

U.S. Fish and Wildlife Service
Preliminary review of the draft 11/20/07 Turtle Protection Ordinance
November 27, 2007

General comments:

1. The existing pilot beachfront lighting ordinance was not used as a template for this draft. The existing ordinance has proven to reduce disorientations of nesting and hatchling sea turtles. This draft does not provide the protection to sea turtles as the pilot ordinance.
2. The concept of Wildlife Lighting needs to be incorporated into the ordinance. *Wildlife Lighting*: Artificial lighting that minimizes the potential for negative affects to the nocturnal behaviors of nesting and hatchling sea turtles and other wildlife. Based on the premise of Keep it Low, Keep it Shielded, and Keep it Long, the following criteria apply:
 - a. The light source is mounted as low to the ground or floor as possible through the use of fixtures such as, low-mounted wall fixtures, low bollards, and ground-level fixtures;
 - b. The lumens emitted by the light source are the minimal required for the intended application;
 - c. The light source is contained within a full cut-off or fully shielded fixture such that no light is broadcast above a horizontal plane and the point source of light and any reflective surfaces of the fixture are not directly visible from the beach;
 - d. Lamps emit only long-wavelength light (580 to 680 nm). These long-wavelength light sources include low pressure sodium vapor lamps 8000 lumens or less, bug and some color-filtered compact fluorescent lamps 480 lumens or less, amber and red LEDs (light emitting diodes), and true red neon.

Luminaires, light fixtures, lamps, and other light sources that have been certified as meeting the criteria of Wildlife Lighting can be found on the joint Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service Wildlife Lighting Certification Program (LCP) website URL:
(<http://myfwc.com/seaturtle/WildlifeLighting/index.htm>).

3. The draft ordinance provides little to no flexibility for property owners and managers to use correct lighting.

Definitions:

1. *Beachfront*: The coverage area for the ordinance needs to be better defined and expanded. The coverage area needs to include the first tier of development/property on the north or landward side of Front Beachfront and Thomas Drives. Consideration should be given to renaming the coverage area from “beachfront” to “Sea Turtle Lighting Area;” since the term “beachfront” is a common term and may confuse the issue.
2. *Bug bulb*: add “and restricted to no more than 480 lumens.”
3. *CCCL*: Revise using one of below (all taken from FDEP website).

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- a. option 1: delete " which defines....." add "and protects the beach and dune system from imprudent upland construction that could weaken, damage or destroy the integrity of the beach and dune system. "
- b. option 2: delete " which defines....." add "and defines an area of extreme impact during major storm events that do not occur often, but which inevitably impact the coast on a broadly predictable basis."
- c. delete " and filed....." and add "the CCCL establishes an area of jurisdiction in which special siting and design criteria are applied for construction and related activities. These standards are often more stringent than those applied in the rest of the coastal building zone. Construction closest to the beach is subject greater wind, wave and surge forces expected to occur in the more seaward zone of the beach during a storm event.

4. *New development*: Reference Land Development Codes for better clarification.

Section 3. Standards for New Development.

- 1. (1) *Exterior Lighting*.
 - i. Too restrictive as written. Reword as "Unless otherwise exempted herein, only Wildlife Lighting, as defined in this Ordinance, shall be used for all exterior applications, with the exception that long-wavelength lamps are only required in fixtures within line-of-sight of the beach."
 - ii. Too open for interpretation as written. Reword as "Exterior lights used expressly for safety or security purposes shall comply with all of the standards in this section. Motion sensors may be used for lights not within line-of-sight of the beach.
- 2. (2) *Windows and Glass doors*. Delete "or solar screens" and "with in" should be spelled "within."
- 3. (3) *Other exterior lights*. Delete this item.
- 4. *Additional items needed under new development*.
 - a. Up-lighting is prohibited, because it contributes to skyglow, which can be disruptive to nesting and hatchling sea turtles.
 - b. All ceiling mounted fixtures are prohibited, including light kits on exterior ceiling fans.
 - c. Pole-mounted lights shall only be used for those applications where mounting the lights at lower elevations cannot practicably achieve the required foot candles to conform to state and/or federal regulations/laws (e.g., ATMs, parking and pool deck areas). Where used, these fixtures and lamps may not be mounted at a

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height greater than 12 feet above the ground. Pole-mounted lights shall not be used for pathway or access area lighting.

- d. Lighting of dune walkovers and elevated crossovers to the beach are prohibited, as per Florida Administrative Code (Chapter 62B-34, General Activities Seaward of the Coastal Construction Control Line).
- e. Temporary lighting of construction sites, if not otherwise prohibited under FAC 62B-33.0015, shall be restricted to the minimal number of lights necessary to conform to state and/or federal safety standards (e.g., OSHA). These lights shall be mounted no more than 8 feet above the ground.
- f. Open-air parking area lighting shall comply with all of the standards in this section.
- g. Stairwells, elevator shafts, and enclosed parking garages that allow light to escape through windows or other openings within line-of-sight of the beach shall use lighting that complies with all of the standards of this section.
- h. All signs within line-of-sight of the beach shall be externally illuminated from above (downward) with full cut-off luminaires.
- i. Roadway lighting within line-of-sight of the beach shall use full cut-off low-pressure sodium lights (LPS) 55 watts or less mounted no higher than 20 feet above the ground. Additional shielding shall be installed if the light sources can be observed from the beach. High-intensity lighting applications not within line-of-sight of the beach shall use either full cut-off LPS 55 watts or less or full cut-off high pressure sodium (HPS) lights 150 watts or less mounted no higher than 25 feet above the ground.
- j. Utility leased lighting including “yard” or security lights, shall comply in all respects with the above standards imposed for roadway lighting.
- k. Outdoor light fixtures producing light directly by the combustion of fossil fuels (such as kerosene lanterns, gas lamps, etc.) shall be allowed provided such fixtures are not within line-of-sight of the beach, are top shielded, are not open torches, not mantle based, use only a single gas jet, and provide illumination less than 480 lumens.
- l. Before granting any building permit, the Bay County Building Department and City of Panama City Beach shall determine that all proposed construction complies in all respects with the standards imposed in this section. Detailed project lighting plans shall be submitted to the County/City showing the location of all exterior light sources relative to adjacent nesting habitat. The plans must identify the location, number and type of lighting to be used for all fixtures.

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Section 3. Standards for Existing Development.

1. (1) *Exterior Lighting*. The limit of 50,000 initial lumens is not based on scientific data and does not distinguish between commercial large-scale developments and single family homes. All but the date of required changes should be deleted. The date should be May 1, 2009.
 - i. Too open for interpretation as written. Reword as “Exterior lights used expressly for safety or security purposes shall comply with all of the standards in this section. Motion sensors may be used for lights not within line-of-sight of the beach.

3. (2) *All other existing exterior lighting*. This section should be deleted and revised as “Only Wildlife Lighting, as defined in this Ordinance, shall be used for all exterior applications, with the exception that long-wavelength lamps are only required in fixtures within line-of-sight of the beach.”

4. *Additional needed items:*
 - a. Documented disorientation of nesting or hatchling sea turtles from interior lighting may be a violation of the U.S. Endangered Species Act or the Florida Marine Turtle Protection Act. Therefore, voluntary application of one or more of the following as applicable. 1) install window tinting or tinted glass on all windows and glass doors of single or multi-story structures within line-of-sight of the beach; 2) use window treatments (shades, blinds, etc.) to shield interior lights from the beach at night during the sea turtle nesting season; 3) rearrange lamps and other moveable fixtures away from windows; and 4) turn off unnecessary interior lights.
 - b. Remove all up-lighting within line-of-sight of the beach because it contributes to skyglow, which can be disruptive to nesting and hatchling sea turtles.
 - c. Ensure all exterior ceiling recessed mounted fixtures within line-of-sight of the beach have black baffles installed.
 - d. Remove all light kits on exterior ceiling fans.
 - e. Ensure the use of pole-mounted lights within line-of-sight of the beach are only for those applications where mounting the lights at lower elevations cannot practicably achieve the required foot candles to conform to state and/or federal regulations/laws (e.g., ATMs, parking and pool deck areas). Where used, these fixtures and lamps may not be mounted at a height greater than 12 feet above the ground. Pole-mounted lights shall not be used for pathway or access area lighting. Otherwise remove and replace the lights with Wildlife Lighting.

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- f. Remove all lighting on dune walkovers and elevated crossovers to the beach in accordance with Florida Administrative Code (Chapter 62B-34, General Activities Seaward of the Coastal Construction Control Line).
- g. Use temporary lighting of construction sites, if not otherwise prohibited under FAC 62B-33.0015, and shall be restricted to the minimal number of lights necessary to conform to state and/or federal safety standards (e.g., OSHA). These lights shall be mounted no more than 8 feet above the ground.
- g. Open-air parking area lighting within line-of-sight of the beach shall comply with all of the standards in this section.
- h. Stairwells, elevator shafts, and enclosed parking garages that allow light to escape through windows or other openings within line-of-sight of the beach shall use lighting that complies with all of the standards of this section.
- i. All signs within line-of-sight of the beach shall be externally illuminated from above (downward) with full cut-off luminaires.
- j. Roadway lighting within line-of-sight of the beach shall use full cut-off low-pressure sodium lights (LPS) 55 watts or less mounted no higher than 20 feet above the ground. Additional shielding shall be installed if the light sources can be observed from the beach. High-intensity lighting applications not within line-of-sight of the beach shall use either full cut-off LPS 55 watts or less or full cut-off high pressure sodium (HPS) lights 150 watts or less mounted no higher than 25 feet above the ground.
- k. Utility leased lighting including “yard” or security lights, shall comply in all respects with the above standards imposed for roadway lighting.
- m. Outdoor light fixtures producing light directly by the combustion of fossil fuels (such as kerosene lanterns, gas lamps, etc.) shall be allowed provided such fixtures are not within line-of-sight of the beach, are top shielded, are not open torches, not mantle based, use only a single gas jet, and provide illumination less than 480 lumens.

Public Notice. Property owners that remit Tourist Development Council Bed Taxes within the beachfront must post standardized signs at conspicuous locations within common areas of their property and provide printed information notifying renters of this ordinance and its provisions. These materials will be developed by Bay County TDC and provided at cost to affected property owners.

Enforcement of the Ordinance. There is no provision for enforcement of the ordinance. This provision should be consistent with pilot enforcement provision.