



*Protecting Southwest Florida's unique natural environment and quality of life ... now and forever.*

October 24, 2017

City Council Members

City of Naples

735 8<sup>th</sup> St. S.

Naples, FL 34102

Bill Moss, City Manager

City of Naples

735 8<sup>th</sup> St. S.

Naples, FL 34102

Dear City Council Members and Mr. Moss:

The Conservancy of Southwest Florida writes on behalf of over 7,000 supporting families regarding the City's recent changes to the Fertilizer Use ordinance. As you know, on October 4, 2017 the Council made changes to the ordinance Naples has had in place since 2008. We apologize we were not able to provide our input during the hearing process, as we were not aware of the proposed changes. However, we are concerned about the changes that were made.

Naples' fertilizer ordinance was the first of its kind when it was adopted in 2008, and was fully supported by the Conservancy of Southwest Florida. Since that time, the City's ordinance was utilized as a template by over 90 local governments that have adopted similar ordinances, including nearly all of your neighbors in southwest Florida from Marco Island to Punta Gorda and beyond. The City of Marco Island approved the gold standard of fertilizer ordinances in March 2016 due to declining water quality in the area. Some of the major components of a strong ordinance include a calendar-based rainy season ban and a cap on the application of the amount of nitrogen. These critical aspects have been eliminated in the recent changes by Council.



Conservancy of Southwest Florida has been awarded Charity Navigator's prestigious 4-Star top rating for good governance, sound fiscal management and commitment to accountability and transparency. Charity Navigator is America's largest and most respected independent evaluator of charities.

Many of these ordinances have been adopted since the Florida State Model Ordinance was available in 2009. The State Model Ordinance is intended to be the floor -not the ceiling- for ordinances; local governments may adopt more protective measures:

*Fl. Stat. §403.9337 "Each county and municipal government located within the watershed of waterbody or water segment that is listed as impaired by nutrients pursuant to s. 403.067, shall, **at a minimum**, adopt the department's Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes"*

A more protective ordinance can be adopted by the City to address local conditions, including quality of local water bodies, which within the City of Naples includes water bodies impaired for dissolved oxygen where the causative pollutant is nutrients:

*Fl. Stat. §403.9336 "local conditions, including variations in the types and quality of water bodies, site-specific soils and geology, and urban or rural densities and characteristics, may **necessitate the implementation of additional or more stringent fertilizer management practices at the local government level**"*

In order to address local conditions, the City only needs to *consider* the input from the state agencies in its decision-making process and place information for ordinance changes on the public record. It does not need to adhere to the State Model Ordinance, which again is intended to be the minimum standards, not necessarily the standards that are needed to address local concerns. The state does not pre-empt the City from adopting the standards it desires to protect our water quality:

*Fl. Stat. §403.9337 "A local government may adopt additional or more stringent standards than the model ordinance if the following criteria are met... The local government documents that it has considered all relevant scientific information, including **input** from the department, the institute, the Department of Agriculture and Consumer Services, and the University of Florida Institute of Food and Agricultural Sciences, **if provided**, on the need for additional or more stringent provisions to address fertilizer use as a contributor to water quality degradation. All documentation must become part of the public record before adoption of the additional or more stringent criteria"*

While we understand the City's desire not to 'duplicate' the state certification process, we ask that the City consider reinstating important ordinance language that is not duplicative of the state. This includes adding back in the rainy season ban and placing a cap on the amount of

nitrogen that can be applied to turf. These are the original components of the 2008 ordinance that have been removed.

Thank you for retaining the 10-foot fertilizer free zone and 50% slow release nitrogen in the ordinance. Additionally, infusing some aspects of the State Model Ordinance are improvements (i.e. including information about reclaimed water, referencing the state certification process, not allowing fertilizer application prior to storms, and management of grass clippings).

One of the cited reasons for changing the fertilizer ordinance was for cost savings. Prevention of pollutants into our waterways is the best way for the City to achieve cost savings. Once in the environment, it is difficult and costly to remove. The following ordinance improvements would help protect water quality, improve enforcement opportunities, and can be done without reducing the City's efforts to educate citizens and applicators.

#### Support for 4 lb Cap on Fertilizer Application Per Year

IFAS studies and the Urban Turf Rule<sup>1</sup> support an application rate of **2 to 4 pounds of nitrogen** (per 1000 square feet per year) for a healthy lawn of Bahia, Centipede, St. Augustine, and Zoysia grasses. However, the City's new ordinance **allows for fertilizing up to 6 lbs of nitrogen** per 1000 square feet per year for some of these grasses.

Note that the Urban Turf Rule is based on turf grass science, and does not consider the nutrient load maximums that may adversely impact local waterbodies. The Turf Rule shows that south Florida turf grasses can be healthy with a cap of 4 lb. of nitrogen per year.

Furthermore, these nitrogen recommendations do not reflect nitrogen inputs that may be received from rain or from use of reclaimed water. Use of reclaimed water on a Collier County administrative grounds test plot showed that some sources of reclaimed water contain enough nitrogen not only to meet the landscape needs but also at rates that are higher than the state water quality standard indicating pollution-level concentrations.<sup>2</sup>

**In order to avoid over-fertilization, the Conservancy supports placing a cap on the annual amount that can be applied to 4 lbs. as was in the City's original ordinance.**

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<sup>1</sup> 5E-1.003, F.A.C.

<sup>2</sup> Cisar, December 9, 2011. Collier County Fertilizer Project. Final Report.

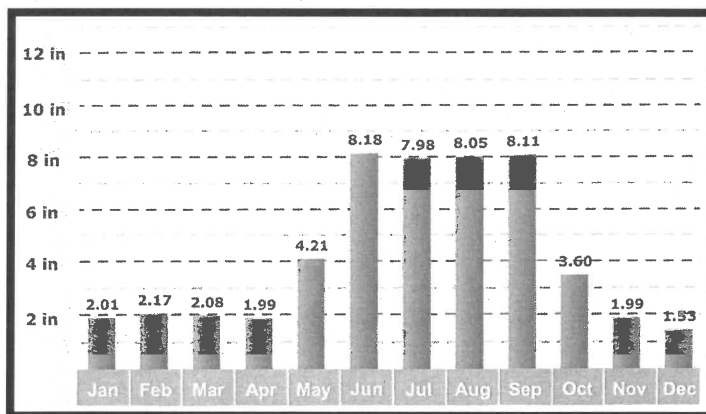
### Support of the Rainy Season Prohibition

The State Model Ordinance only prohibits fertilizing during major storm events, such as floods, hurricanes, or tropical storms, or when rain fall is expected to be more than 2 inches<sup>3</sup>.

However, there is scientific support for prohibiting fertilizer application during other times of the year when rainy weather is likely and predicting weather day-to-day can be difficult.

A blackout period during the summer rainy season would address frequent rainstorms washing fertilizer into adjacent waterbodies during the typical rainy season. The rainy season in the Naples area is generally from June through September with 32.3 inches, or 62%, of average annual rainfall falling within this period (see Figure 1). DEP has stated that, of all places in Florida, the prohibition for rainy season application makes the most sense for southwest Florida, considering its fairly normal rain cycles<sup>4</sup>.

Figure 1 Average Precipitation<sup>5</sup>



Furthermore, limiting prohibitions to rainfall events greater than 2 inches, severely limits the ability to control runoff during the most common rain events. About half of southwest Florida's rain events contribute greater than an inch of rain to the landscape (see Figure 2), however only 3 to 5% of Florida's rain events exceed two inches<sup>6</sup>.

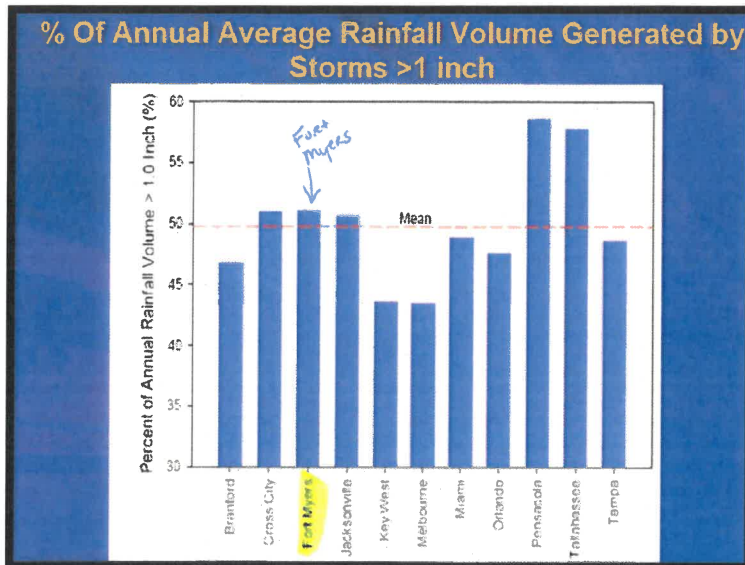
<sup>3</sup> DEP, January 2009. Florida-Friendly Landscape Guidance Models for Ordinances, Covenants, and Restrictions.

<sup>4</sup> Personal communication, October 13, 2009. Michael Thomas, DEP, phone.

<sup>5</sup> The Weather Channel.

<[http://www.weather.com/outlook/travel/vacationplanner/wxclimatology/monthly/graph/USFL0302?from=36hr\\_bottomnav\\_vacation](http://www.weather.com/outlook/travel/vacationplanner/wxclimatology/monthly/graph/USFL0302?from=36hr_bottomnav_vacation)>. Accessed October 23, 2009.

<sup>6</sup> DEP, 2008. Florida Friendly Best Management Practices for Protection of Water Resources by the Green Industries. P. 30.

Figure 2 Annual Average Rainfall Volume By Florida Location<sup>7</sup>

Application of (urea) fertilizer followed by rainfall of an inch or greater within 8-12 hours, may cause nitrogen to “move below the turfgrass root zone because of its non-ionic nature and be lost through leaching.”<sup>8</sup> Many sources, including studies from IFAS, can be utilized to support the prohibition for rainy season application. “Fertilization with N in the summer is not always desirable since this often encourages disease and insect problems.”<sup>9</sup> Instead, a slow-release fertilizer could be applied before June 1<sup>st</sup> and provide steady nutritional aid during the black-out period while decreasing risk of disease and insect infestation. While many Florida-based companies have been making “summer-safe” blends for many years, in 2015, the Scotts company announced the availability of “Smarter Solutions for Cleaner Waterways Initiative” product that does not contain nitrogen or phosphorous for use on lawns in the summer rainy season, meaning that these safer products are readily available.<sup>10</sup>

Additionally, grass clippings outside of the buffer zone can be utilized to provide nutrients to turf during the rainy season application prohibition. Grass clippings are a significant source of nitrogen that will improve soil fertility over time and reduce the need for nitrogen fertilization

<sup>7</sup> Thomas, DEP. Nonpoint Source Management Section Presents Florida’s Urban BMPs: Homeowners, Landscaping, Golf, and the Future of Stormwater. Powerpoint.

<sup>8</sup> DEP, 2008. Florida Friendly Best Management Practices for Protection of Water Resources by the Green Industries. P. 26.

<sup>9</sup> IFAS, 2007. General Recommendations for Fertilization of Turfgrasses on Florida Soils. Soil and Water Science Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida.; Elliott and Harmon, 2014. Turfgrass Disease Management. SSPLP14.

<sup>10</sup> Scotts Miracle-Grow, July 15, 2015. Scotts Launches New Florida-Friendly Lawn Supplement in Key Test Markets. Scotts Smarter Solutions for Cleaner Waterways Initiative Brings Lawn Response Nitrogen and Phosphorous Free Product to Florida.

by up to 50% without a decrease in turf grass quality.<sup>11</sup> Publications throughout the country provide evidence that up to 1 to 2 pounds of nitrogen per 1000 sq ft can be provided back to lawns from decomposed grass clippings.<sup>12</sup> As you are aware, more grass clippings are produced in our rainy season than any other time of the year.

A black-out period is unlikely to effect the ability to fertilize during the active growing season, since that is often year-round in south Florida.<sup>13</sup> The science that was cited during the hearing by staff that seems to actually encourage fertilization in the summer rainy season is more applicable to other parts of the United States where there is a notable cold-weather season. As IFAS has acknowledged, in south Florida the growing season may be all year round.

A summer rainy season ban is complimentary to education and enforcement efforts. This more stringent ordinance language, which has become the southwest Florida standard, can also assist with enhanced enforcement and implementation. For example, a calendar-based rainy season application period is easier to follow for both the professional applicator and the average homeowner than the State Model language which relies on metrological predictions of weather events (e.g. will there be over 2" of rain within the next 24-hours).

Additionally, having a 4 lb. cap on nitrogen is also easier to implement, since the current ordinance refers readers to a matrix nestled in the Florida Administrative Code to determine the allowable application rates.

### Conclusion

The City of Naples Fertilizer ordinance can be updated without gutting critical aspects needed to protect water quality. The Naples Bay Water Quality and Biological Analysis Project conducted by the City found that the 2008 version of the fertilizer ordinance seemed to have a positive effect on water quality. This report stated that "since the fertilizer ordinance restricts wet season application of fertilizer, when stormwater runoff to the Bay is expected to be the highest, we conducted an additional Kendall Tau trend analysis.... Because the majority of declining trends in wet season Total Nitrogen are shown for periods after 2008, the results may indicate that implementation of fertilizer ordinance in 2008 is a contributing factor for the decrease TN trend observed in Naples Bay."<sup>14</sup>

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<sup>11</sup> IFAS, 2006. Florida Yards and Neighborhoods Program Handbook.

<sup>12</sup> Swift, 1996. Updated 2009. Colorado State University Extension.

<sup>13</sup> Trenholm, et al., 2014. St. Augustine for Florida Lawns. IFAS.; Trenholm, et al., 2017. St. Augustinegrass for Florida Lawns. IFAS.

<sup>14</sup> Cardno, 2015. Naples Bay Water Quality and Biological Analysis Project. Prepared for City of Naples. P. 6-1 and 6-2.

Given the Conservancy's findings that the water quality in City of Naples still, however, ranked poorly in our Estuaries Report Card (grade of D-)<sup>15</sup> and has existing impairments, we hope you will consider reinstating, at minimum, these two aspects into your ordinance.

Please consider the Conservancy a resource in regards to fertilizer ordinances, as we have been very engaged in this issue for over ten years. We would be happy to meet with City staff and other interested parties regarding these recommendations. Feel free to contact me at (239) 262-0304 ext. 286 if you have any questions or would like to discuss further.

Sincerely,



Amber Crooks  
Senior Environmental Policy Specialist

Cc: Stephanie Molloy, Natural Resources Manager, City of Naples

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<sup>15</sup> <https://www.conservancy.org/our-work/policy/estuaries-report-card>