it is not the permittee. The governing board or department may establish, by rule, specific criteria to implement the management and treatment alternatives and activities under this subsection.*

This memo proposes an implementation strategy for that portion of the statute, which addresses offsite flows (see bolded section). This statutory provision recognizes that, similar to any other type of new construction or development project, FDOT must treat the stormwater flows generated from a transportation project. It is expected that such treatment will satisfy the requirements of the ERP rules, including the presumptive and other technical criteria found in the various Applicant's Handbook as implemented by the water management districts (WMDs). FDEP supports adherence to these requirements.

This provision also states that FDOT is not responsible for treating offsite flows ("abatement of pollutants and flows") which enter its project area from properties outside of its right-of-way that would otherwise normally discharge to, or in the direction of, the FDOT project area. FDOT generally has four options in dealing with offsite flows that would be intercepted by a linear transportation project:

- 1) Bypass offsite flows around the project's treatment system;
- 2) Accept offsite flows and direct them to a treatment system that is designed to treat the transportation project and the entire offsite flow;
- 3) Accept offsite flows and direct them to a treatment system that is designed to treat only the project; or
- 4) Accept offsite flows and direct them to a treatment system that is designed to treat the project and partially treat the off-site property.

We believe this statute intends to allow any of the four options at FDOT's discretion based on their analysis of "cost effective and prudent" as long as the minimum treatment required for the project, i.e. "*treating stormwater generated from state transportation project,*" is provided.

Empirical nutrient loading model results (Harper methodology) show that, in all cases involving wet detention treatment, even when the treatment facility is designed for only the project area, there is an overall environmental benefit achieved by comingling (i.e. the net pollutant reduction is greater).

The same modeling shows that for retention type treatment systems, when the offsite lands provide equal or greater nutrient loading when compared to the FDOT project, there is also an overall environmental benefit achieved by comingling even when the treatment facility is designed for only the project area. Thus, in these cases, the water quality at downstream points of discharge from the comingled system will be equal to or better than those systems that by-pass offsite flows. Based upon these results, FDEP supports allowing comingling in these cases without requiring further analysis as long as the proposed treatment pond meets the ERP design requirements for the run-off from the project area and results in an overall environmental benefit.

The same empirical nutrient loading model results (Harper methodology) show that where undeveloped or unimproved offsite lands flow into onsite FDOT dry retention ponds, the water quality at downstream points of discharge from the comingled system may, in some cases, be worse than those systems that by-pass offsite flows. As such, these designs should be evaluated on a case by case basis to ensure that environmental protection is not diminished. FDOT estimates that this situation occurs in a small portion of its projects (estimated 6 to 10 projects in a year) and has agreed to work with FDEP for at least a one year period to have each of these “case by case” projects reviewed by a coordination team composed of the FDEP Stormwater Engineer, FDOT Central Office Drainage Engineer, FDOT District Drainage Engineer, WMD reviewer, and project engineer. The goal of the group is to maintain a consistent application across the state with the FDEP representative and the FDOT Central Office representative being a constant and to provide data that may allow us to update this guidance in the future.

Additionally, FDEP has encouraged project “planning and update meetings” to share information between FDOT Districts, the WMDs and FDEP District Offices, and these meetings are frequently occurring. The planning and update meetings will help to address and alleviate concerns about offsite impacts to water quality during the permitting of these projects.

Proposed Implementation

There have been many discussions between FDEP and WMD staff, as well as with FDOT staff, related to implementing s. 373.413(6), F.S., including consideration of drafting rule language under Statewide ERP. The current draft of the proposed Statewide ERP rule only makes a reference to the statutory language. Since rulemaking is discretionary under the statute, it is proposed that a “design aid” be added to the Applicant Handbook in lieu of specific rule language. The current recommended design aid is as follows:

State linear transportation projects and facilities (collectively referred to as “projects” in this section) often have unique design limitations. In recognition of this, subsection 373.413(6), F.S. requires the Agency to consider and balance the expenditure of public funds for stormwater treatment with the benefits to the public in providing the most cost-efficient and effective method of achieving the treatment objectives of stormwater management systems when reviewing such projects. To accomplish this, alternatives to on-site treatment for water quality will be considered including regional stormwater treatment systems, off-site compensating treatment, and incorporation of off-site runoff into the treatment system for the project.

The incorporation or comingling of off-site runoff into the treatment system for the project is often a more cost effective design when compared to routing off-site runoff around the system. In most cases the comingling of off-site stormwater runoff into the system will also provide for increased pollutant removal when compared to the design option of routing it around the treatment system even if the treatment system is designed to only meet the design and performance standards of Volume II for the runoff from just the on-site project area. However, for undeveloped or unimproved offsite areas co-mingling into an onsite FDOT retention type treatment system, the design capacity of the on-site system may need to be evaluated in order to ensure that there is no harm to the existing conditions. Such instances should be evaluated on a case by case basis.

This design aid language is proposed as an addendum to the rule package and not a specific rule as part of Chapter 62-330, FAC (including the Applicant's Handbooks).

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