

R5 AE TURTLE NESTING PROTECTION AMENDMENT

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," BY AMENDING ARTICLE V, ENTITLED "TURTLE NESTING PROTECTION ORDINANCE," BY AMENDING SECTIONS 46-202, AND 46-203 THEREOF TO STRENGTHEN AND CLARIFY THE PROVISIONS OF THE ORDINANCE PASSED IN 2006 AND INCLUDE RECOMMENDED MODIFICATIONS BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC); AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION AND AN EFFECTIVE DATE.

Applicable Area:

# MIAMI BEACH

## COMMISSION MEMORANDUM

TO: Honorable Mayor and Members of the City Commission

FROM: Rickelle Williams, Interim City Manager

DATE: July 24, 2024 First Reading

TITLE: TURTLE NESTING PROTECTION AMENDMENT  
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," BY AMENDING ARTICLE V, ENTITLED "TURTLE NESTING PROTECTION ORDINANCE," BY AMENDING SECTIONS 46-202, AND 46-203 THEREOF TO STRENGTHEN AND CLARIFY THE PROVISIONS OF THE ORDINANCE PASSED IN 2006 AND INCLUDE RECOMMENDED MODIFICATIONS BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC); AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION AND AN EFFECTIVE DATE.

### **RECOMMENDATION**

The Administration recommends that the Mayor and City Commission approve the subject ordinance at First Reading and schedule a Second Reading public hearing for September 11, 2024.

### **BACKGROUND/HISTORY**

On September 6, 2006, Ordinance No. 2006-3525 was adopted to protect native sea turtle population by minimizing beachfront lighting to reduce the negative impact on nesting and hatchling sea turtles.

### **ANALYSIS**

The purpose of the attached ordinance amendment is to strengthen and clarify the provisions of the ordinance passed in 2006 and include recommended modifications by the Florida Fish and Wildlife Conservation Commission (FWC). Sea Turtles are protected by the U.S. Endangered Species Act of 1973 and Florida Statute Chapter 370. It is illegal to harm or harass sea turtles, their nests, or hatchlings. The City of Miami Beach is a nesting habitat for three species of protected sea turtles: Loggerhead, Green, and Leatherback sea turtles. Handling of turtles and nests is regulated by the State agency, FWC. Sea turtle nesting season in the State of Florida occurs between May 1 and October 31; however, sea turtle nesting begins on April 1<sup>st</sup> in the City of Miami Beach to account for the earlier Leatherback nesting season.

On beaches where artificial lighting is visible, females may be deterred from nesting and the hatchlings' journey to the sea can be disrupted as they can become disoriented, causing them to crawl away from the ocean and toward the artificial light. Hatchlings are attracted to the brightest source of light, which on an unlighted beach would be the reflection of the moon off the surf. Beachfront lighting has been documented to negatively affect nesting females and often results in reduced or abnormal nesting activity. Visible light sources and the reflection of "glow" resulting from the cumulative effects of coastal lights contribute to this problem.

The City of Miami Beach is dedicated to the conservation and preservation of its natural resources and works with many stakeholders in advance of and through Sea Turtle Nesting Season (LTC No. 202-2024). The Environment and Sustainability Department is also implementing Flip the Switch, a communications campaign funded through a competitive Sea Turtle Conservancy grant.

The Miami-Dade County Sea Turtle Conservation Program surveys over nineteen (19) miles of beaches from March to October. The surveys begin at sunrise every morning during sea turtle nesting season which include dedicated County staff identifying, marking off, and where applicable, relocating nests. No beach activities (beach maintenance operations, sand sifting, litter collection, concessionaire operations, special events, etc.) can begin before the daily survey is completed and County staff gives the authorization to begin activities on the beach. They also inventory hatched nests and document hatchling disorientations. According to the County, high densities of disorientation due to misdirected and artificial lighting were documented within South, Mid, and North Beach in 2022 and 2023. In 2023, 71 disorientation events out of 158 total nests were documented within Miami Beach. This equates to approximately 45% of nests that were disoriented due to misdirected artificial lighting. With an approximately 45% disorientation rate, Miami Beach has the second highest “disoriented nests per mile” rate in Miami-Dade County.

The objective of the ordinance amendment is to further reduce the damaging impacts of artificial light on sea turtles by updating sections of the ordinance for consistency with FWC recommendations through the following:

- Amending, clarifying, and expanding the definitions in Section 46-202.
- Modifying the prohibitive activities disruptive to marine turtles in Section 46-203 to include restrictions on fireworks excepting fireworks launched from barges.
- Remove the “exceeding 50% of the value of the structure” threshold for renovations to comply with lighting standards for new development on both public and private property.
- Modify the lighting standards for new and existing public and private development to apply to lighting within line of sight of the beach, not just lighting east of the Coastal Construction Control Line (CCCL).
- Include lighting requirements for existing interior lights on public and private properties that are visible from the beach and modify lighting standards.

## **FISCAL IMPACT STATEMENT**

N/A

**Does this Ordinance require a Business Impact Estimate?** Yes  
(FOR ORDINANCES ONLY)

The Business Impact Estimate (BIE) was published on . See BIE at:  
<https://www.miamibeachfl.gov/city-hall/city-clerk/meeting-notice/>

## **FINANCIAL INFORMATION**

## **CONCLUSION**

The Administration recommends the Mayor and City Commission approve the subject ordinance at First Reading and schedule a Second Reading public hearing for September 11, 2024. The objective of the ordinance amendment is to further reduce the damaging impacts of artificial light on the native sea turtle population by integrating Florida Fish and Wildlife Conservation Commission recommendations. Due to the far-reaching recommendations proposed for both

public and private properties, it may be beneficial to provide some additional information through a public outreach process or informational campaign.

**Applicable Area**

Citywide

**Is this a “Residents Right to Know” item, pursuant to City Code Section 2-17?**

Yes

**Is this item related to a G.O. Bond Project?**

No

**Was this Agenda Item initially requested by a lobbyist which, as defined in Code Sec. 2-481, includes a principal engaged in lobbying?** No

If so, specify the name of lobbyist(s) and principal(s):

**Department**

Environment and Sustainability

**Sponsor(s)**

Commissioner David Suarez

**Co-sponsor(s)**

**Condensed Title**

1<sup>st</sup> Rdg, Turtle Nesting Protection Ordinance Amendment. (Suarez) EN

ORDINANCE NO. \_\_\_\_\_

**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," BY AMENDING ARTICLE V, ENTITLED "TURTLE NESTING PROTECTION ORDINANCE," BY AMENDING SECTIONS 46-202, AND 46-203 THEREOF TO STRENGTHEN AND CLARIFY THE PROVISIONS OF THE EXISTING ORDINANCE AND INCLUDE RECOMMENDED MODIFICATIONS BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION ("FWC"); AND, PROVIDING FOR REPEALER, SEVERABILITY, CODIFICATION AND AN EFFECTIVE DATE.**

**WHEREAS**, the beach along the Atlantic Ocean, within the boundaries of the City of Miami Beach, is utilized by federally and state protected sea turtles for nesting; and

**WHEREAS**, sea turtle nesting season in the State of Florida occurs between May 1 and October 31; however, sea turtle nesting begins on April 1st in the City of Miami Beach to account for the earlier Leatherback nesting season; and

**WHEREAS**, artificial night-time lighting directly affects and disorients adult sea turtles and hatchlings resulting in losses in turtle populations; and

**WHEREAS**, in 2006, the City Commission passed and adopted the City's Turtle Nesting Protection Ordinance No. 2006-3525, set forth in Chapter 46 of the City Code; and

**WHEREAS**, the Ordinance created a framework for the City protect native sea turtles by minimizing beachfront lighting and reducing the impact on the native population; and

**WHEREAS**, the Miami-Dade County Sea Turtle Conservation Program surveys over nineteen (19) miles of beaches from March to October inclusive of hatched nests inventories and documentation of hatchling disorientations; and

**WHEREAS**, high densities of disorientation due to misdirected and artificial lighting were documented within South, Mid, and North Beach in 2022 and 2023; and

**WHEREAS**, the amendments to the existing ordinance are proposed to further reduce the damaging impacts of artificial light on sea turtles and be consistent with the Florida Fish and Wildlife Conservation Commission's ("FWC") recommendations; and

**WHEREAS**, the amendments include amending, clarifying, and expanding the definitions in Section 46-202 for consistency with FWC recommendations; and

**WHEREAS**, the amendments include modifying the prohibitive activities disruptive to marine turtles in Section 46-20 for consistency with FWC recommendations; and

**WHEREAS**, the amendments include removing the “exceeding 50% of the value of the structure” threshold for renovations to comply with lighting standards for new development; and

**WHEREAS**, the amendments include modifying the lighting standards for new and existing development to apply to lighting within line of sight of the beach, not just lighting east of the Coastal Construction Control Line (CCCL); and

**WHEREAS**, the amendments include lighting requirements for existing interior lights that are visible from the beach and modify lighting standards.

**WHEREAS**, the amendments set forth below are necessary to accomplish the above objectives.

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

**SECTION 1.** Article V of Chapter 46 of the City Code, entitled “Turtle Nesting Protection Ordinance,” is hereby amended as follows:

## **CHAPTER 46**

### **ENVIRONMENT**

\* \* \*

#### **Article V. Turtle Nesting Protection Ordinance**

##### **Sec. 46-201. Purpose and Intent.**

The purpose of this article is to reduce the impacts of artificial coastal lighting on threatened and endangered sea turtles that nest on the beaches of Miami Beach by restricting artificial lighting and other activities that disorient turtle hatchlings, causing them to crawl toward land rather than toward the ocean. This article is intended to provide overall improvements in nesting habitat degraded by light pollution, and increase successful nesting activity and production of hatchlings. The restrictions and constraints of this article shall be effective within the incorporated areas of Miami Beach and apply to any coastal lighting or other activity that has potential to adversely impact sea turtles within City limits.

## **Sec. 46-202. Definitions.**

*Artificial light* means any point source of light emanating from a device made by humans, including but not limited to incandescent mercury vapor, metal halide, sodium lamps, fluorescent, flashlights, spotlights, streetlights, vehicular lights, construction lights, security lights, cell phones, flash photography, bonfires, or any light emanating from any reflective surface of the device.

*Beach* means that area of unconsolidated material that extends landward from the mean low-water line of the Atlantic Ocean, to the place where there is a marked change in material or physiographic form, or to the line of permanent vegetation.

~~*Bug type bulb* means any yellow or other colored light bulb that is marketed as being specifically treated in such a way so as to reduce the attraction of bugs to the light.~~

*Coastal construction activities* mean any work or activity that is likely to have a material physical effect on existing coastal conditions or natural shore and inlet processes.

*Coastal Construction Control Line (CCCL)* means the line established by the State of Florida pursuant to section 161.053, Florida Statutes, and filed in the public records of the county, which defines that portion of the beach dune system subject to severe fluctuations based on a 100-year storm surge, storm waves or other predictable weather conditions.

*County* means Miami-Dade County.

~~*Cumulatively illuminated*~~ *visible* means illuminated by numerous artificial light sources that as a group are directly or indirectly visible to an observer standing anywhere on ~~illuminate any portion of the beach.~~

*Beachwalk* means the serpentine path located adjacent to the Atlantic ocean and west of the dune system.

~~*Directly illuminated*~~ *visible* means ~~illuminated as a result~~ visibility of the glowing elements, lamps, globes, or reflectors of an artificial light source by an observer standing that is visible to an observer on the beach.

*Dune* means a mound or ridge of loose sediments, usually sand-sized, lying landward of the beach and deposited by any natural or artificial mechanism.

*F.A.C.* means the Florida Administrative Code.

*Filmed glass* means ~~window~~ glass that has been covered with a film such that the material has a shading coefficient that meets or exceeds the requirements in the F.A.C. Rule 62B-55.004 of forty-five (45) percent or less, adhesive as an integral part, and has performance claims that are supported by approved testing procedures and documentation.

*Floodlight* means a reflector-type light fixture that may be attached directly to a building, other structure, or free-standing, and is unshielded.

*Frontal dune* means the first natural or artificial mound or bluff of sand that is located landward of the beach and that has sufficient vegetation, height, continuity and configuration to offer protective value.

*Ground-level barrier* means any vegetation, natural feature or artificial structure rising from the ground that prevents beachfront lighting from shining directly onto the beach-dune system.

*Hatchling* means any species of marine turtle, within or outside of a nest, which has recently hatched from an egg.

*Indirectly ~~illuminated~~ visible* means ~~illuminated~~ reflected light as a result of glowing elements, lamps, globes, or reflectors of an artificial light source ~~that~~ which is ~~not~~ visible to an observer standing anywhere on the beach without the light source being directly visible.

*Long wavelength light source* means light bulbs or diodes that produce light that measures greater than 560 nanometers and absent wavelengths below 560 nanometers on a spectroscope, which include low-pressure sodium vapor, true red neon, red, orange, or amber light-emitting diode (LED), or other lighting sources that produce light that measures greater than 560 nanometers and absent wavelengths below 560 nanometers.

*Low-profile luminaire* means a light fixture set on a base that raises the source of light no higher than forty-eight (48) inches off the ground, and designed in such a way that light is directed downward from a hooded light source.

*Marine turtle* means any marine-dwelling reptile of the families Cheloniidae or Dermochelyidae found in Florida waters or using the beach as a nesting habitat, including the species: *Caretta caretta* (loggerhead), *Chelonia mydas* (green), *Dermochelys coriacea* (leatherback), *Eretmochelys imbricata* (hawksbill), and *Lepidochelys kemp* (Kemp's ridley). For purposes of this section, marine turtle is synonymous with sea turtle.

*Minimized* means a combination of Low-Shielded-Long light sources including fixtures being mounted as low as possible, using the lowest wattage necessary, completely downward directed and shielded, installing fewer fixtures, using a long wavelength light source, and using only if needed for safety.

*Nest* means an area where marine turtle eggs have been naturally deposited or subsequently relocated.

*Nesting season* means the period from April 1 through October 31 of each year.



New development means new construction and remodeling of existing structures when such remodeling includes alteration of exterior lighting and glass such as windows, railings, balconies, and doors.

*Nighttime* means the time period between sunset and sunrise within the city limits of Miami Beach.

*Person* means individuals, firms, associations, joint ventures, partnerships, estates, trusts, syndicates, fiduciaries, corporations, and all other groups or combinations.

*Pole lighting* means a light fixture set on a base or pole that raises the source of the light higher than forty-eight (48) inches off the ground.

Roof top advertising sign means an outdoor advertising display that is mounted on the top of a building's roof.

*Solar screens* mean screens that are fixed installations and permanently project shade over the entire ~~area of glass area of the window~~. The screens must be installed on the outside of the glass and must have a shading coefficient that meets or exceeds the requirements in the F.A.C. Rule 62B-55.004 ~~of forty-five (45) percent or less~~ and have performance claims supported by approved testing procedures and documentation.

*Tinted glass* means any glass treated to achieve an industry-approved inside-to-outside light transmittal value that meets or exceeds the requirements in the F.A.C. Rule 62B-55.004 ~~of forty-five (45) percent or less~~. Such transmittance is limited to the visible spectrum (four hundred (400) to seven hundred (700) nanometers) and is measured as the percentage of light that is transmitted through the glass.

#### **Sec. 46-203. Prohibited activities disruptive to marine turtles.**

(a) *[Prohibited generally.]* The following activities ~~involving direct illumination of portions of the beach~~ are prohibited on the beach at nighttime during the nesting season for the protection of nesting marine turtle females, nests and hatchlings:

- (1) The operation of all motorized vehicles, except emergency and law enforcement, or beach maintenance vehicles or those permitted on the beach for marine turtles conservation and/or research. Whenever possible, authorized vehicles used on the beach at night shall have red or amber filters covering the headlights.
- (2) The building of campfires or bonfires.
- (3) Fireworks displays, except those that occur from offshore barges that have City special event permits and a Florida Department of Environmental Protection ("DEP") permit or exemption.

(b) Operation of motorized vehicles. During nesting season the operation of all motorized vehicles, except emergency and law enforcement, or beach maintenance vehicles, or those permitted on the beach for marine turtles conservation and/or research

shall be prohibited on the beach unless authorized by the City of Miami Beach Police Department. Additionally, after sunrise the operation of authorized motorized vehicles must wait until Miami-Dade County has conducted its morning sea turtle nesting survey.

(b)(c) *Special events.* Special events taking place on the beach during nesting season that may have lighting needs shall require a permit or exemption from the Florida Department of Environmental Protection. Additionally, any lighting associated with a special event cannot be visible from the beach after 9:00 p.m. Any authorized lighting must be low wattage long wavelength light source, shielded, and directed away from the beach.

(e)(d) *Lighting standards for new development.* It is the policy of the City of Miami Beach that no artificial light shall be directly, indirectly, or cumulatively visible from illuminate any area of the beach. The following applies to lighting within line-of-sight of the beach that located east of the Coastal Construction Control Line (CCCL) or lighting that directly illuminates the beach and interferes with turtle nesting. To meet this intent, all public and private properties and uses involving new construction development, or renovations exceeding 50% of the value of the structure as determined by the Building Official, within line-of-sight of the beach located east of the CCCL shall comply with the following:

- (1) Exterior artificial light fixtures shall be designed and positioned so that the point source of light or any reflective surface of the light fixture is not directly, indirectly, or cumulatively visible from the beach; ~~areas seaward of the dune are not directly or indirectly illuminated.~~
- (2) Exterior artificial light fixtures within direct line-of-sight of the beach shall be completely shielded downlight only fixtures, or recessed fixtures having low wattage long wavelength light sources(i.e., "bug" type bulbs of fifty (50) watts or less) and non-reflective interior surfaces. Other fixtures that have appropriate shields, louvers or cut-off features may also be used if in compliance with the requirements of subsection (1) of this section.
- (3) All fixtures shall be mounted as low in elevation as possible through use of low-mounted wall fixtures, wall fixtures fitted with hoods, low bollards, step lights, path lights, paver lights, and ground-level fixtures, so that no light is directly, indirectly, or cumulatively visible from the beach ~~or illuminates the beach.~~
- (4) Floodlights, upward-oriented lights, spotlights or search lights for decorative and accent purposes, or used as security lights, are prohibited if they would be directly, indirectly, or cumulatively visible from the beach, ~~or would indirectly or cumulatively illuminate the beach.~~
- (5) Exterior lights used expressly for safety or security purposes shall be limited to the minimum number, minimum wattage, and configuration required to achieve the safety and security function in compliance with the provisions of Crime Prevention Through Environmental Design (CPTED). Motion detectors should be employed to keep lights off except when approached, and such motion detectors should switch lights on for the minimum duration possible.

- (6) Pole lights, if used, shall be fitted with long wavelength light sources and shall be shielded in such a manner that light will be contained primarily within the area that is landward of the pole, and light shall not be directly, indirectly, or cumulatively visible from the beach.
- (7) Lights on balconies, including step lights, that serve as egress areas from building and on catwalks, step lights within line-of-sight of the beach facing the ocean shall be limited to: low profile luminaries fitted with long wavelength light sources and positioned so that no light illuminates or is directly, indirectly, or cumulatively visible from the beach; wall-mounted fixtures fitted with hoods with non-reflective interiors so that no light illuminates the beach or overhead lighting containing bug-type bulbs or other bulbs with fifty (50) watts or less and non-reflective interior surfaces.
- (8) Tinted or filmed glass shall be installed on all glass windows, walls, balconies, elevator shafts, stairwells, railings, and glass doors of single and multi-story all structures facing or within line-of-sight of the beach. Shade Solar screens can be substituted for this requirement.
- (9) Parking areas and structures shall be designed and located to prevent vehicular headlights from being directly, or indirectly, or cumulatively visible from illuminating the beach. Parking area and parking structure lighting shall be shielded from the beach through the use of shields that direct light away from the beach, and ground-level barriers designed in conformance to the CPTED principals. Such ground-level barriers shall not interfere with marine turtle nesting or hatchling emergence and shall not cause short or long-term damage to the beach/dune system. Entrances and exits to parking structures shall not face the ocean. Surfaces of parking areas shall not contain ground glass or other reflective material.
- (10) Lighting provided for any outdoor recreational feature on or abutting the beach (such as tennis court, swimming pool, etc.) shall utilize low mounted fixtures such as bollards and path lights, be long wavelength only light sources, and be shielded to prevent light from being directly, or indirectly, or cumulatively visible from illuminating the beach.
- (11) Dune crosswalks, if lighted, shall utilize low profile shielded luminaries fitted with long wavelength light sources and only be used landward of the crest of the dune or beachwalk; no lights are authorized seaward of the dune crest or beachwalk.
- (12) No roof top advertising sign that is illuminated in any fashion shall be permitted. All illuminated signage should be sited on the landward side of the structure and mounted such that it is not within line of sight of the beach. Illuminated signage should use low wattage, long wavelength only light sources that are downward directed and fully shielded.
- (13) Temporary security lights at construction sites shall not be mounted more than fifteen (15) feet above the ground. Illumination from the lights shall be the minimum necessary to assure security, shall not spread beyond the boundary of the property being developed, shall be directed away from the beach, and in no case shall such lights be directly, indirectly, or cumulatively visible from illuminate the beach.

~~(d)(e)~~ *Lighting standards for new development that has already been permitted.* The provisions of subsection ~~(d)~~ ~~(e)~~ of this section shall not apply to any structure for which the City of Miami Beach Building Department has issued a building permit prior to the effective date of this division. Such structures shall be governed by the provisions of subsection ~~(f)~~ ~~(e)~~ of this section.

~~(e)(f)~~ *Lighting standards for existing development.* It is the policy of the City of Miami Beach that no artificial light shall be directly, indirectly, or cumulatively visible from illuminate any area of the beach. To meet this intent, lighting of existing structures, within line-of-sight of located east of the CCCL and that can be seen from the beach, shall be in compliance with the following:

- (1) Within six (6) months of the effective date of this article, existing artificial light fixtures shall be repositioned, modified, or removed so that the point source of light or any reflective surface is not directly, indirectly or cumulatively visible from the beach.:
  - ~~a. The point source of light or any reflective surface of the light fixture is not directly visible from the beach;~~
  - ~~b. Areas seaward of the frontal dune are not directly or indirectly illuminated;~~  
~~and~~
  - ~~c. Areas seaward of the frontal dune are not cumulatively illuminated.~~
- (2) Within one (1) year of the effective date of this article, the following measures shall be taken to reduce or eliminate the negative effects of existing exterior artificial lighting:
  - a. Reposition fixtures so that the point source of light or any reflective surface ~~of the light fixture~~ is no longer directly, indirectly, or cumulatively visible from the beach;
  - b. Replace fixtures having an exposed light source with fixtures containing recessed light sources or shields;
  - c. Replace traditional light bulbs with low wattage, long wavelength light sources ~~bug type bulbs not exceeding fifty (50) watts;~~
  - d. Replace non-directional fixtures with directional fixtures that point down and away from the beach;
  - e. Replace fixtures having transparent or translucent coverings with fixtures having opaque shields covering an arc of at least 180 degrees and extending an appropriate distance below the bottom edge of the fixture on the seaward side so that the light source or any reflective surface ~~of the light fixture~~ is not directly, indirectly, or cumulatively visible from the beach;
  - f. Replace pole lamps that are directly or indirectly visible from the beach with low-profile, low-level luminaries fitted with long wavelength light sources or add shielding so that the light source or any reflective surface ~~of the light fixture~~ is not directly, indirectly, or cumulatively visible from the beach; If the use of low-level luminaries is not feasible, pole lamps shall be fitted with long wavelength light sources and shall



be shielded in such a manner that light shall be contained primarily within the area that is landward of the pole, and light shall not be directly, indirectly, or cumulatively visible from the beach;

- g. Replace incandescent, florescent, and high intensity lighting with the lowest wattage long wavelength light sources ~~low pressure sodium vapor lighting~~ possible for the specific application;
- h. Plan or improve vegetation buffers between the light source and the beach to screen light from the beach;
- i. Construct a ground level barrier to shield light sources from the beach. Ground-level barriers must not interfere with marine turtle nesting or hatchling emergence, or cause short- or long-term damage to the beach/dune system;
- j. Permanently remove or permanently disable any fixture that cannot be brought into compliance with the provisions of these standards.

(3) Within one year of the effective date of this article, the following measures shall be taken to reduce or eliminate the negative effects of existing interior artificial light sources that are directly, indirectly, or cumulatively visible from the beach:

- a. Tinted or filmed glass shall be installed on all glass windows, walls, balconies, elevator shafts, stairwells, railings, and glass doors of single and multistory structures facing or within line-of-sight of the beach. Solar screens can be substituted for this requirement.

~~(3)~~(4) Commercial signage facing the ocean or in the line-of-sight of the beach, except building identification signs, shall not be illuminated during the hours of 9pm - 7am of nesting season within eighteen (18) months of the effective date of this article. Building identification signs within line-of-sight of the beach shall utilize low wattage, long wavelength light sources.

~~(4)~~ (5) Buildings located along Ocean Drive that are east of the CCCL line are allowed to maintain current outdoor lighting. Additional special event spotlights or lighting during turtle season should be minimized after 9pm and/or directed away from the beach. When conducting renovations, buildings are encouraged to replace Neon lighting with true red or amber LED lighting.

~~(f)~~(g) *Publicly owned lighting.* Street lights, existing lighting at parks, publicly owned parking facilities and publicly owned walkways shall be subject to the following:

- (1) *Streetlights.* Street lights installed after the effective date of this ordinance shall either be located so that the bulk of illumination will travel away from the beach, and shielding is used to prevent light from being directly, indirectly, or cumulatively visible from ~~illuminating~~ the beach, or shall be low profile luminaries. Street lights existing prior to the effective date of this ordinance shall be equipped with shields that prevent light from being directly, indirectly,

~~or cumulatively visible minimize backlighting shall not illuminate the beach and shall reduce visibility from the beach.~~

- (2) *Lighting at parks, publicly owned parking facilities and publicly owned walkways* shall be shielded or shaded during nighttime hours of nesting season so that such lighting ~~is not directly, indirectly, or cumulatively visible from~~ does not illuminate the beach and visibility is reduced from the beach. Such shielding or shading shall not create a CPTED problem or safety hazard for pedestrians.

\* \* \*

### **SECTION 2. REPEALER.**

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

### **SECTION 3. CODIFICATION.**

It is the intention of the City Commission, 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 as amended; that the sections of this ordinance may be renumbered or relettered to accomplish such intention; and that the word "ordinance" may be changed to "section" or other appropriate word.

### **SECTION 4. SEVERABILITY.**

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

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

This Ordinance shall take effect ten days following adoption.

This Ordinance shall take effect on the \_\_\_\_ day of \_\_\_\_\_, 2024.

**PASSED AND ADOPTED** this \_\_\_\_ day of \_\_\_\_\_, 2024.


**ATTEST:**

\_\_\_\_\_  
Steven Meiner, Mayor

\_\_\_\_\_  
Rafael E. Granado, City Clerk  
Underline denotes additions  
~~Strikethrough~~ denotes deletions

(Sponsored by Commissioner David Suarez)

APPROVED AS TO  
FORM & LANGUAGE  
& FOR EXECUTION

  
\_\_\_\_\_  
City Attorney

7/16/2024  
\_\_\_\_\_  
Date

# MIAMI BEACH

## COMMISSION MEMORANDUM

TO: Honorable Mayor and Members of the City Commission

FROM: Eric Carpenter, City Manager

DATE: September 11, 2024 First Reading

TITLE: TURTLE NESTING PROTECTION AMENDMENT  
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### **RECOMMENDATION**

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### **BACKGROUND/HISTORY**

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### **ANALYSIS**

The purpose of the attached ordinance amendment is to strengthen and clarify the provisions of the ordinance passed in 2006 and include recommended modifications by the Florida Fish and Wildlife Conservation Commission (FWC). Sea Turtles are protected by the U.S. Endangered Species Act of 1973 and Florida Statute Chapter 370. It is illegal to harm or harass sea turtles, their nests, or hatchlings. The City of Miami Beach is a nesting habitat for three species of protected sea turtles: Loggerhead, Green, and Leatherback sea turtles. Handling of turtles and nests is regulated by the State agency, FWC. Sea turtle nesting season in the State of Florida occurs between May 1 and October 31; however, sea turtle nesting season begins on April 1<sup>st</sup> in the City of Miami Beach to account for the earlier Leatherback nesting.

On beaches where artificial lighting is visible, females may be deterred from nesting and the hatchlings' journey to the sea can be disrupted as they can become disoriented, causing them to crawl away from the ocean and toward the artificial light. Hatchlings are attracted to the brightest source of light, which on an unlit beach would be the reflection of the moon off the surf. Beachfront lighting has been documented to negatively affect nesting females and often results in reduced or abnormal nesting activity. Visible light sources and the reflection of "glow" resulting from the cumulative effects of coastal lights contribute to this problem.

The City of Miami Beach is dedicated to the conservation and preservation of its natural resources and works with many stakeholders in advance of and through Sea Turtle Nesting Season (LTC No. 020-2024). The Environment and Sustainability Department is also implementing Flip the Switch, a communications campaign funded through a competitive Sea Turtle Conservancy grant.

The Miami-Dade County Sea Turtle Conservation Program works under a Marine Turtle Permit issued by FWC to survey over nineteen (19) miles of beaches from March to October. The surveys begin at sunrise every morning during sea turtle nesting season which include dedicated County staff identifying, marking off, and where applicable, relocating nests. No beach activities (beach maintenance operations, sand sifting, litter collection, concessionaire operations, special events, etc.) can begin before the daily survey is completed and County staff gives the authorization to begin activities on the beach. They also inventory hatched nests and document hatchling disorientations. According to the County, high densities of disorientation due to misdirected and artificial lighting were documented within South, Mid, and North Beach in 2022 and 2023. In 2023, 71 disorientation events out of 158 total nests were documented within Miami Beach. This equates to approximately 45% of nests that were disoriented due to misdirected artificial lighting. With an approximately 45% disorientation rate, Miami Beach has the second highest “disoriented nests per mile” rate in Miami-Dade County.

The objective of the ordinance amendment is to further reduce the damaging impacts of artificial light on sea turtles by updating sections of the ordinance for consistency with FWC recommendations. As such, modified language has been added throughout the ordinance to clarify lighting requirements and the major recommendations include but are not limited to the following:

- Amending, clarifying, and expanding the definitions in Section 46-202
  - Cell phones and flash photography have been added as sources of artificial light,
  - The “Bug type bulb” definition has been removed as it is outdated,
  - The terms ‘Beachwalk’, ‘F.A.C.’, ‘Long wavelength light source’, ‘Minimized’, ‘New Development’, and ‘Roof top advertising sign’ have been added and defined,
  - Definitions pertaining to light source type, ‘Filmed glass’, ‘Solar screens’, and ‘Tinted glass’ have been amended.
- Modifying the prohibitive activities disruptive to marine turtles in Section 46-203(a) –(c)
  - Language was added recommending the use of red or amber filters on vehicle headlights for vehicles authorized on the beach at night,
  - Fireworks displays are prohibited on the beachfront. Fireworks displays can occur from offshore barges provided they have approval from the Fire Department and a Florida Department of Environmental Protection permit or exemption,
  - The operation of motorized vehicles during nesting season is prohibited unless otherwise specified by the ordinance,
  - Lighting associated with special events cannot be visible from the beach after 9:00 p.m. to be consistent with FDEP and County requirements.
- Lighting standards for new development
  - Remove the “exceeding 50% of the value of the structure as determined by the Building Official” threshold for renovations to comply with lighting standards for new development,
  - Modify the lighting standards for new development to apply to lighting within line-of-sight of the beach, not just lighting east of the Coastal Construction Control Line (CCCL).



- Lighting standards for existing development
  - Modify the lighting standards for existing development to apply to lighting within line- of-sight of the beach, not just lighting east of the Coastal Construction Control Line (CCCL).
- Include lighting requirements for existing interior lights that are visible from the beach
  - Apply window tint of film that meets the light transmittance standards for tinted glass,
  - Rearrange lamps and other moveable fixtures away from windows,
  - Use of opaque shades or room darkening window treatments (e.g. blinds, curtains, screens) to shield interior lights from the beach.

A public workshop is being scheduled to review the proposed ordinance amendments and to answer questions from the community.

### **FISCAL IMPACT STATEMENT**

N/A

**Does this Ordinance require a Business Impact Estimate?** Yes  
(FOR ORDINANCES ONLY)

### **THE BUSINESS IMPACT ESTIMATE**

In accordance with Section 166.041(4), Florida Statutes, the City of Miami Beach is required to assess whether a Business Impact Estimate is required for the subject ordinance. A Business Impact Estimate shall be provided for Second Reading.

### **FINANCIAL INFORMATION**

N/A

### **CONCLUSION**

The Administration recommends the Mayor and City Commission approve the subject ordinance at First Reading and schedule a Second Reading public hearing for October 30, 2024. The objective of the ordinance amendment is to further reduce the damaging impacts of artificial light on the native sea turtle population by integrating Florida Fish and Wildlife Conservation Commission recommendations. Information regarding the ordinance will be communicated widely through a public outreach process and informational campaign.

### **Applicable Area**

Citywide

**Is this a "Residents Right to Know" item, pursuant to City Code Section 2-17?**

Yes

**Is this item related to a G.O. Bond Project?**

No

**Was this Agenda Item initially requested by a lobbyist which, as defined in Code Sec. 2-481, includes a principal engaged in lobbying?** No

If so, specify the name of lobbyist(s) and principal(s):

**Department**

Environment and Sustainability

**Sponsor(s)**

Commissioner David Suarez

**Co-sponsor(s)**

**Condensed Title**

NR- 1<sup>st</sup> Rdg, Turtle Nesting Protection Ordinance Amendment. (Suarez) EN