

ORDINANCE NO. 02-07

AN ORDINANCE OF BAY COUNTY, FLORIDA, ESTABLISHING A SEA TURTLE CONSERVATION ZONE AND LIGHTING ORDINANCE IN THE WESTERN BEACHES AREA OF UNINCORPORATED BAY COUNTY; PROVIDING FOR A PURPOSE AND APPLICABILITY; PROVIDING FOR DEFINITIONS; PROVIDING STANDARDS FOR NEW CONSTRUCTION ACTIVITIES; PROVIDING STANDARDS FOR EXISTING LIGHTING; PROVIDING FOR ENFORCEMENT AND PENALTIES; PROVIDING FOR INTERPRETATION; PROVIDING FOR SEVERABILITY AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Bay County, Florida, is a coastal community with an extensive shoreline on the Gulf of Mexico; and,

WHEREAS, Bay County's extensive shoreline is good habitat for sea turtle nesting and many sea turtles make their nests on Bay County's beaches; and,

WHEREAS, Bay County's shoreline is developed or will be developed with numerous structures on the shoreline in close proximity to sea turtle nests; and,

WHEREAS, structures which are built on or near the shoreline usually include some source of artificial lighting; and,

WHEREAS, scientific studies have determined that certain types of artificial lighting have a detrimental effect on nesting sea turtles and their hatchlings due to the disorientation that occurs when the sea turtle mistakes the artificial lighting as the reflection of the moon light from the waters of the Gulf of Mexico; and,

WHEREAS, the Bay County Board of County Commissioners (the "Board") is desirous of implementing this lighting ordinance with the intention that the detrimental effects of artificial lighting on sea turtles will be relieved; and,

WHEREAS, the Board desires to test the effects of this ordinance first in the limited area of the

westernmost beaches area of unincorporated Bay County with the intention to expand it to other areas of Bay County; provided that, the expected positive effects of the ordinance are realized;

NOW THEREFORE, BE IT ORDAINED by the Board of County Commissioners of Bay County, Florida:

Section 1. PURPOSE AND APPLICABILITY

(1) This purpose and intent of this ordinance is to protect threatened and endangered sea turtles along the Gulf of Mexico beaches in the western unincorporated area of Bay County from the westernmost municipal boundary of the City of Panama City Beach west to the Bay/Walton County boundary. This ordinance is intended to protect nesting sea turtles and sea turtle hatchlings from the adverse effects of artificial lighting, provide overall improvement in nesting habitat degraded by light, and to increase successful nesting activity and production of hatchlings on the beaches.

(2) The provisions of this ordinance apply during the nesting season. Note that "nesting season" is defined in Section 2.

Section 2. DEFINITIONS

(1) *Artificial light or artificial lighting* means the light emanating from a manmade point source (see *Point source of light*, below).

(2) *Beach* means the zone of unconsolidated material that extends landward from the mean low-water line to the place where there is a marked change in material or physiographic form, or to the line of permanent vegetation, usually the effective limit of storm waves.

(3) *Bug type light* means any yellow colored incandescent light bulb that is specifically treated in such a way so as to reduce the attraction of bugs to the light, but does not include bug killing devices.

(4) *Construction* means the carrying out of any building, clearing, filling, excavating or substantial improvement in the size or use of any structure or the appearance of any land. When appropriate to the context, the term "construction" refers to the act of constructing or the result of construction, and includes remodeling or reconstruction of existing buildings or structures.

(5) *Cumulatively illuminated* means illuminated by numerous artificial light sources that as a group illuminate any portion of the beach.

(6) *Directly illuminated* means illuminated by one or more point sources of light directly visible to an observer on the beach.

(7) *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.

(8) *Frontal dune* means the first natural or human-made mound or bluff of sand which is located landward of the beach and which has sufficient vegetation, height, continuity, and configuration to offer protective value.

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

(10) *Hatchling* means any individual of a species of sea turtle, within or outside of a nest, that has recently hatched from an egg.

(11) *Indirectly illuminated* means illuminated by one or more point sources of light not directly visible to an observer on the beach.

(12) *Low-pressure sodium light* means an electric discharge lamp containing sodium, neon, and argon, that when illuminated appears amber-yellow.

(13) *Nest* means an area where sea turtle eggs have been naturally deposited or subsequently relocated by an authorized permittee of the Florida Department of Environmental Protection.

(14) *Nesting season* means the period from sunset until sunrise during May 1 through October 31 of each year.

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

(16) *Point source of light* means a manmade source emanating light, including, but not limited to: incandescent, tungsten-iodine (quartz), mercury vapor, fluorescent, metal halide, neon, halogen, high-pressure sodium, low-pressure sodium light sources, as well as torches, camp and bonfires.

(17) *Pole lighting* means a light fixture set on a base or pole which raises the source of light higher than twenty four (24) inches off the ground.

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

(19) *Sea Turtle Conservation Zone* means the beach area seaward of the Coastal Construction Control Line in the unincorporated area of Bay County from the westernmost municipal boundary of the City of Panama City Beach west to the Bay/Walton County boundary.

(20) *Shield* means a non-reflective covering, canopy or other such device fitted over and extended below a light source preventing light from illuminating the beach.

(21) *Turtle glass* means any tinted glass treated to achieve an industry-approved, inside-to-outside light transmittance value of 45% or less. Such transmittance is limited to the visible spectrum (400 to 700 nanometers) and is measured as the percentage of light that is transmitted through the glass.

Section 3. STANDARDS FOR NEW CONSTRUCTION ACTIVITIES

In order to provide the highest level of protection for nesting sea turtles and their hatchlings, the following standards for artificial light sources on all new coastal construction in the Sea Turtle Conservation Zone are adopted:

(1) Exterior artificial light fixtures shall be designed and positioned so that:

(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) Exterior artificial light fixtures within direct line-of-sight of the beach will be permitted only

if designed and installed as follows:

- (a) Completely shielded downlight only fixtures or recessed fixtures having bug lights not exceeding 50 watts and non-reflective interior surfaces are used. Other fixtures that have appropriate shields, louvers, or cutoff features may also be used if they are in compliance with subsection (1)(a), (b) and (c) above; and
 - (b) All fixtures are mounted as low in elevation as possible through the use of low-mounted wall fixtures, low bollards, and ground-level fixtures.
- (3) Floodlights, uplights or spotlights that are directly visible from the beach, or which indirectly or cumulatively illuminate the beach, are prohibited.
- (4) Exterior lights used expressly for safety or security purposes must comply with subsection 2(a) and shall be limited to the minimum number and configuration required to achieve their functional role(s). The use of motion detector switches that keep lights off except when approached and that switch lights on for the minimum duration possible are required.
- (5) Only low intensity lighting shall be used in parking areas within line-of-sight of the beach. Such lighting shall be:
- (a) Set on a base which raises the source of light no higher than 48 inches off the ground; and
 - (b) Positioned or shielded so that the light is cast downward and the source of light or any reflective surface of the light fixture is not visible from the beach and does not directly or indirectly illuminate the beach.
- (6) Parking area lighting, and roadway lighting shall be shielded from the beach through the use of ground-level barriers. Ground-level barriers must not interfere with sea turtle nesting or hatching emergence, or cause short or long term damage to the beach/dune system.
- (7) Turtle glass shall be installed on all windows and glass doors of single or multi-story structures within line-of-sight of the beach.
- (8) Use of appropriately shielded low-pressure sodium lights and fixtures will be encouraged for high-intensity lighting applications such as lighting parking areas and roadways, providing security, and similar applications.
- (9) Temporary lighting of construction sites during the sea turtle nesting season shall be restricted to the minimal amount necessary and shall incorporate all of the standards of this section.
- (10) Before granting any building permit, the Bay County Builders Services shall determine that all proposed construction complies in all respects with the standards imposed in this section.
- (11) Utility leased lighting shall comply in all respects with the standards imposed in this

ordinance.

(12) No lighting shall be allowed on dune walkovers.

Section 4. STANDARDS FOR EXISTING LIGHTING

In order to provide the highest level of protection for nesting sea turtles and their hatchlings, the following standards for existing artificial light sources, including utility leased lighting, within the Sea Turtle Conservation Zone shall be brought into compliance by May 1, 2003:

(1) Existing artificial light fixtures shall be repositioned, modified, disconnected, or removed so that:

(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) Existing artificial light fixtures that are replaced for any reason shall comply with Section 3. Standards for New Construction Activities and the following measures shall be taken:

(a) Reposition fixtures so that the point source of light or any reflective surface of the light fixture is no longer 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 bug lights not exceeding 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 visible from the beach;

(f) Replace pole lamps with low-profile, low-level luminaires so that the light source or any reflective surface of the light fixture is not visible from the beach;

(g) Replace incandescent, fluorescent, and high intensity lighting with the lowest wattage low-pressure sodium lighting possible for the specific application;

(h) Plant or improve vegetation buffers between the light source and the beach to screen light from the beach.

(i) Permanently remove or permanently disable any fixture which cannot be brought into compliance with the provisions of these standards:

(3) One or more of these voluntary measures as applicable, shall be encouraged to reduce or eliminate the negative effects of interior light emanating from doors and windows within line-of-sight of the beach:

(a) Apply window tint or film that meets the standards of turtle glass;

(b) Rearrange lamps and other moveable fixtures away from windows;

(c) Use window treatments (i.e., blinds, curtains) to shield interior lights from the beach;

and

(d) Turn off unnecessary lights.

Section 5. ENFORCEMENT AND PENALTIES

The enforcement and penalties of this ordinance shall be the same manner as provided in Section 125.69 Florida Statutes, as may be amended from time to time. Each day of any such violation shall constitute a separate and distinct offense. In addition to the Bay County Code Enforcement Office, the Department of Environmental Protection and the Florida Fish and Wildlife Conservation Commission (Marine Patrol) shall have authority to enforce the ordinance.

The Board, by Resolution, will require property owners that remit Tourist Development Council Bed Taxes within the Sea Turtle Conservation Zone to post a sign on their property informing renters of this ordinance and the provisions within it.

Section 6. INTERPRETATION

The provisions of this ordinance shall be construed in order to effectively carry out its purpose. Where any provision of this ordinance refers to or incorporates another provision, ordinance, statute, rule, regulation, policy, official publication, or other authority, it refers to the most current version, incorporating any amendments thereto or redesignation thereof.

Section 7. SEVERABILITY

If any section, subsection, sentence, clause or provision of this ordinance is held invalid by a court of competent jurisdiction, the remainder of the ordinance shall not be affected.

Section 2. EFFECTIVE DATE

This ordinance shall take effect as provided by law.

DONE AND ADOPTED this 21st day of May, 2002.

BOARD OF COUNTY COMMISSIONERS
OF BAY COUNTY, FLORIDA

Carol Groat
CHAIRMAN

ATTEST:

Harold Buzel
CLERK OF THE COURT
by: Jimmy Hoffman
Deputy Clerk



Approved as to correctness
of form

W. S. R.
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