

**ORDINANCE NO.                    2021-4392**

**AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING CHAPTER 46 OF THE MIAMI BEACH CITY CODE, ENTITLED "ENVIRONMENT," TO CREATE ARTICLE IX THEREOF, TO BE ENTITLED "USE OF FERTILIZER," RELATING TO FLORIDA FRIENDLY FERTILIZER USE WITHIN THE CITY OF MIAMI BEACH, PROVIDING FOR DEFINITIONS, APPLICABILITY, TIMING OF FERTILIZER APPLICATIONS, FERTILIZER FREE ZONES, FERTILIZER CONTENT AND APPLICATION REQUIREMENTS, AND MANAGEMENT OF VEGETATIVE MATTER, OUTLINING CERTAIN EXEMPTIONS, REQUIRING TRAINING AND LICENSING, PROVIDING ENFORCEMENT AND PENALTIES; AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.**

**WHEREAS**, the City of Miami Beach is a barrier island surrounded by the Atlantic Ocean, the Biscayne Bay Aquatic Preserve, and an interconnected system of waters that provide habitat for fish and wildlife, opportunities for recreation, and an enhanced quality of life; and

**WHEREAS**, Biscayne Bay is historically an oligotrophic estuary that's ecosystem depends on low-nutrient levels; and

**WHEREAS**, excess nutrients such as nitrogen and phosphorus that are found in fertilizers can pollute waterways and cause environmental problems including but not limited to sea grass die off and algae blooms; and

**WHEREAS**, the Nation Weather Service estimates South Florida's average summer rainy season produces 69% of the annual precipitation and the median date of the beginning of the season to be May 21 and October 17 for the ending of the summer season; and

**WHEREAS**, the highest high tides of the year occur from August through November, causing tidal flooding; and

**WHEREAS**, the detrimental effects of nutrient-laden runoff are magnified in a coastal community such as Miami Beach, due to the proximity of stormwater and drainage conveyances to coastal waters; and

**WHEREAS**, pursuant to Section 403.0885, Florida Statutes, and rules promulgated thereunder, the City's National Pollutant Discharge Elimination System ("NPDES") permit FLS000003 authorizes Miami-Dade County and 32 municipal co-permittees including the City of Miami Beach to discharge stormwater to waters of the State in accordance with the approved stormwater management program, effluent limitation, and monitoring; and

**WHEREAS**, part of the stormwater management program is compliance with pollution prevention measures, treatment or removal techniques, stormwater monitoring, use of legal authority, and other appropriate means to control the quality of permitted stormwater discharge; and

**WHEREAS**, in 2016 the City of Miami Beach initiated a water quality sampling program to monitor various water quality and Bay Health indicators to augment the water quality sampling program conducted by Miami-Dade County; and

**WHEREAS**, the 2019 Annual Water Quality Report found that five of the 35 sample locations exceeded total nitrogen numeric nutrient criteria and all sampling locations total phosphorus exceeded the numeric nutrient criteria for Southern North Bay; and

**WHEREAS**, on December 10, 2020, Miami-Dade County released *Report on Development and Implementation of an Annual Report Card Program on the Health of Biscayne Bay* that found that the South North Bay had a Poor score due to recent seagrass die off, elevated chlorophyll concentrations, and phosphorus and nitrogen nutrient inputs from land-based sources; and

**WHEREAS**, as a result of high nutrient levels in Biscayne Bay and the surface waters surrounding Miami Beach, the Mayor and the City Commission have determined that the use of fertilizers on lands within the City creates a risk to contributing to adverse effects on surface and/or ground water; and

**WHEREAS**, the Mayor and City Commission hereby find that it is in the best interest of the public health, safety, and welfare of the residents to regulate landscape management practices, including the application and use of fertilizers containing nitrogen and/or phosphorus within the City of Miami Beach; and

**WHEREAS**, the quality of our water channels, Biscayne Bay, and the Atlantic Ocean is critical to environmental, economic and recreational prosperity and to the health, safety and welfare of the citizens of the City of Miami Beach.

**NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AS FOLLOWS:**

**SECTION 1.** Chapter 46 of the Code of the City Miami Beach is hereby amended to create Article IX thereof, to be entitled "Use of Fertilizer," as follows:

## **CHAPTER 46 ENVIRONMENT**

\* \* \*

### **Article IX. Use of Fertilizer.**

#### **Sec. 46-216. Purpose and Intent.**

The purpose of this article is to reduce the negative secondary and cumulative environmental impacts associated with the misuse of fertilizers. These secondary and cumulative effects have been observed in and on the City of Miami Beach's surface waters and Biscayne Bay. This Article regulates and promotes the proper use of fertilizers by any applicator; requires proper training of commercial and institutional fertilizer applicators; establishes training and licensing requirements; establishes a prohibited application period; specifies allowable fertilizer application rates and methods; fertilizer-free zones; low-maintenance zones; and exemptions. The purpose of this article requires the use of best management practices which provide specific management guidelines to minimize negative secondary and cumulative environmental effects associated with the misuse of fertilizers. These secondary and cumulative effects have been observed in and on City of Miami Beach's natural and constructed stormwater conveyances and surface waters. Collectively, these water bodies are an asset critical to the environmental, recreational, cultural and economic well-being of the City's residents and the health of the public. Overgrowth of algae

~~and vegetation hinder the effectiveness of flood attenuation provided by natural and constructed stormwater conveyances.~~ Regulation of nutrients, including both phosphorus and nitrogen contained in fertilizer, will help improve and maintain water and habitat quality.

#### **Section 46-217. Definitions.**

For this Article, the following terms shall have the meanings set forth in this section unless the context clearly indicates otherwise.

*Administrator* means ~~City Manager~~ or his/her designee authorized to administer and enforce the provisions of this Article.

*Application* or *apply* means the actual physical deposit of fertilizer to turf, specialized turf, or landscape plants.

*Applicator* means any person who applies fertilizer on turf and/or landscape plants in the ~~City~~.

*Board* means the Board of Commissioners of the City of Miami Beach, Florida.

*Best management practices* means turf and landscape practices, or combination of practices based on research, field-testing, and expert review, determined to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality, conserving water supplies and protecting natural resources.

*City of Miami Beach approved best management practices training program* means a training program approved pursuant to Section 403.9338, Fla. Stat., or any more stringent requirements set forth in this Article that includes the most current version of the Florida Department of Environmental Protection's "Florida-friendly Best Management Practices for Protection of Water Resources by the Green Industries, 2008," as revised, and approved by the administrator.

*Commercial fertilizer applicator*, except as provided in 482.1562(9) Fla.Stat, means any person who applies fertilizer for payment or other consideration to property not owned by the person or firm applying the fertilizer, or the employer of the applicator, ~~on turf and/or landscape plants in the City of Miami Beach in exchange for money, goods, services or other valuable consideration.~~

*Fertilize, fertilizing, or fertilization* means the act of applying fertilizer to turf, specialized turf, trees, or landscape plants.

*Fertilizer* means any substance or mixture of substances that contains one or more recognized plant nutrients and promotes plant growth, or controls soil acidity or alkalinity, or provides other soil enrichment, or provides other corrective measures to the soil.

*Fertilizer-free zone* means within twenty (20) feet from the top of a seawall or bank of any surface water of Biscayne Bay and any storm drain, pond, stream, waterway, lake, canal, or wetland, as defined by the Florida Department of Environmental Protection.

*Florida-friendly landscaping* means quality, low-maintenance landscapes that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant. The

principles of such landscaping include planting the right plant in the right place, efficient watering, appropriate fertilization, mulching, attraction of wildlife, responsible management of yard pests, recycling yard waste, reduction of stormwater runoff, and waterfront protection. Additional components include practices such as landscape planning and design, soil analysis, the appropriate use of solid waste compost and minimizing the use of irrigation, pesticides, and fertilizers.

Green infrastructure means a management approach engineered-as-natural ecosystems such as green roofs, porous pavement, swales and rain gardens that largely rely on using soil and vegetation to infiltrate, evapotranspire, and/or harvest stormwater runoff and reduce flows to drainage collection systems. This practice aims to preserve, restore and create green space using soils, vegetation, and rainwater harvest techniques.

Guaranteed analysis means the percentage of plant nutrients or measures of neutralizing capability claimed to be present in a fertilizer.

High-impact areas within public parks will be identified by the parks and recreation department, subject to approval by the city manager or his/her designee and posted in the city's annual water quality report. High-impact areas within public parks will be designated annually and generally mean pre-determined areas consisting of turf grass that is heavily utilized by pedestrian traffic year-round and may include visible signs of wear and tear.

Impervious surface ~~are mainly artificial structures~~ means a surface that has been compacted or covered with a layer of material so that it is highly resistant or prevents infiltration by stormwater. It includes roofed areas and surfaces such as compacted sand, lime rock, or clay, as well as conventionally surfaced streets, sidewalks, parking lots, and other similar surfaces—such as roads, sidewalks, driveways and parking lots, as well as industrial areas such as logistics and distribution centers, that are covered by impenetrable materials such as asphalt, concrete, brick, stone,—and rooftops.

Institutional applicator means any person, other than a private, non-commercial or a commercial applicator (unless such definitions also apply under the circumstances), that applies fertilizer for the purpose of maintaining turf and/or landscape plants on their properties. Institutional applicators shall include, but shall not be limited to, owners, managers or employees of public lands, schools, parks, religious institutions, utilities, industrial or business sites and any residential properties maintained in condominium and/or common ownership.

Landscape plant means any native or exotic tree, shrub, or groundcover (excluding turf).

Low maintenance zone means an area a minimum of ten (10) feet wide adjacent to surface waters which is planted ~~and managed in order to minimize the need for~~ to capture and treat stormwater and is designed to not require fertilization, watering, mowing, etc.

Low impact development (LID) refers to systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat. LID is an approach to land development or re-development that works with nature to manage stormwater as close to its source as possible.

Organic fertilizers are materials that are derived from living materials. Examples of organic fertilizers include animal manures, composted materials, and plant residues. Organic fertilizers

are usually considered to be "slow-release" fertilizers because many of the nutrients must be broken down by soil microbes before they become available for plant uptake.

Person means any natural person, business, corporation, limited liability company, partnership, limited partnership, association, club, organization, and/or any group of people acting as an organized entity.

Prohibited application period means June 1st through November 30<sup>th</sup>=1st, and, otherwise, the time period during which a Flood Watch or Warning, or a Tropical Storm Watch or Warning, or a Hurricane Watch or Warning is in effect for any portion of the City, issued by the National Weather Service, or if heavy rain is likely

Rapid release or water-soluble nitrogen means any product containing:

- (1) Ammonium nitrate.
- (2) Ammonium sulfate.
- (3) Calcium nitrate.
- (4) Diammonium phosphate.
- (5) Monoammonium phosphate.
- (6) Potassium nitrate.
- (7) Sodium nitrate.
- (8) Urea (not in the form of slow release nitrogen).
- (9) Others as may be designated by the administrator Association of American Plant Food Control Officials.

Saturated soil means a soil in which the voids are filled with water. Saturation does not require flow. For the purposes of this ordinance, soils shall be considered saturated if standing water is present or the pressure of a person standing on the soil causes the release of free water.

Slow release, controlled release, timed release, slowly available, or water insoluble nitrogen means nitrogen in a form which delays its availability for plant uptake and use after application, or which extends its availability to the plant longer than a reference rapid or quick release product. Forms of slow release, controlled release, slowly available, or water insoluble nitrogen include:

- (1) Isobutylidene diurea ("IBDU").
- (2) Resin, polymer, or sulphur coated urea.
- (3) Biosolids or residuals from domestic wastewater treatment.
- (4) Ureaformaldehyde.
- (5) Composted animal manure.
- (6) Others as may be designated by the administrator Association of American Plant Food Control Officials.

Specialized turf means areas of grass used for golf courses, athletic fields, and high impact areas, and other similar activities.

Surface waters as defined by the Florida Department of Environmental Protection (Chapter 62-340, Florida Administrative Code) means waters on the surface of the earth, contained in bounds created naturally or artificially, including , the Atlantic Ocean, bays, bayous, sounds, estuaries, lagoons, lakes, ponds, impoundments, rivers, streams, springs, creeks, branches, sloughs, tributaries, canals, and ditches.

Turf, sod, or lawn means a piece of grass-covered soil held together by the roots of the grass.

Urban landscape means pervious areas on residential, commercial, industrial, institutional, highway rights-of-way, or other nonagricultural lands that are planted with turf or horticultural plants. For the purposes of this section, agriculture has the same meaning as in Section 570.02 Fla. Stat.

#### **Sec. 46-218. Applicability.**

This Article shall be applicable to and shall regulate any and all applications of fertilizer and areas of application of fertilizer within the City of Miami Beach, unless the applicator is specifically exempted by the terms of this Article from the regulatory provisions of this Article. This Article shall be prospective only and shall not impair any existing contracts.

#### **Sec. 46-219. Timing of fertilizer application.**

- (a) No applicator shall apply fertilizers containing nitrogen and/or phosphorus to turf and/or landscape plants during a Prohibited Application Period.
- (b) Fertilizer shall only be applied to actively growing turf and plants.
- (c) Fertilizer containing nitrogen and/or phosphorus shall not be applied before seeding or sodding a site and shall not be applied for the first 30 days after seeding or sodding except when hydroseeding for temporary or permanent erosion control in an emergency situation (wildfire, etc.) or in accordance with the stormwater pollution prevention plan for that site.

#### **Sec. 46-220. Fertilizer-free zones.**

- (a) Except as provided in subsection (b) below, fertilizer shall not be applied within twenty (20) feet from the top of a seawall or bank of any surface water of Biscayne Bay or any pond, stream, waterway, lake, canal, wetland or storm drain, as defined by the Florida Department of Environmental Protection (Fertilizer-Free Zone).
- (b) Spreader deflector shields are required when fertilizing adjacent to fertilizer-free zones or impervious surfaces.
- (c) Newly planted turf and landscape plants may be fertilized within a Fertilizer-Free Zone only for a sixty (60) day period beginning 30 days after planting, if needed, to allow the plants to become well established and caution is used to prevent direct deposition of nutrients into the water.

#### **Sec. 46-221. Low maintenance zones.**

A voluntary ten-foot low maintenance zone is strongly recommended, but not mandated, from the top of a seawall or bank of any surface water of Biscayne Bay or any pond, stream, waterway, lake, canal, wetland or storm drain. A swale/berm system is recommended for installation at the landward edge of this low maintenance zone to capture and filter runoff. If more stringent Miami-Dade County Code regulations apply, this provision does not relieve the requirement to adhere to the more stringent regulations. No mowed or cut vegetative material should be deposited or

left remaining in the low maintenance zone or deposited in the water. Care should be taken to prevent the over-spray of aquatic weed products in the low maintenance zone. Care must be taken to ensure erosion of the surface soil does not occur. Excessive erosion may result in additional pollution hazard.

**Sec. 46-222. Fertilizer content and application rates.**

~~(a) Fertilizers applied to athletic fields and public parks shall be formulated and applied in accordance with requirements and directions provided by Rule 5E-1.003(3)(b) Florida Administrative Code, as it may be amended.~~

~~(b) Nitrogen or Phosphorus fertilizer shall not be applied to turf or landscape plants except as provided in paragraphs (d) and (e) of this section or in University of Florida Institute of Food and Agriculture Sciences ("UF/IFAS") recommendations for landscape plants, vegetable gardens and fruit trees and shrubs, unless a soil deficiency has been verified by an approved test.~~

- (a) Fertilizers containing nitrogen and/or phosphorous applied to turf and/or landscape plants within the City shall contain no less than ~~50 percent~~ sixty-five (65) percent slow release, controlled release, timed release, slowly available, or water insoluble nitrogen per guaranteed analysis label. Caution should be used to prevent direct deposition of nutrients in the water.
- (b) Except as provided in paragraph (a) of this section, fertilizers applied to turf and landscape plants within the City shall be formulated and applied in accordance with requirements and directions provided by Rule 5E-1.003(4), Florida Administrative Code, *Labeling Requirements For Urban Turf Fertilizers*, as it may be amended.
- (c) Fertilizer containing nitrogen and/or phosphorous shall not be applied before seeding or sodding a site and shall not be applied for the first 30 days after seeding or sodding, except when hydro-seeding for temporary or permanent erosion control in an emergency situation (salt-water floods, etc.) or in accordance with the Stormwater Pollution Prevention Plan for that site.
- (d) Fertilizers containing nitrogen and/or phosphorous should be applied to turf and/or landscape plants at the lowest rate recommended by the state. No more than two (2) pounds of nitrogen per 1,000 square feet shall be applied to any turf or landscape area in any calendar year.
- (e) No more than ~~one~~ 0.50 lb. of nitrogen per 1,000 square feet shall be applied to any turf or landscape area in one application ~~when using slow release nitrogen.~~
- ~~(h) No More than ½ lb. of nitrogen per 1,000 square feet shall be applied to any turf or landscape area in one application when using quick release nitrogen.~~
- (f) Liquid fertilizers containing nitrogen shall not be applied to turf and/or landscape plants within the City.
- (g) Phosphorus fertilizer shall not be applied to turf or landscape plants unless a soil deficiency has been verified by an approved test. Where a deficiency has been verified, phosphorous fertilizer shall not be applied at application rates that exceed 0.25 lbs of

phosphorus per 1,000 square feet per application and not to exceed 0.50 lbs. of phosphorous per 1,000 square feet per year.

- (h) Where fertilizer application is not described in this Article, fertilizer shall be applied in accordance with requirements and directions provided by Florida Administrative Code Rule 5E-1.003 for turf and as found in UF/IFAS recommendations for landscape plants, vegetable gardens, and fruit trees and shrubs.

#### **Sec. 46-223. Application Practices.**

- (a) No person shall apply fertilizers containing nitrogen and/or phosphorus to turf and/or landscape plants during the Prohibited Application Period.
- (b) Spreader deflector shields are required when fertilizing via rotary (broadcast) spreaders. Deflectors must be positioned such that fertilizer granules are deflected away from all impervious surfaces, any Fertilizer-Free Zones and water bodies, including wetlands.
- (c) Fertilizer shall not be applied, spilled, or otherwise deposited on any impervious surfaces.
- (d) Any fertilizer applied, spilled, or deposited, either intentionally or accidentally, on any impervious surface shall be immediately and completely removed to the greatest extent practicable.
- (e) Fertilizer released on an impervious surface must be immediately contained and either legally applied to turf or any other legal site or returned to the original or other appropriate container.
- (f) In no case shall fertilizer be washed, swept, or blown off impervious surfaces into stormwater drains, ditches, conveyances, or water bodies including wetlands.
- (g) In no case shall fertilizer be washed, swept, or blown off or around trunks of palms or tree wells or in tree pits.

#### **Sec. 46-224. Management of grass clippings and vegetative matter.**

In no case shall grass clippings, vegetative material and/or vegetative debris either intentionally or accidentally be swept, or blown off into stormwater drains, ditches, conveyances, water bodies, wetlands, or sidewalks or roadway. Any material that is erroneously so deposited shall be immediately removed to the maximum extent practicable.

#### **Sec. 46-225. Exemptions.**

- (a) The provisions set forth in this Article Sections 46-219, 46-220, 46-222 and 46-223 shall not be applicable to:
  - 1. Golf courses. For all public and private golf courses, the provisions of the Florida Department of Environmental Protection document, titled "BMPs for the Enhancement of Environmental Quality on Florida Golf Courses, January 2012", as amended, and provisions set forth in Sec. 46-226 are required, and shall be followed when Applying Fertilizer to golf courses.



2. High impact areas in public parks and athletic fields. Specialized turf managers are required to follow the provisions of the "Florida Green Industries Best Management Practices for Protection of Water Resources in Florida, December 2008", as amended, for Turf and Landscape Plants, and provisions set forth in Sec. 46-226.
3. Any lands used for bona fide scientific research, including, but not limited to, research on the effects of fertilizer use on urban stormwater, water quality, agronomics, or horticulture.
- ~~4. Newly established landscape plants for a sixty (60) day period beginning 30 days after planting, if needed to, allow the plants to become well established.~~
4. Vegetable gardens, provided they are not within fifteen (15) feet of any water body and/or wetland.
5. Fruit trees and shrubs, provided that fertilizer application rates do not exceed UF/IFAS recommendations.
6. Yard waste compost, mulches or other similar materials that are primarily organic in nature and are applied to improve the physical condition of the soil.
7. Tree trunk injection fertilization treatments that are performed by a certified arborist.
- ~~8. Reclaimed water used for irrigation (which may contain substantial amounts of nitrogen and phosphorus)~~
8. Exceptions to the requirement shall be approved only when the property owner receives specific written authorization from the environment and sustainability director and the city manager, or their respective designees. The environment and sustainability director and the city manager, or their respective designees shall not issue written approval, unless they determine that the impacted landscaping or tree(s) through soil test or other approved means require specific nutrients during the prohibited application period. Plant material deemed to be consistently impacted by high-groundwater table, climate change, sea level rise or disease is not exempt from this provision.

**Sec. 46-226. Golf Course, Athletic Fields, Specialized Turf, and Greenspace Requirements.**

(a) All new public and private golf course greens and all renovated golf course greens, provided their renovation exceeds 50% of its total area, shall meet all the following requirements:

1. Incorporate Best Management Practices as defined in "Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses", published by the Florida Department of Environmental Protection, latest version.
2. Provide the use of native and/or Florida-friendly trees, shrubs and ground cover landscaping in more than 80% of the total areas designated for non-play.

3. Specify a certified turfgrass groundcover species for all play areas that requires the least amount of fertilization and water consumption.

4. Incorporate the use of green infrastructure elements and/or low impact development (LID) design in the design of the golf course's drainage system and in allowing ample, uncompact areas for tree root growth.

5. Provide a minimum (10) foot low-maintenance buffer adjacent to watercourses, seawalls and storm drain inlets.

(b) All new athletic fields and all renovated athletic fields, provided their renovation exceeds 50% of its total area, shall meet all the following requirements:

1. Incorporate Best Management Practices for landscaping by including the use of native and Florida-friendly trees, shrubs and ground cover landscaping.

2. Incorporate the use of green infrastructure elements and/or low impact development (LID) design in the design of the field's drainage system and in allowing ample, uncompact areas for tree root growth.

3. Include at minimum a ten (10) foot low-maintenance zone buffer adjacent to watercourses, seawalls and storm drain inlets.

(c) When renovating over 50% of the area of any public park, the new design shall meet all the following requirements:

1. Incorporate best management practices for landscaping by including the use of native and Florida-friendly trees, shrubs and ground cover landscaping.

2. Incorporate the use of green infrastructure elements and/or low impact development (LID) design in the design of the park's drainage system and in allowing ample, uncompact areas for tree root growth.

3. Include at minimum a ten-foot low-maintenance zone buffer adjacent to watercourses, seawalls and storm drain inlets.

(d) Requests for exceptions to the requirements set forth in Sec. 46-226 (a), (b), and (c) shall be submitted in writing to the environment and sustainability director or his/her designee, detailing the project's design and details, demonstrating that good faith effort was made to achieve substantial compliance with the applicable requirements, and explaining what hardship would be incurred if a proposed exception or variance is not granted. The environment and sustainability director or his/her designee will have discretion to approve or reject exemption requests on a case-by-case basis.

(e) All renovations to any golf courses, athletic fields, and parks shall provide a management plan with fertilization strategies, chemical-mixes and distribution/utilization regimes to reduce nitrogen and phosphorus-related nutrient load.

(f) Fertilizers applied to greenspaces, parks, specialized turf, including athletic fields and high intensity public parks shall be formulated and applied in accordance with requirements and

directions provided by Rule 5E-1.003(3)(b) Florida Administrative Code, as it may be amended.

(g) Fertilizers applied to turf and landscape plants within the City shall be formulated and applied in accordance with requirements and directions provided by Rule 5E-1.003(4), Florida Administrative Code, Labeling Requirements For Urban Turf Fertilizers, as it may be amended.

(h) Fertilizers labeled for sports turf at golf courses, parks, and athletic fields shall:

1. Have directions for use not to exceed rates recommended in the document titled SL 191 "Recommendations for N, P, K, and Mg for Golf Course and Athletic Field Fertilization Based on Mehlich I Extractant" dated March 2007, as amended from time to time, which is hereby adopted and incorporated by reference into this Ordinance.
  2. Have directions for use in accordance with the recommendations in "BMP's for the Enhancement of Environmental Quality of Florida Golf Courses" published by FDEP dated October 2012. This does not exempt Applicators at these sites from the required basic Green Industry BMP training.
- (i) All public and private golf courses, athletic fields, high-impact areas within public parks with specialized turf, and greenspaces are required to administer a nutrient soil test periodically and provide the test results together with the monthly fertilizer-use per site to the environment and sustainability department upon request. Monthly fertilizer-use for public and private golf courses, athletic fields, high-impact areas within public parks, and greenspaces will be reported in the City's annual water quality report that is submitted as part of the National Pollution Discharge Elimination System Permit's annual report submitted the Florida Department of Environmental Protection. A list and a map of the high-impact areas within parks will also be included in the city's annual water quality report.

#### **Sec. 46-226227. Training.**

(a) All commercial and institutional applicators of fertilizer within the City shall abide by and successfully complete the six-hour training program in the "Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries" offered by the Florida Department of Environmental Protection through the University of Florida Extension "Florida-Friendly Landscapes" program. Completion of this training program shall be repeated a minimum of once every five (5) years.

(b) Private, non-commercial applicators are encouraged to follow the recommendations of the University of Florida IFAS Florida Yards and Neighborhoods program when applying fertilizers.

(c) All public and private golf course applicators of fertilizer shall abide by and successfully complete the "Florida Golf Course Best Management Practices Certification Training" offered by the University of Florida. Completion of this training program shall be repeated a minimum of once every five (5) years.

#### **Sec. 46-228. Licensing of Commercial Applicators.**

- (a) All commercial applicators of fertilizer within the City shall abide by and successfully complete training and continuing education requirements in the "Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries" offered by the Florida Department of Environmental Protection through the University of Florida IFAS "Florida-Friendly Landscapes" program prior to obtaining a City of Miami Beach Business Tax Receipt for any category of occupation which may apply any fertilizer to turf and/or landscape plants.
- (b) All commercial applicators of fertilizer within the City shall always have in their possession when applying fertilizer, evidence of certification by the Florida Department of Agriculture and Consumer Services as a commercial fertilizer applicator per Florida Administrative Code Section 5E-14.117(11).
- (c) All businesses applying fertilizer to turf and/or landscape plants (including but not limited to residential lawns, golf courses, commercial properties, and multi-family and condominium properties) must ensure that at least one employee has an appropriate "Florida Friendly Best Management Practices for Protection of Water Resources by the Green Industries" training certification prior to the business owner obtaining a Business Tax Receipt.

**Sec. 46-228229. Enforcement and penalties.**

Fines collected shall be deposited in the Miami Beach Biscayne Bay Protection Fund trust dedicated to fulfilling the purposes of this section and protecting the health and water quality of Biscayne Bay. Funds generated by penalties imposed under this section shall be used by the City for the administration, education and enforcement of Section 403.9337, Fla. Stat., and the corresponding sections of Chapter 46, Article IX of this ordinance, and to further water conservation, and nonpoint pollution prevention activities, water quality improvements, and marine and coastal ecosystems enhancements that protect the city's water resources and Biscayne Bay.

- (a) If a code compliance officer finds a violation of this article, the code compliance officer shall issue a notice of violation. The notice shall inform the violator of the nature of the violation, amount of fine for which the violator is liable, instructions and due date for paying the fine, that the violation may be appealed by requesting an administrative hearing before a special master within ten (10) days after service of the notice of violation, and that the failure to appeal the violation within ten (10) days of service shall constitute an admission of the violation and a waiver of the right to a hearing.
- (b) A violator who has been served with a notice of violation must elect to either
  - 1. pay the following civil fine:
    - (a) First violation within a 12-month period.....\$150.00;
    - (b) Second violation within a 12-month period.....\$300.00;
    - (c) Third or subsequent violation within a 12-month period....\$500.00;
    - or
  - 2. request an administrative hearing before a special master to appeal the notice of violation, which must be requested within ten (10) days of the service of the notice

of violation. The procedures for appeal by administrative hearing of the notice of violation shall be as set forth in sections 30-72 and 30-73 of this Code. Applications for hearings must be accompanied by a fee as approved by a resolution of the city commission, which shall be refunded if the named violator prevails in the appeal.

- (c) Failure to pay the civil fine, or to timely request an administrative hearing before a special master, shall constitute a waiver of the violator's right to an administrative hearing before the special master, and shall be treated as an admission of the violation, for which fines and penalties shall be assessed accordingly.
- (d) A certified copy of an order imposing a fine may be recorded in the public records, and thereafter shall constitute a lien upon any real or personal property owned by the violator, which may be enforced in the same manner as a court judgment by the sheriffs of this state, including levy against the violator's real or personal property, but shall not be deemed to be a court judgment except for enforcement purposes. After three months following the recording of any such lien that remains unpaid, the City may foreclose or otherwise execute upon the lien for the amount of the lien plus accrued interest.
- (e) The special master shall be prohibited from hearing the merits of the notice of violation or considering the timeliness of a request for an administrative hearing if the violator has failed to request an administrative hearing within ten (10) days of the service of the notice of violation. The special master shall not have discretion to alter the penalties prescribed in this article. Any party aggrieved by a decision of a special master may appeal that decision to a court of competent jurisdiction.

#### **Sec. 46-230. City of Miami Beach Biscayne Bay Protection Trust Fund.**

- (a) *Establishment of trust.* There is hereby created the City of Miami Beach Biscayne Bay Protection Trust Fund (the "trust") for the purpose of accepting and disbursing the funds generated by penalties imposed under Section 46-229. Fines collected under Section 46-229 shall be deposited in the Miami Beach Biscayne Bay Protection Trust Fund.
- (b) *Term of existence.* The trust shall be self-perpetuating from year to year, unless specifically terminated by the city commission.
- (c) *Trust assets.* All monies received shall be placed in trust for and inure to the use and benefit of the city. These funds shall be expended, utilized and disbursed for the administration, education, and enforcement as designated in this division, by the environment and sustainability department, upon approval of the city commission. Trust funds will be used to plan and manage environmental assets and programs to further water conservation, nonpoint pollution prevention activities, water quality improvements, and marine and coastal ecosystems enhancements that protect the city's water resources and Biscayne Bay
- (d) *Trust administration.*
  - 1. All funds deposited hereunder shall be deposited in the trust, which must be a separate account established and maintained from the general revenue funds and accounts of the city.

2. Interest earned under the account shall be used solely for the purposes specified for funds of such account.
3. The funds obtained hereunder may be accepted on behalf of the city by the city manager, who shall promptly deliver to the department of finance, which shall cause the same to be credited to the trust.
4. Trust funds shall be expended, utilized and disbursed by the environment and sustainability department, upon approval of the city commission, for the purposes designated in this section.

## **SECTION 2. REPEALER.**

All ordinances or parts of ordinances in conflict herewith are hereby repealed.

## **SECTION 3. SEVERABILITY.**

If any section, subsection, clause or provision of this Ordinance is held invalid, the remainder shall not be affected by such invalidity.

## **SECTION 4. CODIFICATION.**

It is the intention of the Mayor and City Commission of the City of Miami Beach, and it is hereby ordained that the provisions of this Ordinance shall become and be made part of the Code of the City of Miami Beach, Florida. The sections of this Ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.


## **SECTION 5. EFFECTIVE DATE.**

This Ordinance shall take effect on the 1<sup>st</sup> day of **June**, 2021.

**PASSED AND ADOPTED** this 13 day of January, 2021.

**ATTEST:**

78 1/26/2021  
Rafael E. Granado, City Clerk

  
Dan Gelber, Mayor

(sponsored by Commissioner Michael Gongora)

Underlines denote additions

Doublelines denote additions after first reading

~~Double Strikethrough~~ denotes deletions after the first reading



APPROVED AS TO  
FORM & LANGUAGE  
& FOR EXECUTION

  
City Attorney

1-15-21  
Date

# MIAMI BEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, [www.miamibeachfl.gov](http://www.miamibeachfl.gov)

## COMMISSION MEMORANDUM

TO: Mayor Dan Gelber and Members of the City Commission

FROM: Raul J. Aguila, Interim City Manager

DATE: January 13, 2021

DocuSigned by:

Paul J. Aguila

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**2:20 p.m. Second Reading Public Hearing**

**SUBJECT: AN ORDINANCE OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, AMENDING CHAPTER 46 OF THE MIAMI BEACH CITY CODE, ENTITLED "ENVIRONMENT," TO CREATE ARTICLE IX THEREOF, TO BE ENTITLED "USE OF FERTILIZER," RELATING TO FLORIDA FRIENDLY USE WITHIN THE CITY OF MIAMI BEACH, PROVIDING FOR DEFINITIONS, APPLICABILITY, TIMING OF FERTILIZER APPLICATIONS, FERTILIZER FREE ZONES, FERTILIZER CONTENT AND APPLICATION REQUIREMENTS, AND MANAGEMENT OF VEGETATIVE MATTER, OUTLINING CERTAIN EXEMPTIONS, GOLF COURSE, ATHLETIC FIELDS, SPECIALIZED TURF AND GREENSPACE REQUIREMENTS, REQUIRING TRAINING AND LICENSING, PROVIDING ENFORCEMENT AND PENALTIES; AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.**

### **ADMINISTRATION RECOMMENDATION**

The Administration recommends that the City Commission adopt the ordinance for second reading.

### **BACKGROUND**

Biscayne Bay is critical to the environmental, recreational, cultural, and economic well-being of the community. The challenges facing the Bay are complex and regional in nature. At the beginning of August 2020, an unprecedented fish kill was reported in the northern basin of Biscayne Bay, concentrated in the area around the Biscayne Canal and the Little River. Over the course of a week, thousands of fish died from lack of oxygen. Following this event, a devastating algae bloom flourished throughout the Bay and surrounding waterways. These events are caused by multiple factors including extremely high-water temperatures, low-dissolved oxygen, increased freshwater flows, and an influx of nutrients. Nutrients enter the system from agricultural runoff, leaking septic tanks, fertilizers, pet waste, and yard clippings.

In 2019, Miami-Dade County Board of County Commissioners created the Biscayne Bay Task Force (BBTF) to study the causes of the degradation of the bay and develop recommendations on how to address these issues. In August

2020, BBTF released Report and Recommendations: A Unified Approach to Recovery for a Healthy & Resilient Biscayne Bay. The report focuses on three main areas: water quality, leadership, and education. It will take collaboration and long-term commitment from Municipal, County, State and Federal agencies as well as community organizations to restore the health of the Bay. The report recognizes the need for countywide and municipal legislation to prevent the negative secondary and cumulative effects of excess nutrients in Biscayne Bay caused by fertilizer runoff. The report also recognizes that water quality restoration of Biscayne Bay needs to be a budget priority for all governmental levels: federal, state, and local.

On December 10, 2020, Miami-Dade County released Report on Development and Implementation of an Annual Report Card Program on the Health of Biscayne Bay. The Report Card analyzed water quality and benthic habitat data, prioritized water quality and habitat characterizes. The Report noted the health of the Bay is largely driven by water quality. The Report card breaks down the Bay into 12 areas. Two of these areas, Southern North Bay A and B, are adjacent to Miami Beach. According to the 2019 Report Card, both areas were ranked poor for the parameters analyzed including: water clarity, phosphorus, nitrogen, chlorophyll-a, submerged aquatic vegetation, and sponges (Attachment A).

At the Commission meeting on September 16, 2020 the City Commission and Mayor adopted for first reading an ordinance amending Chapter 46 of the Miami Beach City Code, entitled "Environment," to create Article IX, to be entitled "Use of Fertilizer," relating to citywide Florida friendly fertilizer use, providing for definitions, applicability, timing of fertilizer applications, fertilizer-free zones, low maintenance zones, fertilizer content and application requirements, application practices, management of grass clippings and vegetative matter, exemptions, golf course, athletic fields, specialized turf and greenspace requirements, requiring training and licensing, and providing enforcement and penalties.

According to the 2019 Community Satisfaction Survey, only 37.1% of residents are satisfied with the City's efforts to reduce pollution from stormwater runoff.

## **ANALYSIS**

Nitrogen and phosphorus are primary nutrients in many fertilizers. When it rains, stormwater collects potential pollutants, including sediments, nutrients (from lawn fertilizers), bacteria (from animal waste), pesticides, metals (from rooftops and roadways), and petroleum by-products (from leaking vehicles). The excess of these nutrients can be detrimental to our waterways. Increased nutrients are one of the main pollutants degrading the water quality and health of Biscayne Bay.

Over 80 county and city governments in Florida have enacted fertilizer restriction ordinances to address improper fertilizer use on private properties. Manatee, Pinellas, Lee and Martin Counties and the cities of Miami, Melbourne and Cape Coral are examples of communities that have enacted a blackout period for fertilizer use during the rainy season.

The proposed ordinance (Attachment B) was developed using template language provided by the Florida Department of Environmental Protection (FDEP) and existing fertilizer ordinances that are in place in municipalities throughout Florida,



including the City of Miami. The proposed ordinance requires the use of best management practices which provide specific management guidelines to minimize negative secondary and cumulative environmental effects associated with the misuse of fertilizers. The ordinance regulates and promotes the following:

- Establishes a prohibited application period from June 1 through November 1 (accounts for rainy season and king tides)
- Establishes fertilizer-free zones 20 feet adjacent to waterways and storm drains
- Recommends low maintenance zones 10 feet adjacent to waterways and storm drains
- Establishes proper fertilizer application rates and methods outside of the prohibited application period
- Requires that grass clippings and other vegetative matter be kept free from storm drains and waterways
- Provides exemptions for golf courses, high impact areas in public parks and athletic fields
- Establishes minimum Florida-friendly landscape requirements for new golf courses and parks to reduce future fertilizer use and requires golf courses and parks to conduct periodic nutrient soil test and report quarterly the monthly fertilizer use for each site to the Environment & Sustainability Department
- Requires proper training of commercial and institutional fertilizer applicators
- Establishes training and licensing requirements for commercial and institutional applicators
- Establishes enforcement and penalties
- Establishes the Miami Beach Biscayne Bay Protection Fund

The ordinance establishes a prohibited application period from June 1 through November 1 to account for the rainy season and king tides that cause tidal flooding from approximately August through November. To reduce runoff from fertilizers, the proposed ordinance establishes a fertilizer-free zone 20 feet adjacent to waterways and storm drains and recommends a low-maintenance zone 10 feet from waterways or storm drains. The low-maintenance zone encourages the use of Florida-friendly landscaping that does not require maintenance and can help filter pollutants. In addition, fertilizers and grass clippings and other vegetative matter cannot be swept or blown into the street, stormwater drains or waterbodies to prevent direct discharges and high nutrient vegetated debris from being discharged into the Bay and surrounding waterways.

The proposed ordinance establishes fertilizer application rates for the period outside of the prohibited application period:

- Fertilizers containing nitrogen and/or phosphorous shall contain no less than 65% slow release
- Fertilizers containing nitrogen and/or phosphorous shall not be applied before seeding and shall not be applied for the first 30 days after seeding or sodding
- No more than two pounds of nitrogen per 1,000 sq ft shall be applied in a calendar year

- No more than 0.50 lbs of nitrogen per 1,000 sq feet shall be applied in one application
- Liquid fertilizer containing nitrogen are prohibited
- A soil test verifying a deficiency is required prior to the use of phosphorus fertilizer. Where a deficiency has been verified, phosphorous fertilizer shall not be applied at application rate that exceed 0.25 lbs of phosphorus per 1,000 sq ft per application and not to exceed 0.50 lbs of per 1,000 sq feet per year

It should be noted that private properties can apply to the Environment & Sustainability Department for an exemption if they can demonstrate a nutrient deficiency that is not being caused by high ground water, climate change, sea level rise, or disease. Recognizing that there may be extreme cases where it may necessary to utilize fertilizer during the prohibited application period, this exemption allows for flexibility in these cases.

The proposed ordinance sets forth a number of exemptions, including golf courses, high impact areas in public parks, and athletic fields. The year-around, high intensity use of turf areas in parks and golf courses require the use of fertilizers to keep these areas green and the turf strong. The proposed ordinance requires that a soil nutrient test be completed periodically, and report monthly fertilizer use per site to the Environment & Sustainability Department. This data will be included in the City's annual water quality report that is submitted to the FDEP as part of the National Pollution Discharge Elimination System (NPDES) annual report. Collecting fertilizer-use data will allow the City to track and monitor fertilizer-use to make science-based decisions and adjustments to the ordinance in the future.

It should be highlighted the City's Parks and Recreation Department and the Public Works – Greenspace Management Division apply Florida-friendly landscaping principles and best management practices for fertilizer application on all public properties. All City landscaping contractors are required to follow industry practices and standards found in the FDEP's "Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries". This ordinance will require these same standards for commercial landscapers operating on private property that are not currently required to abide by these standards. The ordinance requires all commercial and institutional applicators of fertilizer to complete the six-hour training program in the "Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries" offered by the FDEP through the University of Florida Extension program every five years.

Site design is an important component to reducing nutrient run-off. The proposed ordinance requires that golf courses, athletic fields and high impact areas in parks incorporate the following design elements into all new future projects or renovations exceeding 50% of its total area:

1. Incorporate "Best Management Practices for Enhancement of Environmental Quality on Florida Golf Courses" and BMPs for the use of Florida-friendly trees, shrubs, and ground cover landscaping; and

2. Provide the use of Florida-friendly trees, shrubs, and ground cover landscaping in more than 80% of the total areas designated for non-play golf course areas; and
3. Incorporate low-impact design and green infrastructure elements into the drainage design; and
4. Provide minimum ten-foot low maintenance buffer adjacent to watercourses, seawalls, and storm drain inlets; and
5. Provide a management plan with fertilizer strategies to reduce nitrogen and/or phosphorus-related nutrient load.

The proposed ordinance allows exceptions to the design requirements if a project demonstrates that a good faith effort was made to achieve substantial compliance with the applicable design requirements. The exception must be approved in writing by both the Environment & Sustainability Director and the City Manager.

The proposed ordinance includes training and licensing of commercial applicators and golf course operators every five years. Commercial applicators are required to complete the six-hour training program "Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries" offered by FDEP and golf course applicators are required to complete the "Florida Golf Course Best Management Practices Certification Training" offered by the University of Florida.

The proposed ordinance includes enforcement and penalties that apply to both commercial applicators and individual property owners. The penalty schedule is as follows:

1. First Violation within a 12-month period - \$150.00
2. Second Violation within a 12-month period - \$300.00
3. Third or subsequent violation within a 12-month period - \$500

Fines collected shall be deposited into the Miami Beach Biscayne Bay Protection Trust fund dedicated to further water conservation, nonpoint pollution prevention activities, water quality improvements, and marine and coastal ecosystems enhancements. Establishing this fund is an important step in projecting Biscayne Bay. The County's Biscayne Bay Task Force Recommendations highlighted the need to prioritize funding for the protection of water quality and health of Biscayne Bay.

At the September 16, 2020 Commission Meeting, Commissioner David Richardson requested more details as to why the State's guidance has not been codified into State law. In 2015, FDEP released an updated Model Fertilizer Use Ordinance, 403.9337 Fla. Sta to be used as a guiding document by counties and municipalities to limit the amount of fertilizer applied to the landscape to reduce the risk of nutrient enrichment of surface and ground waters. A state bill requiring all counties and municipal governments to adopt the model ordinance has been introduced as recently as last year's legislative session, but it has not successfully moved past the Agriculture or Agriculture and Natural Resources Subcommittees. It should be noted that Florida Statue 403.9337(2) requires counties and municipal governments within the watershed of a nutrient-impaired water body to adopt, at

minimum, the FDEP model ordinance. The proposed ordinance is outlined form FDEP's model ordinance and has been modified to meet the specific conditions in Miami Beach and strengthened to provide greater protection of Biscayne Bay.

For the implementation of the policy, the Environment & Sustainability (E&S) Department will work with local non-profits such as the Miami Waterkeeper and the Ocean Conservancy to develop an outreach campaign for the community and landscaping commercial contractors. The Miami Waterkeeper has worked with the City of Miami on the development and implementation of their fertilizer policy and outreach campaign. The Miami Waterkeeper was recently awarded an environmental grant from the City of Miami Beach to educate the community and landscape commercial contractors about fertilizer use. One of the main goals of the Ocean Conservancy's 'Shores Forward' partnership with the City is to improve water quality and reduce pollutants such as fertilizers in our waterways. The Environment & Sustainability Department will work with both non-profits to develop trainings and virtual workshops for the community and landscaping commercial contractors. Furthermore, the Marketing and Communication's Department will be developing a multi-tiered fertilizer campaign to educate residents leading up to and during the rainy season. The proposed ordinance shall take effect on the 1st day of June, 2021.

### **CONCLUSION**

The Administration recommends the Mayor and City Commission approve the ordinance for second reading.

#### **Attachments:**

A – Miami-Dade County Biscayne Bay 2019 Report Card

B – Use of Fertilizer Ordinance

# 2019 BISCAYNE BAY REPORT CARD

