

From: [Cynthia Henderson](#)
To: [Stormwater2020](#)
Cc: [CYNTHIA HENDERSON](#)
Subject: DEP Environmental Resource Permit Rulemaking
Date: Saturday, March 18, 2023 11:54:36 AM

EXTERNAL MESSAGE

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Attn: Stormwater2020

Pursuant to the Notice of Public Hearing, we are submitting pertinent evidence and a written request to consider an improvement to the Applicant's Handbook Volume I.

Division of Water Resource Management
Florida Department of Environmental Protection

Re: COMMENTS ON CLEAN WATERWAYS ACT RULEMAKING, CALL FOR CONSISTENCY

Dear John,

Our firm represents clients who are interested in achieving statewide consistency in pond side slope rule criteria. Currently, the 5 water management districts (WMDs) have differing rules on side slopes, without a natural or physical justification for the inconsistent criteria. These rules are all adopted by the Department for use when issuing permits within the geographic boundaries of the 5 WMDs. This means DEP is applying 5 different criteria for pond side slopes when issuing Environmental Resource Permits (ERP) (See Exhibit A below). Also, this criteria even differs, without a scientific or engineering basis, within one WMD, depending on whether a project is located on a golf course or non-golf course area. This violates the legislative mandate for statewide consistency in ERP rules.

The Legislature Requires Consistent Statewide ERP Regulations

Since 1993, the Legislature has mandated consistent statewide regulations in ERP rules. Subsection 373.414(9) Fla. Stat. requires:

373.414(9): The department and the governing boards, on or before July 1, 1994, shall adopt rules to incorporate this section, relying primarily on the existing rules of the department and the water management districts, into the rules governing the management and storage of surface waters. Such rules shall seek to **achieve a statewide, coordinated and consistent permitting** approach to activities regulated under this part. Variations in permitting criteria in the rules of individual water management districts or the department shall only be provided to address differing physical or natural characteristics.

In response to this legislative mandate, DEP and the WMDs did a stellar job of adopting consistent environmental criteria. However, despite this 30 year old mandate, consistent rules were not adopted for pond side slopes.

Then in 2012, the Legislature again required that DEP and the WMDs adopt consistent statewide regulations.

373.4131 Statewide environmental resource permitting rules:

(1) The department shall initiate rulemaking to adopt, in coordination with the water management districts, statewide environmental resource permitting rules governing the construction, alteration, operation, maintenance, repair, abandonment, and removal of any stormwater management system, dam, impoundment, reservoir, appurtenant work, works, or any combination thereof, under this part.

(a) The rules must provide for **statewide, consistent regulation of activities...**

(c) The rules must rely primarily on the rules of the department and water management districts in effect immediately prior to the effective date of this section, except that the department may:

1. **Reconcile differences** and conflicts to achieve a **consistent statewide approach**.

In response to this mandate, DEP and the WMDs did an excellent job adopting consistent statewide regulations on procedural issues in ERP Applicant's Handbook Volume I (AH I) and Chapter 62-330, Fla. Admin. Code. However, again, consistent statewide side slope criteria was not adopted.

DEP is now in the process of adopting statewide water quality and maintenance criteria pursuant to the requirements in the Clean Waterways Act, Senate Bill 712. However, this rule making process does not contain consistent requirements for pond side slopes. The purposes of vegetated side slopes include water quality treatment and maintenance. Therefore, it is important for DEP to adopt consistent pond side slope rules statewide in AH I. While pond depths may vary due to physical or natural conditions, there is no rational for inconsistent side slope criteria.

POND SIDE SLOPE RULES VARY GREATLY STATEWIDE

Side slope rules vary by WMD. In order to assure that there is consistent water quality treatment provided by vegetated side slopes, and consistent ability to maintain vegetated side slopes, there must be a uniform 4:1 or 3.5:1 horizontal/vertical (h/v) criteria statewide, with the ability use fencing as an alternative when a 4:1 or 3.5:1 h/v design is demonstrated to be impractical. The rule adopted by Suwannee River Water Management District addresses these goals. It states:

4.5.1 Side Slopes: Side slopes shall be designed with a horizontal to vertical **ratio no steeper than 4:1** to a depth at least two feet below the control elevation and must be stabilized with vegetation to prevent erosion and provide pollutant removal. Side slopes may be designed with steeper than 4:1 side slopes provided the slopes have adequate temporary and permanent erosion and sediment control BMPs. Systems may be fenced if the slopes must be steeper than 4:1 due to space limitations or other constraints.

Currently, side slope requirements vary by WMD and even vary within WMDs themselves. South Florida Water Management District (SFWMD), for example, allows 3 different criteria on the same pond. The standard SFWMD slope requirement is 4:1 to 3.5:1 h/v. However, SFWMD allows a unique, much steeper side slope for golf courses. This unique criteria is 2:1 h/v with no justification based on physical or natural characteristics and no justification based on sound engineering or scientific rational. SFWMD allows a third alternative in the form of a 90 degree bulk head for 40% of the pond. The 3 different criteria are not rational and there is lesser water quality treatment when the vegetated slope is only 2:1 h/v slope, compared to 4:1 or 3.5:1 h/v. This violates criteria violates the legislative mandate for consistency, because there is no basis for the difference in criteria throughout the state or within the same WMD's rules.

The attachment sets forth the rules of each WMD. In order to have consistent water quality and maintenance rules, DEP should include, in its current rulemaking, the Suwannee River rule as a consistent statewide requirement. I am happy to answer any questions.

Respectfully Submitted,

Cynthia Henderson
Cynthia A Henderson, PA
cyhenderson@me.com
(850) 559-0855

Exhibit A

INCONSISTENT WATER MANAGEMENT DISTRICT SIDE SLOPE RULES

SUWANNEE RIVIER WATER MANAGEMENT DISTRICT

4.5.1 Side Slopes: Side slopes shall be designed with a horizontal to vertical **ratio no steeper than 4:1** to a depth at least two feet below the control elevation and must be stabilized with vegetation to prevent erosion and provide pollutant removal. Side slopes may be designed with steeper than 4:1 side slopes provided the slopes have adequate temporary and permanent erosion and sediment control BMPs. Systems may be fenced if the slopes must be steeper than 4:1 due to space limitations or other constraints.

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT (NFWFMD)

2.6.1 Side Slopes: Detention, retention, and normally dry basins that are capable of impounding more than two feet of water, must contain side slopes that are **no steeper than 4H:1** (horizontal to vertical) extending to a depth of 2 feet below the control elevation. As an **alternative, the basins can be fenced or otherwise restricted** from public access if the slopes must be deeper due to space limitations or other constraints.

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD)

8.12 Pond Side Slopes: The pond must be designed so that the average pond side slope measured between the control elevation and two feet below the control elevation is **no steeper than 3:1** (horizontal:vertical).

SJRWMD side slope criteria is somewhat confusing because in section 2.6.1 of the same applicant's handbook, SJRWMD requires side

slopes no steeper than 4H:1V for basins, but 3:1 for ponds. Fencing or other public access restrictions are allowed as an alternative.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)

5.4.1 Dimensional Criteria (as measured at or from the control elevation). ...

c. Side slopes: for purposes of public safety, water quality treatment and maintenance, all retention or detention areas should have stabilized side slopes **no steeper than 4:1** (horizontal: vertical) out to a depth of two feet below the control elevation. Except as provided for in paragraph 5.4.1(d), constructed side slopes steeper than 3.5:1 (horizontal: vertical) shall be considered a substantial deviation from the permitted design.

d. For purposes of public safety, side slopes designed or permitted **steeper than 4:1 will require a six foot chain link fence or other protection** sufficient to prevent accidental incursion into the retention or detention area....

SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD)

5.4.2 Wet Retention/Detention Area Dimensional Criteria (As Measured at or from the Control Elevation)

(d) Side slopes for wet retention/detention and attenuation areas - for purposes of public safety, water quality enhancement and maintenance, all wet retention /detention areas shall be designed with side slopes no steeper than **4:1** (horizontal:vertical) from top of bank out to a minimum depth of two feet below the control elevation, or an equivalent substitute. Constructed side slopes **steeper than 3.5:1** (horizontal:vertical) shall be considered a substantial deviation during the consideration of operation permit issuance. Side slopes shall be topsoiled, and stabilized through seeding or planting from 2 feet below to 1 foot above the control elevation to promote vegetative growth. Side slope vegetation growth survival shall be a consideration of operation permit issuance. Side slope dimensional criteria for above ground impoundments are set forth in Appendix B.

(e) **Alternative Side Slope Criteria for Golf Course Wet Retention/Detention Areas Adjacent to Tee Areas, Bunkers, and Greens** - The design and final constructed side slopes adjacent to tee areas, bunkers, and greens contiguous to golf course wet retention/detention areas shall be **no steeper than 2:1** (horizontal:vertical) for the area above the permitted control elevation. For purposes of this rule, the tee area is limited to an area specifically constructed and designated as the location from which a golfer makes his/her first shot toward a designated hole. The green is the area of shortest grass around the hole. Bunkers (sand traps) consist of a prepared area of ground, often a hollow, from which turf or soil has been removed and replaced with sand-like material. For those portions of the wet retention/detention areas adjacent to tee areas, bunkers, and greens with final constructed side slopes steeper than 3.5:1 (horizontal:vertical), the final constructed side slopes below the control elevation shall not be steeper than 8:1 (horizontal:vertical) to a depth of two feet below the control elevation or equivalent substitute. Side slopes shall be topsoiled and stabilized through seeding or planting from 2 feet below to 1 foot above the control elevation. Side slope vegetation growth survival shall be a consideration of operation permit issuance.

(f) **Bulkheads** - Bulkheads shall be allowed for no more than **40 percent of the shoreline** length, but compensating littoral zone must be provided based on ENVIRONMENTAL RESOURCE PERMIT APPLICANT'S HANDBOOK VOLUME II Effective: MAY 22, 2016 28 AH VOL. II (MAY 22, 2016) appropriate maximum allowable side slope including local government requirements.