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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

KENT D. HEDRICK

ON BEHALF OF

PROGRESS ENERGY FLORIDA

DOCKET NO. 050007-EI

August 8, 2005

Q. Please state your name and business address.

A. My name is Kent D. Hedrick. My business address is Post Office Box 14042,
St. Petersburg, Florida 33733.

Q. By whom are you employed and in what capacity?

A. I am employed by Progress Energy Florida as Manager of Environmental
Performance and Technical Assessment.

Q. What is the scope of your duties?

A. Currently, my responsibilities include management of the environmental
compliance functions and performing environmental technology assessments for
Progress Energy Florida (PEF or "Company").

Q. Please describe your educational background and professional experience.

1 **A.** I received a Bachelors of Science degree in Environmental Engineering from the
2 University of Florida. In addition, I am a registered professional engineer in the
3 State of Florida. Currently I hold the position of Manager of Environmental
4 Performance and Technical Assessment. Before then, I held several
5 environmental management positions with the Company.

6

7 **Q.** **Have you previously filed testimony before this Commission in connection**
8 **with Progress Energy Florida's Environmental Cost Recovery Clause?**

9 **A.** Yes, I have.

10

11 **Q.** **Have your duties and responsibilities remained the same since you last filed**
12 **testimony in this proceeding?**

13 **A.** Yes, they have.

14

15 **Q.** **What is the purpose of your testimony?**

16 **A.** The purpose of my testimony is to explain material variances between the
17 Estimated/Actual project expenditures versus the original cost projections for
18 environmental compliance costs associated with PEF's Substation and
19 Distribution System Environmental Investigation, Remediation, and Pollution
20 Prevention Programs for the period January 2005 through December 2005. My
21 testimony also describes a new environmental compliance program that falls
22 within my responsibility and for which Progress Energy is seeking cost recovery
23 in this docket.

1 **Q. Are you sponsoring any exhibits to your testimony?**

2 A. Yes. I am sponsoring the following exhibits:

- 3 • Exhibit No. __ (KDH-1) – a copy of Rule 62B-55.006, F.A.C.;
- 4 • Exhibit No. __ (KDH-2) – a copy of Lighting Ordinance for Marine Turtle
5 Protection of Franklin County Florida;
- 6 • Exhibit No. __ (KDH-3) – a copy of An Ordinance of Gulf County, Florida,
7 Creating Regulations for the Protection of Sea Turtles and other Enumerated
8 Species within Certain Beaches of Gulf County . . . , and
- 9 • Exhibit No. __ (KDH-4) – a copy of An Ordinance Regulating Lighting for
10 the Protection of Marine Turtles and Aquatic Sea Life for the Beaches of
11 Mexico Beach

12
13 **Q. Please explain the variance between the Estimated/Actual project
14 expenditures and the original projections for the Distribution System
15 Program for the period January 2005 to December 2005 (Project #2).**

16 A. Project expenditures for the Distribution System Program are estimated to be
17 \$460,825 higher than originally projected. This is due to the roll over of
18 remediation activities of 126 single-phase sites from the 2004 work plan into the
19 2005 work plan as a result of work delays.

20
21 **Q. Are there any new environmental programs that fall within your
22 responsibilities for which PEF is seeking recovery in this docket?**

1 A. Yes. PEF is seeking ECRC recovery of a new Sea Turtle Lighting Program,
2 which falls within the scope of my responsibilities.

3

4 **Q. Are you familiar with the requirements that environmental costs must meet**
5 **to be eligible for recovery through the ECRC?**

6 A. Yes. The general requirements are that all expenditures must have been
7 prudently incurred after April 13, 1993; all activities must be legally required to
8 comply with a governmentally imposed environmental requirement which was
9 created, or whose effect was triggered, after the company's last test year on
10 which rates are based; and none of the expenditures are being recovered through
11 some other cost recovery mechanism or through base rates.

12

13 **Q. Does the new Sea Turtle Lighting Program qualify for cost recovery under**
14 **these criteria?**

15 A. Yes. As discussed in more detail below, the Sea Turtle Lighting Program is
16 being implemented in response to new environmental requirements which were
17 created, or whose effect was triggered, after the minimum filing requirements
18 (MFRs) were submitted in the Company's last rate case, Docket No. 000824-EI
19 and were not included in the MFRs submitted in the current rate case before this
20 commission in Docket No. 050078-EI. None of the costs of this program are
21 being recovered through base rates or any other cost recovery mechanism. PEF
22 is seeking recovery of costs incurred after the date of the filing of this testimony.

23

1 **Q. Why is the Company implementing the Sea Turtle Lighting Program?**

2 A. PEF owns and leases high pressure sodium streetlights throughout its service
3 territory, including areas along the Florida coast. Pursuant to Section 161.163,
4 Florida Statutes, the Florida Department of Environmental Protection (FDEP),
5 in collaboration with the Florida Fish and Wildlife Conservation Commission
6 (FFWCC) and the U.S. Fish & Wildlife Service (USFWS), has developed a
7 model Sea Turtle lighting ordinance. See Rule 62B-55, F.A.C. (Copy provided
8 as Exhibit No. ___(KDH-1)). The model ordinance is used by the local
9 governments to develop and implement local ordinances within their
10 jurisdiction.

11

12 To date, Sea Turtle lighting ordinances have been adopted in Franklin County,
13 Gulf County and the City of Mexico Beach in Bay County, all of which are
14 within PEF's service territory. Copies of the Franklin County, Gulf County, and
15 Mexico Beach ordinances are provided as Exhibits No. ___ (KDH-2), No. ___
16 (KDH-3) and No. ___ (KDH-4). Since 2004, officials from the various local
17 governments, as well as FDEP, FFWC and USFWS, have advised PEF that
18 lighting it owns and leases is affecting turtle nesting areas that fall within the
19 scope of these ordinances, As a result, the local governments are requiring PEF
20 to take additional measures to satisfy new criteria being applied to ensure
21 compliance with the ordinances.

22

1 **Q. What compliance activities does PEF expect to undertake in connection**
2 **with the new Sea Turtle Lighting Program?**

3 A. PEF will be working with the local governments and regulatory agencies to
4 determine the most cost-effective compliance measures for each site. Potential
5 compliance measures include retrofitting or replacing existing streetlights and,
6 in certain cases, monitoring to determine the effectiveness of the new or
7 retrofitted lights.

8

9 **Q. Has the Company projected the costs that it will incur for the Sea Turtle**
10 **Lighting Program in 2005 after the date of filing of your testimony?**

11 A. Yes. PEF projects to incur capital costs of \$92,500 and O&M costs of \$80,000
12 in 2005. Capital cost estimates are based on the modification of 500 lighting
13 fixtures to add lens shielding and/or buffering at a cost of approximately \$185
14 per unit. PEF estimates O&M costs of \$80,000 for monitoring the effectiveness
15 of these retrofits. Actual costs may vary depending upon discussions with
16 regulatory agencies to determine the most cost-effective and appropriate
17 compliance measures for specific sites.

18

19 **Q. Does this conclude your testimony?**

20 A. Yes, it does.

CHAPTER 62B-55 MODEL LIGHTING ORDINANCE FOR MARINE TURTLE PROTECTION

62B-55.001	Purpose and Intent.
62B-55.002	Definitions.
62B-55.003	Marine Turtle Nesting Areas.
62B-55.004	General Guidance to Local Governments.
62B-55.005	Prohibition of Activities Disruptive to Marine Turtles.
62B-55.006	Model Standards for New Beachfront Lighting.
62B-55.007	Model Standards for Existing Beachfront Lighting.
62B-55.008	Proposed Enforcement and Penalties.
62B-55.009	Monitoring and Reporting Guidance.

62B-55.001 Purpose and Intent.

The purpose of this rule is to implement Section 161.163, Florida Statutes, which requires the department to designate coastal areas utilized, or likely to be utilized, by sea turtles for nesting, and to establish guidelines for local government regulations that control beachfront lighting to protect hatching sea turtles. This rule is intended to guide local governments in developing ordinances which will protect hatching marine turtles from the adverse effects of artificial lighting, provide overall improvement in nesting habitat degraded by light pollution, and increase successful nesting activity and production of hatchlings.

Specific Authority 161.163 FS. Law Implemented 161.163 FS. History--New 3-30-93, Formerly 16B-55.001.

62B-55.002 Definitions.

- (1) "Artificial light" or "artificial lighting" means the light emanating from any human-made device.
- (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 bulb means any yellow 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.
- (4) "Coastal construction activities" means any work or activity that is likely to have a material physical effect on existing coastal conditions or natural shore and inlet processes.
- (5) "County" means Bay, Brevard, Broward, Charlotte, Citrus, Collier, Dade, Dixie, Duval, Escambia, Flagler, Franklin, Gulf, Hernando, Indian River, Jefferson, Lee, Levy, Manatee, Martin, Monroe, Nassau, Okaloosa, Palm Beach, Pasco, Pinellas, St. Johns, St. Lucie, Santa Rosa, Sarasota, Suwanee, Taylor, Volusia, Wakulla, and Walton Counties.
- (6) "Cumulatively illuminated" means illuminated by numerous artificial light sources that as a group illuminate any portion of the beach.
- (7) "Department" means the Florida Department of Environmental Protection.
- (8) "Directly illuminated" means illuminated as a result of glowing element(s), lamp(s), globe(s), or reflector(s) of an artificial light source which is visible to an observer on the beach.
- (9) "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.
- (10) "Frontal dune" means the first natural or man-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.
- (11) "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.
- (12) "Hatchling" means any species of marine turtle, within or outside of a nest, that has recently hatched from an egg.
- (13) "Indirectly illuminated" means illuminated as a result of the glowing element(s), lamp(s), globe(s), or reflector(s) of an artificial light source which is not visible to an observer on the beach.
- (14) "Local government" means any county listed in (4) above and any municipality, community development district, or special taxing district within those counties.
- (15) "Marine 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 kemp* (Kemp's ridley). For purposes of this rule, marine turtle is synonymous with sea turtle.
- (16) "Nest" means an area where marine turtle eggs have been naturally deposited or subsequently relocated.
- (17) "Nesting season" means the period 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 Brevard, Indian River, St. Lucie, Martin, Palm Beach, and Broward counties means the period from March 1 through October 31 of each year.
- (18) "Nighttime" means the locally effective time period between sunset and sunrise.

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

(20) "Tinted glass" means any 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.

Specific Authority 161.163 FS. Law Implemented 161.163 FS. History--New 3-30-93, Formerly 16B-55.002.

62B-55.003 Marine Turtle Nesting Areas.

Scientific investigations have demonstrated that marine turtles can nest along the entire coastline of the state. Historical data are not sufficient to exclude any county as an area utilized by marine turtles for nesting. For the purposes of this rule, however, the coastal areas of the state utilized, or likely to be utilized, by marine turtles for nesting include all beaches adjoining the waters of the Atlantic Ocean, the Gulf of Mexico, and the Straits of Florida and located within Bay, Brevard, Broward, Charlotte, Collier, Dade, Duval, Escambia, Flagler, Franklin, Gulf, Indian River, Lee, Manatee, Martin, Monroe, Nassau, Okaloosa, Palm Beach, Pinellas, St. Johns, St. Lucie, Santa Rosa, Sarasota, Volusia, and Walton Counties; and all inlet shorelines of those beaches.

Specific Authority 161.63 FS. Law Implemented 161.163 FS. History--New 3-30-93, Formerly 16B-55.003.

62B-55.004 General Guidance to Local Governments.

(1) The responsibility for protecting nesting female and hatchling marine turtles should be a joint responsibility of local government and the department. Local governments are encouraged to adopt, implement, and enforce the guidelines provided herein to assist in that responsibility. Local governments that have adopted less stringent regulations should consider amending existing ordinances to provide greater protection to nesting marine turtles and hatchlings. In the process of implementing these guidelines, the following management goals should also be considered by local governments:

(a) Public Awareness. Any person submitting an application for coastal construction activities within the jurisdictional boundaries of the local government should be informed of the existence of and requirements within the local government's ordinances concerning artificial lighting and marine turtle protection.

(b) Local Government – Department Communication. Upon adoption of these guidelines, a system of communication between the local government and the department should be developed if it does not already exist. Protection of marine turtle nesting habitat, nesting females, and hatchlings is greatly enhanced when local governments manage their beaches and coastal activities in a manner consistent with prudent marine turtle conservation strategies. The department is ready to assist local governments by providing such conservation information and other technical assistance.

(c) Inter-Governmental Cooperation. Upon adoption of these guidelines, local governments should develop a system for receiving copies of permits issued by the department, the Department of Environmental Protection, or the United States Army Corps of Engineers for any coastal construction within the local government's jurisdiction. Activities permitted by these agencies should be assessed for compliance with the local government's lighting ordinance.

(d) Enforcement. Local governments should develop a process for the consistent and effective enforcement of adopted guidelines. This process should include at least one compliance inspection of the beach conducted at night prior to the commencement of the main portion of the marine turtle nesting season and one compliance inspection conducted during the marine turtle nesting season.

(2) The department considers the provisions of this chapter to be minimum guidelines for the protection of nesting habitat, nesting females, and hatchling marine turtles from the negative effects of artificial lighting. More stringent standards for marine turtle protection may be adopted by local governments. Prior to adoption of any additional standards, local governments are encouraged to consult with the department to ensure that the proposed standards are consistent with the guidelines set forth herein and with all other applicable department rules.

Specific Authority 161.63 FS. Law Implemented 161.163 FS. History--New 3-30-93, Formerly 16B-55.004.

62B-55.005 Prohibition of Activities Disruptive to Marine Turtles.

The following activities involving direct illumination of portions of the beach should be prohibited on the beach at nighttime during the nesting season for the protection of nesting females, nests, and hatchling marine turtles:

(1) The operation of all motorized vehicles, except emergency and law enforcement vehicles or those permitted on the beach for marine turtle conservation or research.

(2) The building of campfires or bonfires.

Specific Authority 161.63 FS. Law Implemented 161.163 FS. History--New 3-30-93, Formerly 16B-55.005.

62B-55.006 Model Standards for New Beachfront Lighting.

In order to provide the highest level of protection for nesting marine turtles and their hatchlings, local governments should adopt all of the following standards for artificial light sources on all new coastal construction:

(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 are considered appropriately designed if:
 - (a) Completely shielded downlight only fixtures or recessed fixtures having low wattage (i.e., 50 watts or less) "bug" type bulbs and non-reflective interior surfaces are used. Other fixtures that have appropriate shields, louvers, or cut-off 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 use of low-mounted wall fixtures, low bollards, and ground-level fixtures.
 - (3) Floodlights, uplights or spotlights for decorative and accent purposes that are directly visible from the beach, or which indirectly or cumulatively illuminate the beach, shall not be used.
 - (4) Exterior lights used expressly for safety or security purposes 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 preferred.
 - (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 areas and roadways, including any paved or unpaved areas upon which motorized vehicles will park or operate, shall be designed and located to prevent vehicular headlights from directly or indirectly illuminating the beach.
 - (7) Vehicular lighting, 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 marine turtle nesting or hatchling emergence, or cause short- or long- term damage to the beach/dune system.
 - (8) Tinted glass shall be installed on all windows and glass doors of single or multi-story structures within line-of-sight of the beach.
 - (9) Use of appropriately shielded low pressure sodium vapor lamps and fixtures shall be preferred for high-intensity lighting applications such as lighting parking areas and roadways, providing security, and similar applications.
 - (10) Temporary lighting of construction sites during the marine turtle nesting season shall be restricted to the minimal amount necessary and shall incorporate all of the standards of this section.

Specific Authority 161.63 FS. Law Implemented 161.163 FS. History--New 3-30-93, Formerly 16B-55.006.

62B-55.007 Model Standards For Existing Beachfront Lighting.

In order to provide the highest level of protection for nesting marine turtles and their hatchlings, local governments should adopt all of the following standards for existing artificial beachfront lighting sources:

- (1) Existing artificial light fixtures shall be repositioned, modified, 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) 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 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 yellow "bug" type bulbs 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 luminaries 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 vapor 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) 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 which cannot be brought into compliance with the provisions of these standards.
- (3) The following measures shall be taken 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 for tinted glass;
- (b) Rearrange lamps and other moveable fixtures away from windows;
- (c) Use window treatments (e.g., blinds, curtains) to shield interior lights from the beach; and
- (d) Turn off unnecessary lights.

Specific Authority 161.63 FS. Law Implemented 161.163 FS. History—New 3-30-93, Formerly 16B-55.007.

62B-55.008 Proposed Enforcement and Penalties.

Enforcement, appeal, and remedy of matters related to this chapter should be regulated pursuant to procedures established under local ordinances. Penalties for non-compliance should be established and should be sufficient to discourage violations. Enforcement capability should be adequate to respond to possible violations within the timeframe necessary to prevent continued and prolonged impacts to marine turtles and hatchlings.

Specific Authority 161.63 FS. Law Implemented 161.163 FS. History—New 3-30-93, Formerly 16B-55.008.

62B-55.009 Monitoring and Reporting Guidance.

The following information should be compiled on an annual basis and submitted to the department.

- (1) Number of lighting applications reviewed;
- (2) Number of potential violations reported;
- (3) Number of potential violations investigated;
- (4) Disposition of all potential violations including results of enforcement actions and amounts of penalties assessed;
- (5) Results of compliance checks conducted prior to and during the marine turtle nesting season; and
- (6) Status of local lighting ordinances and any amendments to those ordinances.

Specific Authority 161.63 FS. Law Implemented 161.163 FS. History—New 3-30-93, Formerly 16B-55.009.

ORDINANCE NO. 98-11

Lighting Ordinance for Marine Turtle Protection of Franklin County, Florida

I. PURPOSE AND INTENT

This ordinance is intended to protect hatchling marine turtles from the adverse effects of artificial lighting, provide overall improvement in nesting habitat degraded by light pollution, and increase successful nesting activity and production of hatchlings on the beaches of Franklin County, Florida.

II. DEFINITIONS.

- (1) "Artificial light" or "artificial lighting" means the light emanating from any human-made device.
- (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 bulb means any yellow 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.
- (4) "Coastal construction activities" means any work or development on any of the barrier islands or Alligator Point in Franklin County, Florida.
- (5) Coastal Construction Control Line (CCCL) means the portion of the Coastal construction line established pursuant to the provisions of section 161.053 Florida Statutes that lies within Franklin County.
- (6) "Cumulatively illuminated" means illuminated by numerous artificial light sources that as a group illuminate any portion of the beach.
- (7) "Directly illuminated" means illuminated as a result of glowing elements(s), lamp(s), globe(s), or reflector(s) of an artificial light source which is visible to an observer on the beach.
- (8) "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.

(9) "Frontal dune" means the first natural or man-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.

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

(11) "Indirectly illuminated" means illuminated as a result of the glowing element(s), lamp(s), globe(s), or reflector(s) of an artificial light source which is not visible to an observer on the beach.

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

(13) "Marine 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 kemp* (Kemp's ridley). For purposes of this rule, marine turtle is synonymous with sea turtle.

(14) "Nest" means an area where marine turtle eggs have been naturally deposited or subsequently relocated.

(15) "Nesting season" means the period from May 1 through October 31.

(16) "Nighttime" means the period between sunset and sunrise.

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

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

(19) 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.

(20) "Tinted glass" means any 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.

III. STANDARDS FOR NEW CONSTRUCTION ACTIVITIES.

In order to provide the highest level of protection for nesting marine turtles and their hatchlings, the following standards for artificial light sources on all new coastal construction seaward of the Coastal Construction Control Line (CCCL) 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 low wattage (i.e., 25 watts or less) "bug" type bulbs 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 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) No lighting shall be allowed on dune walkovers.

(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) Tinted glass shall be installed on all windows and glass doors of single or multi-story structures within line-of-sight of the beach.

(7) Use of appropriately shielded low-pressure sodium-vapor lamps and fixtures shall be required for high-intensity lighting applications such as lighting parking areas and roadways, providing security, and similar applications.

(8) Temporary lighting of construction sites during the marine turtle nesting season shall be restricted to the minimal amount necessary and shall incorporate all of the standards of this section.

(9) Before granting any building permit, the Franklin County Planning and Building Department shall determine that all proposed development complies in all respects with the standards imposed in this section.

(10) Permits will not be required to install utility leased lighting, but all such lighting shall comply in all respects with the standards imposed in this

ordinance, with the exception that appropriately shielded high-pressure sodium lights may be installed for utility leased lighting until 2002 or until the utility provider offers low-pressure sodium lighting, whichever event occurs earlier.

(11) For any coastal construction completed after the effective date of this ordinance, the lighting shall not be changed without first obtaining a permit from the County. Such permits shall only be issued when the proposed lighting plan complies with this ordinance.

IV. STANDARDS FOR EXISTING LIGHTING.

In order to provide the highest level of protection for nesting marine turtles and their hatchlings, the county hereby adopts all of the following standards for existing artificial lighting sources, including utility leased lighting, seaward of the CCCL:

(1) Existing artificial light fixtures shall be repositioned or modified 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) The following measures may be taken to comply with this section:

(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 yellow "bug" type bulbs not exceeding 25 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 luminaries 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-vapor lighting possible for the specific application;

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

(i) Disconnect utility leased lighting during the marine turtle nesting season.

(3) The following measures shall be taken as applicable 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 for tinted glass;

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

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

(d) Turn off unnecessary lights.

V. PUBLIC AWARENESS.

Any person submitting an application for coastal construction activities within the jurisdictional boundaries of Franklin County shall be informed of the existence of and the requirements concerning artificial lighting and marine turtle protection by the Franklin County Planning and Building Department.

VI. ENFORCEMENT AND PENALTIES

Upon notification by law enforcement authorities, the Franklin County Planning and Building Department shall give notice to any person who violates this ordinance by a certified letter to the property address listed by the Franklin County Tax Collector's Office. The letter shall describe the violation and shall enclose a brochure provided by Department of Environmental Protection and a copy of the ordinance. Such persons shall immediately correct any noticed violation. Failure to correct any noticed violation shall be punishable in the same manner as a misdemeanor and punishable as provided by Section 125.69, Florida Statutes (1995). Each day of any such violation shall constitute a separate and distinct offense. The Department of Environmental Protection and the Florida Marine Patrol shall have authority to enforce the ordinance.

VII. INTERPRETATION

The provisions of this Ordinance shall be liberally 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.

VIII. SEVERABILITY

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



IX. EFFECTIVE DATE

This ordinance shall take effect immediately upon its adoption.

Duly adopted by the Board of County Commissioners of Franklin County, Florida, this 15th day of June, 1998.

BOARD OF COUNTY COMMISSIONERS

By: 
RAYMOND WILLIAMS
CHAIRMAN


By: 
Kendall Wade
CLERK

ORDINANCE NO. 2001-09

Docket No. 050007-EI
Progress Energy Florida
Witness: Kent D. Hedrick
Exhibit No. ___ (KDH-3)
Gulf County Ordinance

AN ORDINANCE OF GULF COUNTY, FLORIDA, CREATING REGULATIONS FOR THE PROTECTION OF SEA TURTLES AND OTHER ENUMERATED SPECIES WITHIN CERTAIN BEACHES OF GULF COUNTY, PROVIDING FOR THE PURPOSE AND INTENT OF SUCH ORDINANCE, PROVIDING FOR DEFINITIONS, PROHIBITED ACTIVITIES, LIGHTING STANDARDS FOR NEW CONSTRUCTION, LIGHTING STANDARDS FOR EXISTING LIGHTING, PROVIDING FOR PUBLIC AWARENESS, PROVIDING FOR ENFORCEMENT AND PENALTIES, PROVIDING AN INTERPRETATION, PROVIDING A SEVERABILITY CLAUSE AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, it has been determined that artificial lighting upon certain beaches of Gulf County adversely effects the nesting habits of the endangered and threatened marine turtle population and other enumerated species of Gulf County, and

WHEREAS, it is the policy of the Board of County Commissioners of Gulf County, Florida, that no enumerated artificial light source improperly illuminate the beaches of unincorporated Gulf County,

NOW, THEREFORE, be it ordained by the Board of County Commissioners of Gulf County, Florida, as follows:

I PURPOSE AND INTENT

This Ordinance is intended to protect state and federally listed species from the adverse effects of artificial lighting and from injury or harassment caused by such lighting and its effects. These species include all animals categorized by the United States Fish and Wildlife Service (50 CFR 17) or the Florida Fish & Wildlife Conservation Commission or the Marine Turtle Protection Act (Florida Statute 370.12, Florida Administrative Code, Rules 62-01, 62-B33, 62-B55) as either endangered, threatened, or species of special concern which utilize the beach habitat of Gulf County, Florida, specifically nesting female and hatchling marine turtles, beach mice, and shorebirds.

II DEFINITIONS

- (1) "Artificial light" or "artificial lighting" means the light emanating from any device other than natural celestial light sources.
- (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 bulb means any yellow 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.

- (4) "Coastal construction activities" means any work or development that is likely to have a material physical effect on existing coastal conditions or natural shore and inlet processes.
- (5) "Coastal Construction Control Line (CCCL)" means the portion of the Coastal Construction Control Line established pursuant to the provisions of Section 161.053 Florida Statutes that lies within Gulf County.
- (6) "Cumulatively illuminated" means illuminated by numerous artificial light sources that as a group illuminate any portion of the beach.
- (7) "Department" means the Florida Department of Environmental Protection.
- (8) "Directly illuminated" means the source of artificial light, i.e. lamps or reflectors, is visible to an observer located beyond the frontal dune.
- (9) "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.
- (10) "Frontal dune" means the first natural or man-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.
- (11) "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.
- (12) "Gulf County Beaches" includes all beaches within Gulf County located seaward of SR30A and County Road C30B and C30E commencing at the Indian Pass public boat ramp and extending to the southern boundary of the St. Joseph Peninsula State Park and also including those boundaries lying south of Highway 98 commencing at the western boundary of the Gulf County Canal and extending to the Gulf/Bay County boundary line.
- (13) "Hatchling" means any species of marine turtle, within or outside of a nest, that has recently hatched from an egg.
- (14) "Indirectly illuminated" is the term used when the source element of an artificial light source is not visible by an observer located beyond the frontal dune, but the lumen output is.
- (15) "Listed species" includes all animals categorized by the United States Fish and Wildlife Service (50 CFR 17) or the Florida Fish & Wildlife Conservation Commission or the Marine Turtle Protection Act (Florida Statute 370-12, Florida Administrative Code, Rules 62-01, 62-B33, 62-B55) as either endangered, threatened, or species of special concern.

- (16) "Low pressure sodium luminaries (LPS)" means an electric discharge lamp containing sodium, neon, and argon, that when illuminated appears orange in color, and under which colors are indiscernible.
- (17) "Marine 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), *Fretmochelys imbricata* (hawksbill), and *Lepidochelys kemp* (Kemp's ridley). For purposes of this rule, marine turtle is synonymous with sea turtle.
- (18) "Nest" means an area where marine turtle eggs have been naturally deposited or subsequently relocated.
- (19) "Nesting season" means the period from May 1 through October 31 of each year, as defined by F.A.C. 62B 55.002(17) for all counties.
- (20) "Nighttime" means the locally effective time period between sunset and sunrise.
- (21) "Person" means individuals, firms, associations, joint ventures, partnerships, estates, trusts, syndicates, fiduciaries, corporations, and all other groups or combinations.
- (22) "Pole lighting" means a light fixture set on a base or pole which raises the source of the light higher than twenty four inches (24") off the ground.
- (23) "Shield" means a covering, canopy, or other such device fitted over and extended below an artificial light source.
- (24) "Tinted glass" means any 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.

III PROHIBITION OF ACTIVITIES DISRUPTIVE TO MARINE TURTLES AND OTHER LISTED SPECIES

The following activities involving direct illumination of the beach shall be prohibited at nighttime on Gulf County Beaches, as defined in Sec. II.12 above, from May 1 through October 31 of each year for the protection of listed species, specifically marine turtle nesting females, hatchlings, and nests:

- (1) The use of artificial lighting, including flashlights, to directly observe marine turtle nesting and hatching activities.
- (2) Any transient lighting which purposely or flagrantly illuminates nesting sea

turtles or hatchlings such that it disrupts their behavior patterns.

IV STANDARDS FOR UTILITY LEASED LIGHTING

A. New Construction

Utility lighting will be constructed within the following guidelines:

- (1) Distances Greater Than 300 ft. From The Mean High Water Mark: Cut-off HPS Luminaries, 150 watts or less; mounting height of 25 ft or less. Where direct light source is visible by observer from beyond the frontal dune, a shield will also be installed.
- (2) Distances Up to 300 ft From the Mean High Water Mark: Cut-off HPS Luminaries, 150 watts or less with amber filtered lens, mounting height of 25 ft or less. Where direct light source is visible by observer from beyond the frontal dune, a shield will also be installed.

B. Existing Lighting

Upon failure of existing fixtures, the utility will install replacement fixtures utilizing the following guidelines:

- (1) Distances Greater Than 300 ft From The Mean High Tide Mark: Cut-off HPS Luminaries, 150 watts or less, mounting height of 25 ft or less. Where direct light source is visible by observer from beyond the frontal dune a shield will also be installed.
- (2) Distance 100 ft -300 ft From The Mean High Tide Mark: Cut-off HPS Luminaries, 150 watts or less with amber filtered lens; mounting height of 25 ft or less. Where direct light source is visible by observer from beyond the frontal dune a shield will also be installed.

Upon an agreement between the FDEP, Fish & Wildlife, local county government and the utility, that an existing fixture is posing a significant threat, replacement will occur prior to failure.

V STANDARDS FOR NEW CONSTRUCTION ACTIVITIES (EXCLUDING UTILITY LEASED LIGHTING)

In order to provide the highest level of protection for nesting marine turtles, hatchlings, and other listed species, the following standards for artificial light sources on all new coastal construction within the Beaches of Gulf County as defined in Section II.12, above:

- (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 down light only fixtures or recessed fixtures having low wattage type bulbs 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: 25 watts or less bug lights and
 - (b) All fixtures are mounted as low in elevation as possible through use of low-mounted wall fixtures, low bollards, and ground-level fixtures.
- (3) Floodlights, up lights or spotlights for decorative and accent purposes that are directly visible from the beach, or which indirectly or cumulatively illuminate the beach, shall not be used.
- (4) Exterior lights used expressly for safety or security purposes must comply with subsections 2(a) and (b) 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 45 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 marine turtle nesting or hatching emergence, or cause short or long term damage to the beach/dune system.
- (7) Tinted 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-vapor lamps and fixtures

shall be required for high-intensity lighting applications such as lighting parking areas and roadways, providing security, and similar applications.

- (9) Lights on dune walkovers are prohibited seaward of the CCCL. Lights on the walkovers landward of the CCCL shall utilize low profile shielded luminaries directed and positioned so that the point source of light or any reflective surface of the light fixture is not directly visible to a person on the beach.
- (10) Temporary lighting of construction sites during the marine turtle nesting season shall be required to abide by the standards of this section.

VI STANDARDS FOR EXISTING LIGHTING (EXCLUDING UTILITY LEASED LIGHTING)

In order to provide the highest level of protection for nesting marine turtles, hatchlings, and other listed species, the following standards for all existing artificial light sources, with the Gulf County Beaches as defined within Section II.12 above shall be brought into compliance by April 1, 2002.

- (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 IV, Standards for New Construction Activities and the following measures 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 non-directional fixtures with directional fixtures that point down and away from the beach;
 - (d) Replace pole lamps with low-profile, low-level luminaries so that the light source or any reflective surface of the light fixture is not visible from the beach;

- (e) Replace incandescent, fluorescent, and high intensity lighting with the lowest wattage low-pressure sodium-vapor lighting possible for the specific application;
 - (f) Plant or improve vegetation buffers between the light source and the beach to screen light from the beach;
- (3) The following measures shall be taken as applicable 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 for tinted glass;
 - (b) Rearrange lamps and other moveable fixtures away from windows;
 - (c) Use window treatments (e.g., blinds, curtains) to shield interior lights from the beach, and
 - (d) Turn off unnecessary lights.
- (4) Any and all lighting which fails to meet the requirements of Section VI as to standard for existing lighting shall be subject to termination of lighting pending full compliance.

VII PUBLIC AWARENESS

Any person submitting an application for coastal construction activities within the jurisdictional boundaries of Gulf County shall be informed of the existence of and the requirements concerning artificial lighting and marine turtle protection by the Gulf County Planning and Building Department.

VIII ENFORCEMENT AND PENALTIES

Upon notification, the Gulf County Code Enforcement Officer shall give notice to any person who violates this Ordinance by a certified letter/return receipt requested to the property owner's address listed at the Gulf County Tax Collector's Office for the location of the offending light. Such notice shall be provided within twenty-four (24) hours of the report of the disorientation event, or within forty-eight (48) hours of the report of the disorientation event if reported on the weekend. Additionally, in the event that the Code Enforcement Officer ascertains that the offending property is under the care of a rental (realty) agency or property manager, then and in that event, the Code Enforcement Officer shall provide to such rental agency a Notice of Violation letter within forty-eight (48) hours of the disorientation event. Further, in the event that the Code Enforcement Officer ascertains that the offending property is occupied, then and in that event, a copy of the Notice of Violation shall be provided to an occupant at the location of the offending light within twenty-four (24) hours of the report of the disorientation event, or within forty-eight (48) hours of the report of the disorientation event if reported on the weekend. Such letters shall describe the violation and shall enclose a brochure provided by the Department of Environmental Protection and a copy of this

Ordinance. Failure to correct any noticed violation within seven (7) days of the date of notice of such violation shall be punishable in the same manner as a misdemeanor punishable as provided by Section 125.69, Florida Statutes (2001). Each day of any such violation shall constitute a separate and distinct offense. The Florida Department of Environmental Protection, Gulf County Sheriff's Department, Florida Fish & Wildlife Conservation Commission, and Gulf County Code Enforcement officers shall have authority to enforce the Ordinance. Any person may exercise their right to report any and all violations of this Ordinance to the proper enforcement authorities. In addition to any other remedy herein set forth or otherwise provided by law, the County may restrain any violation of this Ordinance by suit in a court or administrative body of competent jurisdiction.

IX INTERPRETATION

The provisions of this Ordinance shall be liberally 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 re-designation thereof.

X SEVERABILITY

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

XI EFFECTIVE DATE

This Ordinance shall take effect immediately upon its adoption.

Duly adopted by the Board of County Commissioners of Gulf County, Florida, this 11th day of September, 2001.

BOARD OF COUNTY COMMISSIONERS
GULF COUNTY, FLORIDA

By: Nathan Peters, Jr.
Nathan Peters, Jr. Chairman

ATTEST

By: Douglas Birmingham
Douglas Birmingham, Clerk

CERTIFIED TRUE COPY
DOUGLAS G. BIRMINGHAM
CLERK OF COUNTY COURT
GULF COUNTY, FLORIDA
BY: Adams D.C.
DATE: 9/24/01

ORDINANCE 388

**AN ORDINANCE REGULATING LIGHTING FOR THE PROTECTION OF
MARINE TURTLES AND AQUATIC SEA LIFE FOR THE BEACHES OF
MEXICO BEACH, ENFORCEMENT PROCEDURES AND PENALTIES
THEREOF.**

I. PURPOSE AND INTENT

This ordinance is intended to protect hatchling marine turtles from the adverse effects of artificial lighting, provide overall improvement in nesting habitat degraded by light pollution, and increase successful nesting activity and production of hatchlings on the beaches of Mexico Beach, Florida.

II. DEFINITIONS.

- (1) "Artificial light" or "artificial lighting" means the light emanating from any human-made device.
- (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 bulb means any yellow 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.
- (4) "Coastal construction activities" means any work or development in the CCCL in Mexico Beach, Florida.
- (5) Coastal Construction Control Line (CCCL) means the portion of the coastal construction line established pursuant to the provisions of section 161.053 Florida Statutes that lies within Mexico Beach.
- (6) "Cumulatively illuminated" means illuminated by numerous artificial light sources that as a group illuminate any portion of the beach.
- (7) "Directly illuminated" means illuminated as a result of glowing element(s), lamp(s), globe(s), or reflector(s) of an artificial light source which is visible to an observer on the beach.
- (8) "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.
- (9) "Frontal dune" means the first natural or man-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.
- (10) "Hatchling" means any species of marine turtle, within or outside of a nest, that has recently hatched from an egg.
- (11) "Indirectly illuminated" means illuminated as a result of the glowing element(s), lamp(s), globe(s), or reflector(s) of an artificial light source which is not visible to an observer on the beach.

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

(13) "Marine 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, marine turtle is synonymous with sea turtle.

(14) "Nest" means an area where marine turtle eggs have been naturally deposited or subsequently relocated.

(15) "Nesting season" means the period from May 1 through October 31.

(16) "Nighttime" means the period between sunset and sunrise.

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

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

(19) 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.

(20) "Tinted glass" means any 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.

III. STANDARDS FOR NEW CONSTRUCTION ACTIVITIES.

In order to provide the highest level of protection for nesting marine turtles and their hatchlings, the following standards for artificial light sources on all new coastal construction seaward of the Coastal Construction Control Line (CCCL) 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 low wattage (i.e., 25 watts or less) "bug" type bulbs 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 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) No lighting shall be allowed on dune walkovers.

(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) Tinted glass shall be installed on all windows and glass doors of single or multi-story structures within line-of-sight of the beach.

(7) Use of appropriately shielded low-pressure sodium-vapor lamps and fixtures shall be required for high-intensity lighting applications such as lighting parking areas and roadways, providing security, and similar applications.

(8) Temporary lighting of construction sites during the marine turtle nesting season shall be restricted to the minimal amount necessary and shall incorporate all of the standards of this section.

(9) Before granting any building permit, the Mexico Beach Planning and Building Department shall determine that all proposed development complies in all respects with the standards imposed in this section.

(10) Permits will not be required to install utility leased lighting, but all such lighting shall comply in all respects with the standards imposed in this ordinance.

(11) For any coastal construction completed after the effective date of this ordinance, the lighting shall not be changed without first obtaining a permit from the County. Such permits shall only be issued when the proposed lighting plan complies with this ordinance.

IV. STANDARDS FOR EXISTING LIGHTING.

In order to provide the highest level of protection for nesting marine turtles and their hatchlings, the county hereby adopts all of the following standards for existing artificial lighting sources, including utility leased lighting, seaward of the CCCL

(1) Existing artificial light fixtures shall be repositioned or modified 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) The following measures may be taken to comply with this section:

(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 yellow "bug" type bulbs not exceeding 25 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 luminaries 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-vapor lighting possible for the specific application;

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

(i) Disconnect utility leased lighting during the marine turtle nesting season.

(3) The following measures shall be taken as applicable 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 for tinted glass;

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

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

(d) Turn off unnecessary lights.

V. PUBLIC AWARENESS.

Any person submitting an application for coastal construction activities within the jurisdictional boundaries of Mexico Beach shall be informed of the

existence of and the requirements concerning artificial lighting and marine turtle protection by the Mexico Beach Planning and Building Department.

VI. ENFORCEMENT AND PENALTIES

Upon notification by law enforcement authorities, the Mexico Beach Planning and Building Department shall give notice to any person who violates this ordinance by a certified letter to the property address listed by the Bay County Tax Collectors Office. The letter shall describe the violation and shall enclose a brochure provided by Department of Environmental Protection and a copy of the ordinance. Such persons shall immediately correct any noticed violation. Failure to correct any noticed violation shall be punishable in the same manner as a misdemeanor and punishable as provided by Section 125.69, Florida Statutes (1995). Each day of any such violation shall constitute a separate and distinct offense. The Department of Environmental Protection and the Florida Marine Patrol shall have authority to enforce the ordinance.

VII. INTERPRETATION

The provisions of this Ordinance shall be liberally 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.

VIII. SEVERABILITY

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

IX. EFFECTIVE DATE

This ordinance shall take effect on April 2, 2002.

INTRODUCED at a Regular meeting of the City Council on September 11, 2001 and ADOPTED at a Regular meeting of the City Council on October 9, 2001

City Of Mexico Beach, Florida

BY: Cecil J. Jones
Kathy Kingeland Mayor Councilperson
Cecil Jones Mayor Pro Tem

Attest:

By: [Signature]

Approved as to form & legality

[Signature]
CITY ATTORNEY