

City/County of _____, Florida

Chapter ____.

MODEL LIGHTING ORDINANCE FOR SEA TURTLE PROTECTION

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ORDINANCE NUMBER 20__-__
LAND DEVELOPMENT CODE

AN ORDINANCE OF THE CITY/COUNTY OF _____ AMENDING CITY/COUNTY CODE CHAPTER _____ PROVIDING FOR AMENDMENTS TO ADOPT MODEL LIGHTING REQUIREMENTS; PROVIDING FOR REPEAL OF ORDINANCES; PROVIDING FOR TERRITORY EMBRACED; PROVIDING FOR SEVERABILITY; PROVIDING FOR INCLUSION INTO THE CODE OF ORDINANCES; PROVIDING FOR EFFECTIVE DATE.

SECTION ___-1. – BASIS OF ORDINANCE

Sec. ___-1.1. - Findings of Fact

***Whereas, the City/County of _____** recognizes that artificial lighting of beaches is a serious threat to sea turtles and other species utilizing its beaches; and

***Whereas, the City/County of _____** recognizes that nesting adult and hatchling sea turtles are negatively affected by artificial light visible from any portion of the beach; and

***Whereas, the City/County of _____** recognizes that sea turtles are protected by federal and state law; and

***Whereas, the City/County of _____** recognizes that both its economy and the quality of life of its residents are enriched by a healthy sea turtle population; and

***Whereas, the City/County of _____** desires to minimize the detrimental impact on nesting sea turtle populations, and other listed sensitive wildlife by implementing a system of rules and regulations that reduces the amount of artificial light intentionally or unintentionally visible from beaches;

**Guidance: These generic Findings of Fact are illustrative only. Findings of Fact should relate to the specific context of the County or City adopting a sea turtle lighting ordinance and may include data on sea turtle nesting, and disorientation/misorientation if available. It may also include information on the qualitative and quantitative value of sea turtles to the specific beachfront economies.*

NOW, THEREFORE, BE IT ORDAINED, BY THE CITY COUNCIL/BOARD OF COUNTY COMMISSIONERS OF THE CITY/COUNTY OF _____ ON THIS ___ DAY OF ____, 20__.

Sec. ___-1.2. - Title of Ordinance

This ordinance shall be referred to as the **City/County of _____** Lighting Ordinance for Sea Turtle Protection.

Sec. ___-1.3. - Ordinance Purpose and Objectives

The purpose of this Ordinance is to protect nesting and hatchling sea turtles on the beaches in the **City/County of _____** by ensuring that their nesting habitat is not degraded by artificial light. The objective of the ordinance is to ensure artificial light does not interfere with sea turtle nesting and hatching events through the appropriate design and implementation of coastal lighting systems. In order to further the objective of full implementation, this Ordinance also includes provisions designed to

educate residents and beach users in the **City/County of _____** on the benefits of appropriate coastal lighting and provides for monthly inspections to ensure compliance with the acceptable lighting standards.

Sec. ___ -1.4. - Definitions

1. **Artificial Light**: the light emanating from any human-made device.
2. **Beach**: the zone of unconsolidated material that extends landward from the mean low water line to the place where there is marked change in material or physiographic form, or to the line of permanent vegetation.
3. **Cumulatively Visible**: visibility as a result of numerous artificial light sources that as a group are directly or indirectly visible to an observer standing anywhere on the beach.
4. **Directly Visible**: visibility of the glowing elements, lamps, globes, or reflectors of an artificial light source by an observer standing anywhere on the beach.
5. **Foot Candle**: the English unit for measuring illuminance; the illumination of a surface uniformly one foot from a point source of one candela; one lumen per square foot; equal to 10.76 lux.
6. **Fully Shielded**: a lighting fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal as determined by photometric test or certified by the manufacturer. Any structural part of the light fixture providing this shielding must be permanently affixed.
7. **Illumination**: more than zero footcandles of artificial light can be measured from any portion of the beach.
8. **Indirectly Visible**: visibility of reflected light as a result of glowing elements, lamps, globes, or reflectors of an artificial light source which is visible to an observer standing anywhere on the beach without the light source being directly visible.
9. **Long Wavelength**: a luminaire emitting light wavelengths of 560 nanometers or greater and absent wavelengths below 560 nanometers. Lamps that meet the definition of Long Wavelength through the use of filters, gels, or lenses are not recommended.
10. **Nesting Season**: the nesting period for sea turtles is from May 1 through October 31 of each year for all counties except Brevard, Indian River, St. Lucie, Martin, Palm Beach, and Broward. Nesting season for these counties is the period from March 1 through October 31 of each year (*due to the earlier nesting times for Leatherback Sea Turtles in these counties*).
11. **Nighttime**: the locally effective time period between sunset and sunrise.
12. **Non-egress Lighting**: lighting that is not being used to light a distinct path or meet minimum requirements for emergency egress, including but not limited to decorative lights (e.g. Christmas lights, strobe lights, string lights, etc.), balcony lights, landscape lights, and uplights.

13. **Outdoor Area:** any portion of a property that could have an artificial light source not attached to a permanent structure, including but not limited to pathway lighting, landscape lighting, pool lighting, etc.
14. **Sea Turtle:** any turtle, including all life stages from egg to adult, of these species: Green (*Chelonia mydas*), Leatherback (*Dermochelys coriacea*), Loggerhead (*Caretta caretta*), Hawksbill (*Eretmochelys imbricata*), and Kemp's Ridley (*Lepidochelys kemp*).
15. **Sea Turtle Nesting Habitat:** all sandy beaches adjoining the waters of the Atlantic Ocean, the Gulf of Mexico, and the Straits of Florida in all coastal counties and all inlet shorelines of those beaches. Nesting habitat includes all sandy beach and unvegetated or sparsely vegetated dunes immediately adjacent to the sandy beach and accessible to nesting female turtles.
16. **Temporary Lighting:** any non-permanent light source that may be hand-held or portable including but not limited to tiki torches, lanterns, flashlights (including cell phone flashlights), candles, flash photography, etc.

SECTION ___-2. - SEA TURTLE LIGHTING DISTRICT

Sec. ___-2.1. - Applicability

1. An overlay district, known as the *Sea Turtle Lighting District*, is hereby established within the **City/County of _____**.
2. The *Sea Turtle Lighting District* shall include all properties within the **City/County of _____**, that may produce artificial light directly, indirectly, or cumulatively visible from any portion of the beach, regardless of whether those properties are beachfront properties.
3. The provisions of this Ordinance applies to all buildings and related infrastructure, including landscaping, as well as all other activities within the *Sea Turtle Lighting District*.

*Guidance: This Model establishes an Overlay District for the purpose of implementing the ordinance. This ordinance could be applied by simply consolidating (2) and (3) above and making it applicable to "all properties within the **City/County of _____** that may produce artificial light directly, indirectly, or cumulatively visible from any portion of the beach, regardless of whether those properties are beachfront properties." However, creating a District may have other benefits which include incorporating other Sea Turtle best management practices not related to lighting, as well as raising awareness through signage, etc.*

Sec. ___-2.2. - Annual Public Notice

At least thirty days prior to the commencement of every sea turtle nesting season, the **City/County of _____** shall provide written notice of the provisions contained in this Ordinance to each property within the *Sea Turtle Lighting District*.

SECTION ___-3. - LIGHTING PROVISIONS

Sec. ___-3.1. - Exterior Lighting Affixed to Structures

1. All lighting affixed to the exterior of permanent structures shall be long wavelength, downward directed, full cut-off, fully shielded and mounted as close to the ground or finished floor surface as possible to achieve the required footcandles.
2. All non-egress lighting affixed to the exterior of permanent structures shall not be directly, indirectly, or cumulatively visible from any portion of the beach.
3. Lighting at egress points shall be limited to the minimum number of fixtures and footcandles necessary to meet federal, state, and local safety requirements.
4. Locations including but not limited to stairwells, elevators, parking garages, or courtyards shall not produce light that is directly, indirectly, or cumulatively visible from any portion of the beach. Window film, tinting, light screens, shades or curtains shall be used to block visibility of interior lights from the beach. Light screens shall be used on open or enclosed staircases on the seaward or shore-perpendicular side of a building or for parking garages to limit visibility of lights from the nesting beach.
5. All glass windows, walls, railings and doors on the seaward and shore-perpendicular sides of any new construction shall utilize glass with an inside to outside light transmittance value of 15% or less.
6. Emergency lights shall be on a separate circuit and activated only during power outtages or other situations in which emergency lighting is necessary for public safety.

Sec. ___-3.2. - Outdoor Areas

1. All lighting of outdoor areas shall be long wavelength, downward directed, full cut-off, fully shielded and mounted as close to the ground or finished floor surface as possible to achieve the required footcandles.
2. All pathway lighting shall utilize low level fixtures that do not exceed 42 inches in height. Fixtures shall be downward directed and utilize long wavelength lamps and beachside shields.
3. All non-egress outdoor lighting affixed to the exterior of permanent structures shall not be directly, indirectly, or cumulatively visible from any portion of the beach.
4. Internally or externally lighted signs shall not be located on the seaward and shore-perpendicular sides of any structures, and shall not produce light that is directly, indirectly, or cumulatively visible from any portion of the beach.
5. Ponds and fountains on the seaward and shore-perpendicular sides of any structures shall not produce light that is directly, indirectly, or cumulatively visible from any portion of the beach.
6. Fire pits shall be shielded with an opaque structure or partition, and positioned such that the flame is not directly, indirectly, or cumulatively visible from any portion of the beach.
7. Televisions shall be located landward of the dune and shall be shielded or positioned such that they are not directly, indirectly, or cumulatively visible from the beach.
8. Temporary lighting shall not be directly, indirectly, or cumulatively visible from the beach.

Sec. ___-3.3. - Parking Areas And Roadways

1. All lighting of parking areas and roadways shall be long wavelength, downward directed, full cut-off, fully shielded, and mounted to the minimum level required to maintain compliance with federal, state and local law.
2. Parking area and roadway lighting shall be shielded from the beach via vegetation, natural features, or artificial structures rising from the ground. These shall prevent artificial light sources, including but not limited to vehicular headlights, from producing light that is directly, indirectly, or cumulatively visible from any portion of the beach.
3. Lighting of roadways and parking areas shall produce no more lighting than the minimum requirement as outlined by federal, state and local law.
4. Lighting of parking areas and roadways shall consist of either:
 - a. Ground-level downward-directed fixtures, equipped with interior dark-colored, non-reflective baffles or louvers, mounted either with a wall mount, on walls or piles, facing away from the beach, or
 - b. Bollard-type fixtures, which do not extend more than 42 inches above the adjacent floor or deck, measured from the bottom of fixture, equipped with downward-directed louvers that completely hide the light source, and externally shielded on the side facing the beach, or
 - c. Pole-Mounted Lights, if required, which shall adhere to the restrictions located in subsection (5).
5. Pole-mounted lights shall only be used in parking areas and roadways when mounting the lights at lower elevations cannot practicably comply with minimum light levels set forth in applicable federal and state laws designed to protect public safety. If required, pole-mounted lights shall be:
 - a. Located on the landward sides of buildings and shall not produce light that is directly, indirectly, or cumulatively visible from any portion of the beach,
 - b. Mounted at the minimum height necessary to meet the minimum light level requirement , and
 - c. Downward-directed onto non-reflective surfaces.
6. Equipment yards, storage yards, and temporary security lights shall also adhere to the lighting restrictions contained in this Section.

Sec. ___-3.4. - Pool Areas

1. Lighting of pool decks, pool facilities, swimming pools, and spas shall be long wavelength and fully shielded.
2. Lighting of the pool water surfaces and the pool wet deck surfaces shall comply with the minimum light levels set forth in applicable federal and state laws designed to protect public safety.
3. Above-water lighting of pool decks, pool facilities, swimming pools, and spas shall otherwise adhere to the applicable requirements for acceptable light fixtures contained in Section 1 and Section 2 of this Section.

4. Underwater lighting of pools or spa light shall:
 - a. Be mounted horizontally in the wall,
 - b. Not produce light that is directly, indirectly, or cumulatively visible from any portion of the beach, and
 - c. Shall comply with minimum light levels set forth in applicable federal and state laws designed to protect public safety.

Sec. ___-3.5. - Pier Structures

1. Lighting of pier structures projecting over the beach or over water shall be long wavelength, downward-directed, and fully shielded.
2. Lighting of pier structures projecting over the beach, or over water, shall be mounted no higher than 42 inches above the deck surface. These shall be directed onto the deck surface only, preventing light pollution or light spillage beyond the walking surface.
3. Lighting of pier structures projecting over the beach or over water shall comply with minimum light levels set forth in applicable federal and state laws designed to protect public safety.

Sec. ___-3.6. - Dune Walkovers And Beach Access Points

1. Lighting of beach access points shall be restricted to that portion of the structure landward of the dune. All lighting of beach access points shall be long wavelength, downward directed, full cut-off and fully shielded and shall not be directly, indirectly, or cumulatively visible from the beach.
2. No lights shall be permitted on dune walkovers or elevated walkovers to the beach.

Sec. ___-3.7. - Special Events, Motor Vehicles, and Temporary Lighting

1. All special events or construction taking place on or adjacent to the beach shall require a permit from the Florida Department of Environmental Protection.
2. Lighting associated with a special event that may directly, indirectly, or cumulatively be visible from any portion of the beach shall not be authorized at nighttime during sea turtle nesting season.
3. The operation of all motorized vehicles, except emergency and law enforcement vehicles or those permitted on the beach for sea turtle conservation or other research and conservation, shall be prohibited on the beach at nighttime during sea turtle nesting season.
4. All temporary construction lighting shall be:
 - a. Incorporate all the standards of this Section, including utilizing fixtures that are long wavelength, downward directed, full cut-off, and fully shielded so light is not directly or indirectly visible from the beach, and
 - b. Turned off during nighttime in sea turtle nesting season, or if temporary lighting is deemed necessary during sea turtle nesting season it shall only be allowed from 6:00am to 9:00pm,

must be restricted to the minimal amount necessary, and shall incorporate all the standards of this Section, and

- c. Mounted less than eight feet above the adjacent floor or deck, measured from the bottom of fixture, and
- d. Restricted to the minimal number of footcandles necessary to conform to the applicable construction safety regulations.

SECTION ___-4. - COMPLIANCE AND ENFORCEMENT PROCEDURES

Sec. ___-4.1. - Beach Lighting Inspector

1. A position, known as the **City/County of _____ Beach Lighting Inspector**, is hereby established.

Guidance: While the model creates a beach lighting inspector, local governments may choose to identify someone already on staff, such as a code enforcement officer, for the position. It is most important that the designated individual receive appropriate training.

2. It shall be the duty of the City/County Manager to appoint the *Beach Lighting Inspector*. The *Beach Lighting Inspector* shall have the necessary training and technical knowledge to enable them to effectively carry on the duties of this office.
3. The *Beach Lighting Inspector* shall be responsible for:
 - a. Inspecting the entire beach within the jurisdictional boundaries of the **City/County of _____** every month during sea turtle nesting season to determine the extent of compliance with this Ordinance.
 - b. In the event of the finding of a violation at a particular public or private property, conducting further inspections at the property at any time beginning on the night after the deadline date given on the written notice of violation. These follow-up inspections shall continue until the lighting has been brought into compliance with this Ordinance.
4. It shall be unlawful for any person to interfere with, or in any manner hinder the *Beach Lighting Inspector*, or any of their assistants, while in the discharge of their duties under the terms of this Ordinance.
5. It shall be unlawful for any person to knowingly conceal or disable any lighting on a property before it has been inspected by the *Beach Lighting Inspector*.

Sec. ___-4.2. - Notice of Violation

1. Upon finding any violation of this Ordinance, the *Beach Lighting Inspector* shall deliver a written notice of the violation of this Ordinance to the property owner and direct said owner to promptly remove or cure such lighting arrangement not in compliance with this Ordinance.
2. The time allowed for making the repairs shall be stated in the notice and should the responsible party neglect or refuse to remove or cure the unacceptable lighting arrangement within the specified time

stated in the notice, the party so offending shall commit a violation of this Ordinance and be penalized as provided in Subsection ___-4.3 of this Ordinance.

Sec. ___-4.3. - Penalties

1. Any person who takes any action or omission in violation of any provision of this Ordinance and fails to cure such violation after proper notice is provided, shall be subject to a fine of up to \$250 per day per violation for initial violations, and \$500 per day per violation for repeat violations. All penalties incurred as a result of violation of this Ordinance shall continue to accrue until such violations are cured.
2. The **City/County of _____** shall have the right to encumber such property in violation of this Ordinance with a lien for an amount equal to the total amount of fines owed at the time such lien is recorded.

Sec. ___-4.4. - Sea Turtle Fund

1. A *Sea Turtle Fund* is hereby established within the **City/County of _____**.
2. All funds collected as a result of the issuance of fines under Section 3 of this Part shall be deposited in the *Sea Turtle Fund*. The funds in this account shall be used for:
 - a. Grants to property owners for the installation of light systems that comply with this Ordinance and reduce the amount of artificial beach lighting,
 - b. Educational materials to inform the general public on the threats of artificial lighting to sea turtles, including but not limited to signs, door knockers, pamphlets, stickers, public service announcements, and other awareness campaigns, and
 - c. Other reasonable efforts to protect the sea turtle population within the **City/County of _____**, including but not limited to research and conservation projects.
3. The **City/County of _____** may contribute funding from other sources into the *Sea Turtle Fund* for uses consistent with the purposes set forth above.

SECTION ___-5. - OTHER CLAUSES

Sec. ___-5.1. - Conflict With Other Ordinances

If this Ordinance conflicts with any other Ordinance or requirement of the **City/County of _____**, then this Ordinance shall control during sea turtle nesting season unless such ordinance is specifically directed at public safety. Deviations from this Ordinance for public safety shall be subject to the variance procedures as established by this City/County.

Sec. ___-5.2. - Severability

If any Section or Subsection of this Ordinance is invalidated for any reason, the effected portion may be eliminated or modified to correct the reason of invalidation, if feasible without materially altering or negating the Ordinance Goals and the principles of sea turtle lighting.

Sec. ___-5.3. - Effective Date

The **City/County of** _____ Lighting Ordinance for Sea Turtle Protection shall become effective upon recommendation by _____ and approval by the _____.

APPENDICES:

Appendix 1: Sample Beach Lighting Inspection Worksheet

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