

Florida Policy and Innovations in Water Quality and Resilience

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Overview of Stormwater Management Requirements in Florida

- 1982 DER stormwater rule 17-25, F.A.C.
- 1986 SJRWMD Stormwater Rule 40C-42, F.A.C.
- 1991 SJRWMD updated rule
- 1993/95 MSSW, Stormwater, D&F merged into ERP
- 2003 Lake Apopka Basin Criteria
- 2013 Chapter 62-330 (SWERP)
- Present – Statewide Stormwater Rule



Overall Water Quality and Quantity Criteria for Issuance

2.0

(a) Will not cause adverse water quantity impacts to receiving waters and adjacent lands (62-330.301(1)(a), F.A.C.);

(b) Will not cause adverse flooding to on-site or off-site property (62- 330.301(1)(b), F.A.C.);

(c) Will not cause adverse impacts to existing surface water storage and conveyance capabilities (62-330.301(1)(c), F.A.C.);



Overall Water Quality and Quantity Criteria for Issuance

2.0

(e) Will not adversely affect the quality of receiving waters such that the water quality standards set forth in Chapters 62-4, 62-302, 62-520, and 62-550, F.A.C., (incorporated by reference in 40C-4.091(1)(c)) including the antidegradation provisions of paragraphs 62-4.242(1)(a) and (b), F.A.C., subsections 62-4.242(2) and (3), F.A.C., and Rule 62-302.300, F.A.C., and any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in subsections 62-4.242(2) and (3), F.A.C., will be violated (62-330.301(1)(e), F.A.C.);



Overall Water Quality and Quantity Criteria for Issuance

2.0

(e) Will not adversely affect the quality of receiving waters such that the water quality standards set forth in Chapters 62-4, 62-302, 62-520, and 62-550, F.A.C., (incorporated by reference in 40C-4.091(1)(c)) including the antidegradation provisions of paragraphs 62-4.242(1)(a) and (b), F.A.C., subsections 62-4.242(2) and (3), F.A.C., and Rule 62-302.300, F.A.C., and any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in subsections 62-4.242(2) and (3), F.A.C., will be violated (62-330.301(1)(e), F.A.C.);



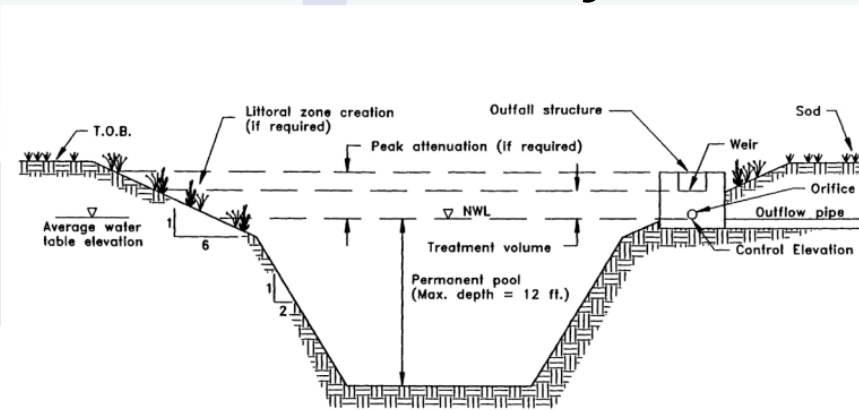
Overall Water Quality and Quantity Criteria for Issuance

- 2.0
- (i) Will be capable, based on generally accepted engineering and scientific principles, of being performed and of functioning as proposed (62- 330.301(1)(i), F.A.C.);



Presumptive Water Quality Criteria

- Various treatment volume, design and recovery requirements dependent on the stormwater BMP utilized
- Net-improvement required for direct discharges to impaired waters
- Creates rebuttable presumption that the water quality criteria for issuance has been met
- Provision for alternative treatment systems



Presumptive Water Quantity Criteria

- The post-development peak rate of discharge must not exceed the pre-development peak rate of discharge for specified storm events
- The post-development volume of direct runoff must not exceed the pre-development volume of direct runoff for specified storm events
- The elevation of any proposed streets and roadways and the first floor of any proposed building will be set at or above the elevation associated with the peak stage of the applicable design storm
- Creates a rebuttable presumption that the water quantity criteria for issuance has been met
- Provision for alternative discharge design criteria



Lake Apopka Rule

- shall demonstrate:
- (i) that the system provides stormwater treatment equivalent to or greater than any of the applicable stormwater treatment options contained in Table 13.7-1 for the removal of total phosphorus;
- (ii) that the post-development total phosphorus load discharged from the project area will not exceed the pre-development total phosphorus load discharged from the project area;

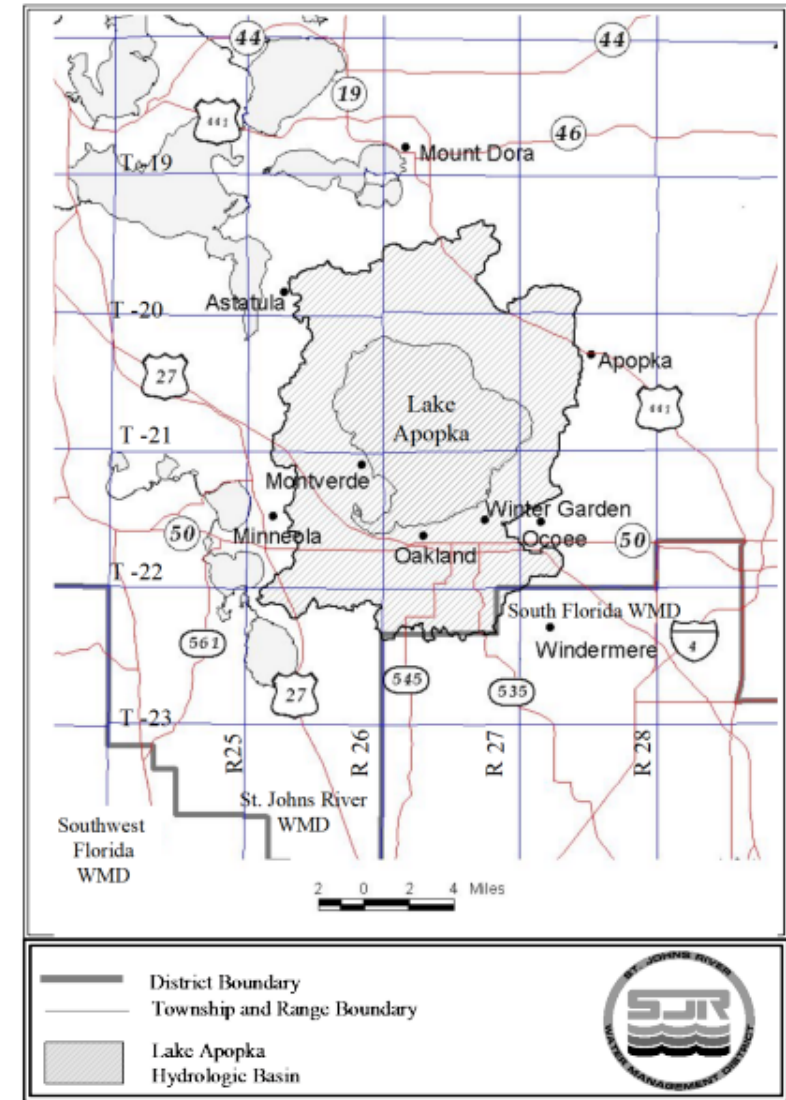


Figure 13.0-5 Lake Apopka Drainage Basin





New Stormwater Rule

- Removes all presumptive criteria
- Replaces with requirement to demonstrate the greater of:
 - The system reduces the average annual loading of TP and TN from the project site by specified %'s; or
 - The post-development condition average annual loading of nutrients does not exceed predevelopment condition nutrient loading ($\text{Post} \leq \text{Pre}$)



Evolution and Innovation

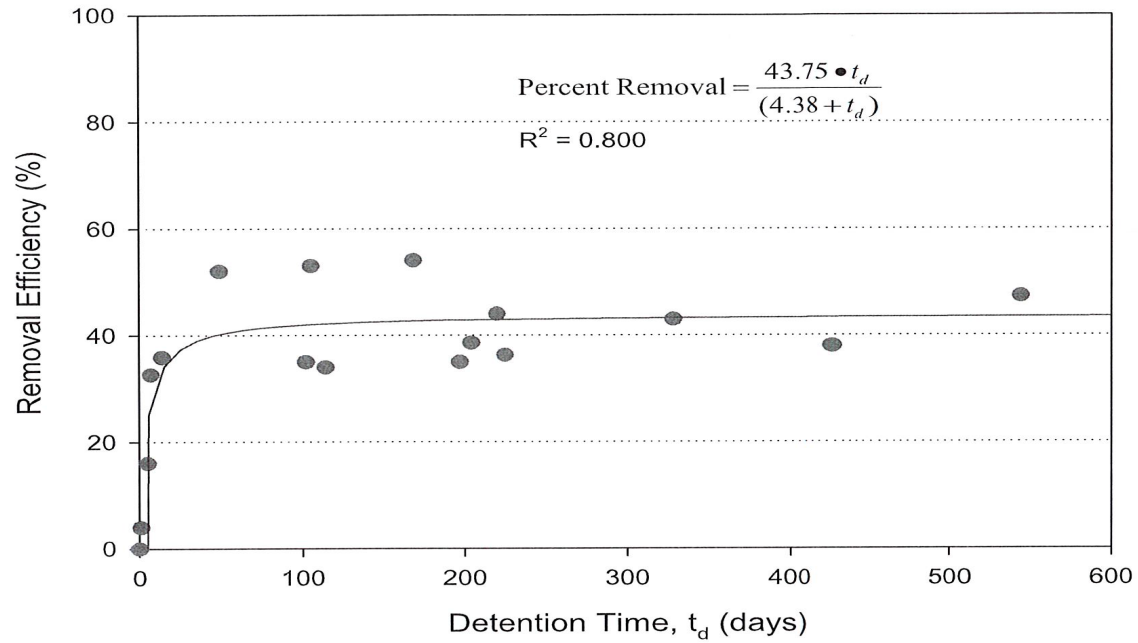
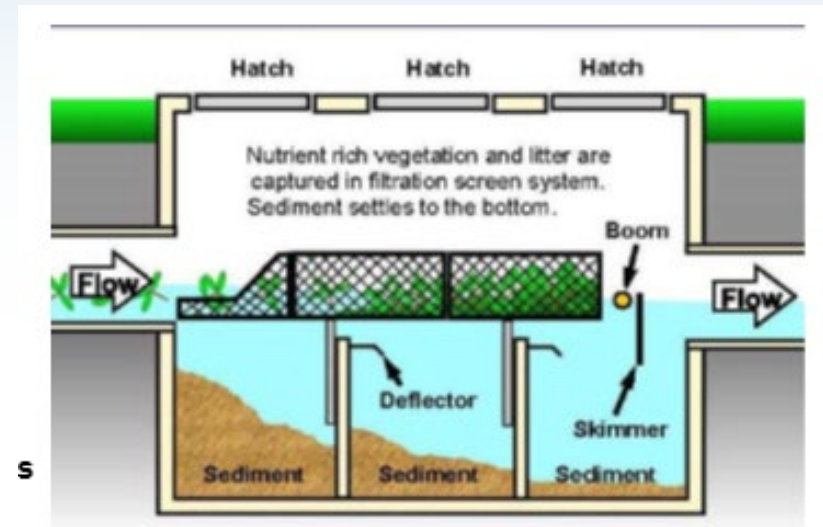
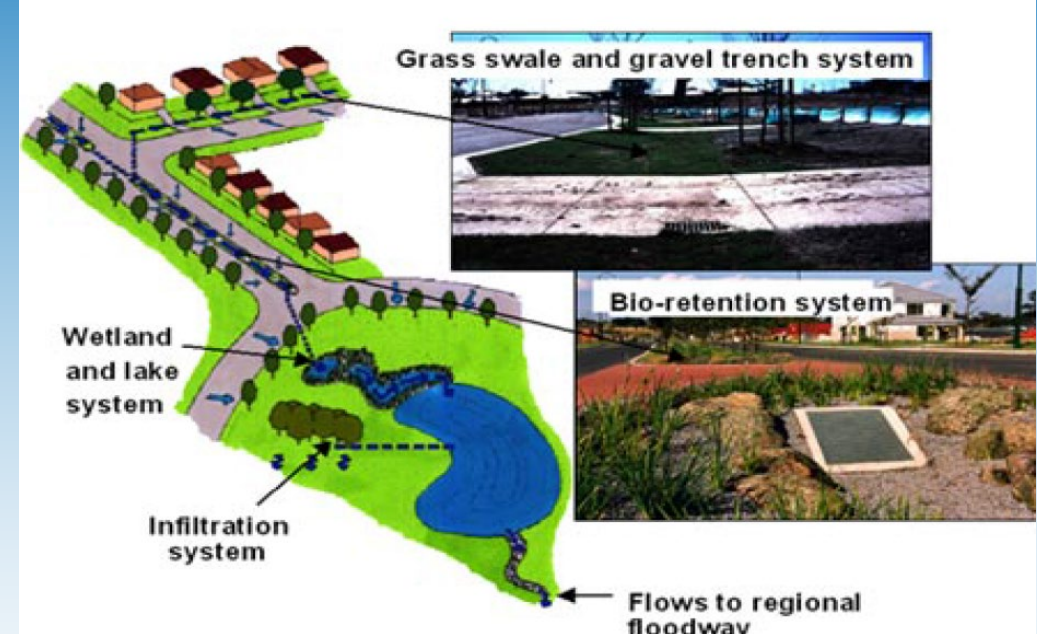


Figure 5-10. Removal Efficiency of Total Nitrogen in Wet Detention Ponds as a Function of Residence Time.



Bottom of concrete structure is only 4' below the pipe.



Alternative Criteria

An applicant can propose alternative BMPs.... These will be considered by the Agency as alternative designs and evaluated based on engineering plans, quality assurance plans, representative monitoring data in Florida, and test results for the specific site conditions of the project.

Applicants must provide reasonable assurance that their proposed alternative designs provide the level of treatment that they claim and that will achieve the required performance standards...



Reasonable Assurance

Alternative Designs may require:

- Monitoring – water quality, stage, discharge
- Plan “B” design
- Detailed O&M Plan



Stormwater as a Resource



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Thank You!

