

Southwest Florida Regional Planning Council

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November 18, 2010

Mike Thomas, Ph.D., P.E.
Nonpoint Source Management Section
Bureau of Watershed Restoration
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
MS 3570
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

RE: 2010 FDEP MODEL ORDINANCE FOR FLORIDA-FRIENDLY USE OF FERTILIZER ON URBAN LANDSCAPES

Dear Mr. Thomas:

The Lower West Coast Watershed Implementation Committee of the Southwest Florida Regional Planning Council has reviewed the revised FDEP Model Fertilizer Ordinance and the associated documents. We have the following comments and recommendations:

- In DEFINITIONS "Prohibited Application Period" is insufficiently protective of surface waters in relation to nutrient run-off from over fertilized areas during the summer wet seasons in southwest Florida.
- The meteorological definition of heavy rain is 0.3 inches or 0.8 cm in one hour. There is no existing scientific study that concludes that storm water runoff or leaching of applied fertilizer occurs only after a continuous rainfall of 2 inches (5.1 cm) or more falls within a 24-hour period.
- Surface runoff is the water flow that occurs when soil is infiltrated to full capacity or saturated to full capacity and excess water from rain or other sources flows such as man-made irrigations over the land. This is a major component of the hydrologic cycle.

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- Infiltration excess overland flow occurs when the rate of rainfall on a surface exceeds the rate at which water can infiltrate the ground, and any depression storage has already been filled. This is called infiltration excess overland flow, Hortonian overland flow (after Robert E. Horton), or unsaturated overland flow. This more can commonly occurs in sub-tropical conditions of south Florida and on clay and marl soils, where rainfall intensities are high and the soil infiltration capacity is reduced because of surface sealing, or in paved areas. This also occurs largely in urban and suburban areas where pavements and impervious building surfaces prevent water infiltration.
- Saturation excess overland flow occurs when the soil is saturated and the depression storage filled, and rain continues to fall, the rainfall will immediately produce surface runoff. (Note in the photo to the left the microdepressions are full of water as seen in the lower left of the image.) The level of antecedent soil moisture is one factor affecting the time until soil becomes saturated. This runoff is saturation excess overland flow or saturated overland flow.
- Inundation of soil capacity in southwest Florida during the rainy season is cumulative with regular and periodic rain events that will achieve saturation even without any single heavy rainfall event. Subsequently after a series of light rainfall events that next light rain fall can run off of a saturated soil. Urban stormwater events are triggered by much lower rainfall amounts than 2-inches in all of Florida's geographic regions.
- Prohibiting application prior to "likely" "heavy" rain (rather than some lesser amount and lesser probability of precipitation) is less protective than existing stormwater ordinances that account for the cumulative effects of wet season soil saturation and impedance of infiltration. This is why we recommend a regionally set season of limited to no application of water soluble fertilizers.
- In APPLICABILITY Guidance, the inclusion of *s. 403.067* language to make clear that the Model is the "minimum" standard to be adopted is appropriate. The guidance following the fact that local governments may adopt additional or more stringent provisions to the model ordinance as provided in 403.9337(2) contains significant editorial comment expressing opinion. Inclusion of these statements is unacceptable. It

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seems to imply that over-fertilization could be authorized under the purview of Florida-friendly landscaping; as a response to a water shortage order as authorized; or under a consumptive water use permit. We specifically object to the idea that non-regulatory advisory groups have veto over local government sovereignty in rule making. It would be best to just reference the rule and leave the inaccurate guidance out of the model ordinance.

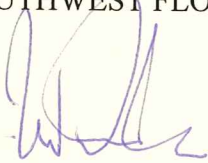
- In TIMING OF FERTILIZER APPLICATION (page 6) the addition of “or to saturated soils” is an improvement. In addition, the modified *Guidance* content is improved.
- Contrary to 16 years of FDEP and UF/IFAS recommendations found in numerous FDEP and UF/IFAS publications, the revised Model excludes mention of the recommendation to use iron instead of nitrogen fertilizer during the summer. This very important recommendation belongs in the TIMING OF FERTILIZER APPLICATION *Guidance* section.
- In FERTILIZER FREE ZONES (page 7); the Model’s inclusion of a 3-foot fertilizer-free zone when a deflector shield is used is in direct conflict with FDEP, UF/IFAS and Water Management District recommendations. There is no documented reason for, and no science supporting, the inclusion of a 3-foot fertilizer-free zone. The revised Model should be consistent with the *Florida Yards and Neighborhoods Handbook* SP 191 / Bulletin 295 and *Fertilizer Facts* (SWFWMD Website 2010) and provide guidance to “Leave a 10-foot no-pesticide, no-fertilizer zone around water bodies”.
- In FERTILIZER CONTENT AND APPLICATION RATES (page 7), consistency with current FDEP and UF/IFAS recommendations in regard to the application rate for readily available nitrogen and recommendations to use slow-release fertilizers should be included. Language should also be added to recommend consistency with the Florida Yards & Neighborhoods Handbooks regarding application rates.

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The SWFRPC supports the provision of a draft Model fertilizer ordinance for use by local governments. We object to language including guidance that preempts or prevents local government from doing what is necessary to protect water quality in their area. The SWFRPC demands that the above recommendations be utilized in order to bring the revised Model into consistency with the available scientific literature and the published recommended standards of FDEP, UF/IFAS and Water Management District

Sincerely,

SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL



Mick Denham
Chair

CC: Southwest Florida Legislative Delegation
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