

# ***Statewide Stormwater Rule Development Update***

**Presentation to the  
ASCE Central Florida Chapter**

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# *History of Stormwater Regulation in Florida*

- 1972 – Clean Water Act, provided for research into and regulation of both point and nonpoint pollution
- 1972 – Florida Water Resources Act (Chapter 373, F.S.)
- 1967 – Florida Air and Water Pollution Control Act (Chapter 403, F.S.)
- Late 1970's – DER regulation of nonpoint pollution using rule 17-4, F.A.C. (general rule prohibiting pollution)
- 1982 – DER stormwater rule 17-25, F.A.C.
- 1986 – SJRWMD stormwater rule 40C-42, F.A.C.
- 1991 – SJRWMD stormwater rule, 40C-42, F.A.C. updated
- 1993/1995 – Regulatory streamlining – MSSW, stormwater and dredge and fill permitting merged into ERP
- Late 1990's – DEP accepts delegation from EPA for NPDES regulation of stormwater
- 2003 - SJRWMD adopts basin criteria for Lake Apopka to require “no increase” in total phosphorus in stormwater discharges to Lake Apopka
- Also this decade – Implementation of TMDLs and plans to reduce nonpoint pollution to restore water quality for specific waters



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# ***Current Regulation of Stormwater Quality***

- NPDES (federal Clean Water Act) regulation of nonpoint sources implemented by FDEP
- ERP regulations in Florida implemented by FDEP and Water Management Districts
  - DEP and WMDs divide responsibility for implementation of ERP program through operating agreement
  - ERP rules on stormwater management vary between water management districts



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# *How do current stormwater regulations work?*

- Must meet state water quality standards
  - Water quality standards adopted by ERC
  - EPA role in approving water quality standards
- WMD/DEP rules establish design standards for stormwater management systems
  - Design systems for specified amount of retention, detention, etc., set forth in rule
  - Meeting design standards provides presumption of compliance with water quality standards
- For waters which do not currently meet water quality standards, new discharges are not allowed to contribute to the existing water quality violation
  - Mitigative measures must cause a net improvement in water quality for the constituents of concern



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# Current Issues with Stormwater Regulations

- NUTRIENTS, NUTRIENTS, NUTRIENTS
  - Existing “design” standards were developed in the 1980s to reduce stormwater pollution by 80 to 95% and to meet water quality standards
    - 80% reduction for class III waters
    - 95% reduction for class I, II and OFW waters
  - These reductions were based upon EPA funded research into performance of stormwater treatment systems for a number of constituents
  - At that time the primary concern was metals, which can be toxic to humans and wildlife
    - Generally stormwater treatment design standards were very effective in reducing heavy metals in discharges of stormwater
  - It has always been recognized that stormwater BMPs (design standards) did not reduce nutrients by 80 to 95%. However, it was not known whether these nutrient discharges resulted in water quality violations.
  - In the 1990s, nutrient pollution of surface waters became widely recognized
    - There are no numeric standards for nutrients
    - Nutrients come from natural sources, permitted point sources, permitted nonpoint sources and existing “grandfathered” nonpoint sources.
      - Which is the culprit?
      - Are more stringent design standards needed to prevent additional waterbodies from being polluted?
    - Thus a considerable waterbody specific evaluation is needed to establish limits



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# Lake Apopka example

- The SWIM act of 1986 required development of a restoration plan for Lake Apopka.
- The planning effort resulted in recommendations for nutrient reduction in the mid 1990s, but due to legal challenges the final enactment of special basin rules for Lake Apopka occurred in 2003.
- The Lake Apopka restoration plan has three major components:
  - Reduce TP through “in lake” activities
    - Shad harvest
    - Wetland flowway
  - Reduce TP coming from muck farms
    - Purchase lands
    - Restore historic floodplain wetlands
  - Prevent increase discharge of TP for new development



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# Other issues around the state

- In SW coastal area environmental groups were challenging permits on basis that the current stormwater treatment requirements are not adequate to prevent water quality violations
  - SFWMD, EPA, USACE, FDEP were all pulled into this regional legal battle
  - SFWMD developed guidelines for more stringent treatment that applicants could voluntarily follow to avoid these legal entanglements
  - As a result, SFWMD agreed to amend their current stormwater treatment requirements to address nutrient discharges
- FDEP has been developing TMDLs for waterbodies around the state
  - Allocations of pollutants are being made for existing and future sources
  - More advanced stormwater treatment is one option for addressing waterbodies which are currently polluted
- FDEP has agreed to develop a statewide numeric nutrient standard
  - EPA is obligated to develop a numeric nutrient standard for Florida as a result of the settlement of a lawsuit
  - FDEP volunteered to adopt the standard
  - If FDEP cannot adopt rule by a date certain, then EPA will do it
  - This proposed rule is still in development and is still changing. There is a new draft out there. FDEP plans to have a public workshop in Marco Island in late July and another meeting with their Technical Advisory Committee (TAC), before publishing a rule for adoption.



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# Statewide Stormwater Rule Development

- FDEP and the WMDs have been developing amendments to our existing stormwater rules to address nutrients
- While this rule is still in development, it is safe to say that it will result in significant increases in treatment requirements in many situations
- Current concepts being considered in the draft rule include:
  - Requiring stormwater treatment systems to reduce both phosphorus and nitrogen by 85% (for discharges to class III waters) or
  - Maintaining predevelopment nutrient discharges, where predevelopment is based upon undeveloped condition (woodland)
  - Whichever is less stringent
  - BMPs are being developed for pervious pavement and Low Impact Development (LID)
- Issues still being discussed
  - Whether the standards listed above are water quality standards that require approval of the ERC and the EPA
  - Whether the standards listed above will be adequate based upon the new statewide numerical nutrient water quality standards being developed
  - How to address redevelopment



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# Statewide Stormwater Rule Development

- Typical BMP's
- Newer BMP's
- LID
- Chemical
- Retrofit
- Karst
- O&M
- Rule Development schedule
  - In addition to last year's TAC meetings, additional TAC meetings held in July, Aug., & Sept., '09 in Orlando
  - 3<sup>rd</sup> draft of the Rule and Applicant's Handbook to be posted in late Nov./early Dec.
  - Public Workshops at 8 cities to be held in Jan. & Mar./Apr. 2010
  - Rule adoption – May, 2010
  - Rule effective – July, 2010



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Questions or comments?



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