

NOTE: The proposed changes to the Lighting Ordinance are in red. Red cross outs are items to be eliminated, and red underlined items are additions. The marginal notes are the DNR's comments on the proposed changes.

1 ARTICLE IV. - BEACH LIGHTING

2 Sec. 10-78. - Definitions.

3 The following words, terms and phrases, when used in this article, shall have the meanings ascribed
4 to them in this section, except where the context clearly indicates a different meaning:

5 Artificial light or artificial lighting means the light emanating from any ~~manmade~~manufactured device.

6 Beach means the zone of unconsolidated material that extends landward from the ordinary low-water
7 mark to the first occurrence of line of permanent vegetation.

8 Cumulatively illuminated means illuminated by ~~numerous more than one~~ artificial light sources that
9 ~~collectively as a group~~ illuminate any portion of the beach.

10 Directly illuminated means an area illuminated as a result of glowing elements, lamps, globes or
11 reflectors of an artificial light source, which is visible to an observer on the beach.

12 Dune means mounds of sand deposited along a coastline by wind action, which mounds are often
13 covered with sparse, pioneer vegetation and are located landward of the ordinary high-water mark and
14 may extend to the tree line.

15 Frontal dune means the first natural or manmade mound or bluff of sand which is located landward
16 of the beach and which has sufficient vegetation, height, continuity, and configuration to offer protective
17 value.

18 ~~Ground-level barrier means any vegetation, natural feature or artificial structure rising from the~~
19 ~~ground, which prevents beachfront lighting from shining directly onto illuminating the beach dune system.~~

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

22 Indirectly illuminated means an area illuminated as a result of the glowing elements, lamps, globes or
23 reflectors of an artificial light source, which is not visible to an observer on the beach.

24 Indirectly illuminated means an area illuminated as a result of the glowing elements, lamps, globes or
25 reflectors of an artificial light source, which is not visible to an observer on the beach.

26 Nest means an area where sea turtle eggs have been naturally deposited or subsequently relocated.

27 Nesting beach means any beach location within five hundred (500) feet of any nest documented by
28 the Authority within the previous ten (10) years of nesting season. Nesting beach means any island beach
29 capable of supporting sea turtle nesting habitat defined as dry sand beach above the ordinary high-water
30 mark.

31 Nesting season means the period from May 1 through October 31 of each year; provided however,
32 the Authority may shorten the nesting season as set forth in Section 10-85.

33 Nighttime means the locally effective time period between sunset and sunrise ~~including official dawn~~
34 ~~and official twilight (the periods 30 minutes before sunrise and 30 minutes after sunset).~~

35 Nonnesting beach ~~means any island beach means any beach location greater than five hundred~~
36 ~~(500) feet from any nest documented by the Authority within the previous ten (10) years of nesting~~
37 ~~season with a visible stabilization structure (e.g., rock armoring, sea wall, sand bags) and no dry sand~~
38 ~~beach above the ordinary high-water mark.~~

39 Private balcony means a balcony or porch that is not considered a point of ingress and egress in
40 local building code.

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

Comment [AJ1]: Line 7: The definition of "Beach" should remain as previously written. The beach definition is important because it defines the specific habitat covered by the ordinance. The proposed change to "first occurrence of vegetation" is too restrictive because it doesn't include all habitat used by nesting turtles. Some sea turtle nesting habitat occurs landward of "the first occurrence of vegetation", including landward of vegetated embryonic dunes and landward of vegetation on the apex of the primary dune.

Comment [AJ2]: Lines 18-19: This definition should not be removed. The use of ground-level barriers is discussed in the ordinance.

Comment [AJ3]: Lines 27-30: The intended purpose of this change is unclear. The 500-foot number seems arbitrary. One problem with the proposed definition is that it will always lag a year behind any new nesting area that accretes or is created through nourishment. For instance, if the beach in front of a rock wall is nourished, it will not be subject to the ordinance until the following year after turtles nest for a season. The original definition was simple and worked well.

Comment [AJ4]: Lines 31-32: We agree with the concept of taking an adaptive approach to shorten the season if all nests are out of the ground. However, that determination should be made by GADNR. If the JIA calls an end to the season and an undetected nest emerges with misoriented hatchlings, the Authority could be liable under the Endangered Species Act. Suggested alternative wording: "Nesting season means the period from May 1 until the last remaining nest has been inventoried per Georgia Department of Natural Resources nesting protocols."

Comment [AJ5]: Lines 35-38: Again, the intended purpose of this change is not clear and the 500-foot criterion seems arbitrary. The main point is that the ordinance does not apply in areas that do not have nesting habitat (rock armoring) unless you can see the light from the adjacent nesting beach. The original ordinance clearly defines nesting and nonnesting habitat and the line of sight condition.

46 Tinted glass means any glass treated to achieve an industry-~~specified~~approved, inside-to-outside
47 light transmittance value of 45 percent or less. Such transmittance ~~is~~is limited to the visible spectrum (400
48 to 700 nanometers) and is measured as the percentage of light that is transmitted through the glass.

49 (Code 1981, § 15-101; Ord. of 4-29-1991; Ord. of 8-11-2008, § 5-114(II))

50
51
52 Sec. 10-79. - Purpose and intent.

53 This article is intended to protect sea turtles on nesting beaches ~~from by averting the~~ adverse effects
54 of artificial lighting during ~~the~~ nesting season. ~~in nighttime, provide overall improvement in nesting habitat~~
55 ~~degraded by light pollution, increase successful nesting activities of sea turtles, and increase the~~
56 ~~production and survivability of hatchlings. Furthermore, this article is intended to avoid degradation in~~
57 ~~sea turtle nesting habitat due to light pollution and promote successful nesting activity and production of~~
58 ~~hatchlings.~~

59 Sec. 10-80. - Prohibition of beachfront artificial lighting.

60 (a) ~~Artificial light shall not directly, indirectly, or cumulatively illuminate the nesting beaches of Jekyll~~
61 ~~Island, including frontal dunes, during nighttime throughout the sea turtle nesting season. To protect~~
62 ~~sea turtles from the adverse effects of artificial lighting, provide overall improvement in sea turtle~~
63 ~~nesting habitat degraded by light pollution, and increase successful nesting activity and production of~~
64 ~~hatchlings, artificial illumination, whether directly illuminated or indirectly illuminated or cumulatively~~
65 ~~illuminated, of the nesting beaches or nonnesting beaches, including dunes and frontal dunes, is~~
66 ~~prohibited during nighttime during the sea turtle nesting season~~
67 ~~for the protection of nesting females, nests and hatchlings.~~

68 (b) This article is applicable to individuals and legal entities, and may be enforced in rem against
69 nonconforming property uses.

70 ~~The prohibition set forth herein is effective for all new construction or installations of artificial lighting upon~~
71 ~~approval of this article. Existing artificial lights or lighting must be brought into conformance as soon~~
72 ~~as practicable but in no event later than April 30, 2010. The authority may proceed immediately~~
73 ~~against any nonconforming use commencing May 1, 2010, by terminating electrical power to such~~
74 ~~nonconforming use and proceeding in rem against the person or entity holding the property interests~~
75 ~~for all costs and attorney fees.~~

76 (c) Artificial lighting may be used~~operated~~ on nesting and nonnesting beaches of the island during the
77 sea turtle nesting season at nighttime only under the conditions set forth in sections 10-81 and 10-
78 82.

79 (Code 1981, § 15-101; Ord. of 4-29-1991; Ord. of 8-11-2008, § 5-114(III))

80 Sec. 10-81. - Standards for permitted beachfront lighting on nesting beaches.

81 Beachfront artificial lighting is permitted on nesting beaches during the sea turtle nesting season at
82 nighttime only under the following conditions:

83 (1) All aArtificial light fixtures, whether exterior or interior, shall be designed and positioned so that:

84 a. ~~The point source of light or any reflective surface of the light fixture is not directly visible~~
85 ~~from the beach.~~

86 ab. Areas seaward of the highest point of the frontal dune are not directly or indirectly
87 illuminated; and

88 bc. Areas seaward of the highest point of the frontal dune are not cumulatively illuminated.

89

90

Comment [AJ6]: Lines 60-67: The full spectrum of sea turtle response to artificial light ranges from a single light to direct illumination of the beach. Because we know that a single light (visible bulb, filament, diode) can cause a behavioral response, we recommend adding "To the extent possible, all artificial lights will be fully shielded from view of the beach."

Comment [AJ7]: Lines 84-85: This should not be removed from the ordinance. We support continued emphasis on education of guests to encourage them to keep blinds closed at night during the nesting season. However, in our experience, the only way to control light from interior sources is through a provision in the lighting ordinance that they are shielded. This proposed change could result in a significant amount of light on the beach.

- (2) Exterior artificial light fixtures within direct line-of-sight of the beach shall be designed and oriented such that ~~the fixtures are:~~
- a. ~~The point source of light or any metallic reflective surface of the light fixture is not directly visible from the beach;~~
 - b. ~~Fixtures are completely shielded by an opaque material blocking direct view of bulbs or diodes from the beach;~~
 - b. ~~Full cutoff design;~~
 - c. ~~Oriented-Fixtures project light~~ in a downward direction only.
- (3) Exterior artificial light fixtures which are prohibited from producing light that can be detected from the beach with the unaided human eye, subject to condition set forth in subsection (5) of this section, include the following:
- a. ~~Pond lights-Lighting that is purely decorative, serving no other demonstrably functional purpose.~~
 - b. ~~Uplights-Any light fixture which orients light in an upward direction, with the exception of any light solely illuminating the flag of the United States of America in accordance with the United States "Flag Code" as set forth in Title 4 of the United States Code.~~
 - c. ~~Dune walk/crossover lights, with the exception of a single red light, producing light not less than 600nm, to mark the entrance and/or exit of a crossover structure. Such lights will not be required to be shielded.-~~
 - d. ~~Tree-strap downlights.~~
 - e. ~~Decorative lighting, including rope lights and Christmas lights.-~~
- (4) The only lamps/bulbs/diodes or other light sources that may be used in exterior light fixtures that produce light visible with the unaided human eye from the beach include:
- a. Low-pressure sodium (LPS, 18 watts, 35 watts).
 - b. Amber or red LEDs producing light wavelengths not less than 560nm~~(greater than 580 nm)~~.
 - c. ~~Turtle Safe Lighting, Inc. coated, compact fluorescent (CF) lamps (maximum 13 watts)Any lamp/bulb certified by the Florida Fish and Wildlife Conservation Commission's Wildlife Lighting Certification Program or an equivalent program of certification as determined solely by the Authority.~~
 - d. True red neon.
 - e. Other lighting sources that produce light wavelengths of 580 nm or longer wavelength~~not less than 560nm~~.
- (5) Exterior lights used expressly for safety or security purposes shall be limited to the minimum number and configuration required to achieve their functional roles and must comply with conditions set forth in subsections (1) through (19) of this section. Motion detector switches,

Comment [AJ8]: Lines 96-97: Defining the shield as an opaque material is very helpful.

Comment [AJ9]: Lines 103-112: The wording in Section 3 should remain as in the current ordinance. We recommend that all future flagpoles be located on the landward side of buildings and fully shielded from view of the beach. Existing flagpoles on the beach side should not be illuminated at night during the sea turtle nesting season. All dune crossover lights should be shielded.

Comment [AJ10]: Lines 118-121: It should be noted that the FFWCC standards may change over time, necessitating an update of this ordinance. A wavelength of 560 nm or greater should be the standard. Any variation from this standard should be approved through consultation with GADNR.

that keep lights off except when approached and that switch lights on for the minimum duration necessary for security and safety, are desirable.

(6) ~~The use of private balcony lights is prohibited unless fixtures are~~ Private balcony lights may only be low-mounted ~~(equal to or less than two-foot balcony floor, not to exceed the height of the railing around the balcony), low-wattage, and fully-shielded from view from the beach, and produce light that does not directly or indirectly illuminate any surfaces visible from the beach other than the associated balcony.~~ Private balcony lights must ~~comply be in conformance~~ with the conditions set forth in subsections (1) through (10) of this section.

(7) ~~Only low-intensity lighting shall be used in parking areas within line-of-sight of the beach, and shall be:~~

a. ~~Set on a base which raises the source of light no higher than 48 inches off the ground.~~

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.~~

c. ~~Lamps, Bulbs or diodes, producing light visible from the beach with the unaided human eye, used to illuminate in parking areas and roadways fixtures must comply with conditions set forth in subsections (1) through (11) of this section.~~

(8) ~~Parking area and roadways, including any paved or unpaved areas upon which motorized vehicles will park or operate, shall be designed and located to minimize vehicular headlights from directly or indirectly illuminating the beach.~~

(9) ~~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.~~

(10) ~~Swimming pool and pool deck lights shall be turned off when the pool is closed unless required for safety and security, in which case such lights must conform to the condition set forth in subsection (5) of this section. Underwater swimming pool lights are not subject to this section. Swimming pool deck lights must comply with conditions set forth in subsections (1) through (11) of this section; provided, however, underwater swimming pool lights are exempt from such conditions.~~

(11) ~~Tinted glass as defined in the definitions listed in this section shall be installed on all windows and glass doors of single or multistory structures constructed within line-of-sight of the beach.~~

(12) ~~Temporary lighting of construction sites within line of site of the beach during the sea turtle nesting season shall be restricted to the minimal amount necessary and must comply with conditions set forth in subsections (1) through (10) of this section.~~

(13) Prior to beachfront construction or renovation of any beachfront structure or facility, the lighting plan for the subject parcel, including during the construction phase, must be approved by the Authority and the ~~Georgiastate~~ Department of ~~Natural Resources~~, ~~nongame conservation section.~~

(Code 1981, § 15-101; Ord. of 4-29-1991; Ord. of 8-11-2008, § 5-114(IV))

Sec. 10-82. - Standards for permitted beachfront lighting on nonnesting beaches.

Beachfront artificial lighting is permitted on nonnesting beaches during the sea turtle nesting season at nighttime, except such ~~beachfront artificial~~ lighting is prohibited when ~~artificial lighting is visible with the unaided human eye from within line-of-sight of any nesting beach, dune or frontal dune on Jekyll Island, whether directly illuminated or indirectly illuminated or cumulatively illuminated.~~ When artificial lighting is ~~visible with the unaided human eye from within line-of-sight of any nesting beach, dune or frontal dune,~~ all

Comment [AJ11]: Lines 136-141: This condition should remain as originally written. In Florida, balcony lights are not allowed because it is almost impossible to shield them from the beach from the upper floors of hotel buildings. The purpose of the balcony light is to illuminate the balcony deck for footing. This can be accomplished with a low-mounted shielded fixture. It will be virtually impossible to shield the lights from the beach if they are located as high as the railing.

Comment [AJ12]: Lines 151-153: This condition should not be removed. Roadways and parking areas can be a significant source of artificial light on the beach. Beach illumination must be considered when designing roadways and parking areas.

Comment [AJ13]: Lines 154-156: This condition should not be removed. Roadways and parking areas can be a significant source of artificial light on the beach. Ground level barriers are very effective in reducing light on the beach.

Comment [AJ14]: Lines 157-162: Underwater pool lights can be a significant source of indirect light for beachfront properties, particularly light from the pool reflecting off the building. Underwater pool lights should not be exempt from the ordinance.

182 | such artificial lighting must comply with conditions in subsections (1) through (1~~3~~) of the standards set
183 | forth in section 10-81 concerning nesting beaches.

184 | (Code 1981, § 15-101; Ord. of 4-29-1991; Ord. of 8-11-2008, § 5-114(V))

185 | Sec. 10-83. - Prohibition of certain beach activities utilizing artificial lights and lighting affecting sea turtles.
186 | The following activities involving direct illumination of the beach are prohibited on nesting beaches,
187 | dunes, and frontal dunes at nighttime during the sea turtle nesting season for protection of nesting female
188 | sea turtles, nests, and hatchlings:

- 189 | (1) The operation of all motorized vehicles or motorized machines, except for those vehicles that
190 | are necessary for authorized public safety, governmental emergency and law enforcement,
191 | vehicles or those permitted on the beach for research or sea turtle conservation and/or
192 | protected-wildlife related activities. Any such vehicles operating on the beach on a routine, non-
193 | emergency, basis must be equipped with forward facing lights, sufficiently bright for safe
194 | operation, producing light wavelengths not less than 600~~560~~nm.
- 195 | (2) ~~The use of campfires or bonfires.~~ Any source of open flame except hand held lighters.
- 196 | (3) The use of lanterns, flashlights, or any other portable light source unless they produce light of
197 | 580 nm or longer wavelength (true red), except those producing light wavelengths not less than
198 | 600~~560~~nm.
- 199 | (4) The use of fireworks unless approved by the ~~a~~Authority and properly permitted under state and
200 | local law.

201 | (Code 1981, § 15-101; Ord. of 4-29-1991; Ord. of 8-11-2008, § 5-114(VI))

202 | Sec. 10-84. - Variances.

- 203 | (a) Requests for variances to this article must be presented in writing to the ~~a~~Authority. Such requests
204 | must state the rationale and must show how failure to receive a variance will cause an undue
205 | hardship on the requestor.
- 206 | (b) The authority will confer with the ~~Georgia~~state Department of ~~N~~atural ~~R~~esources regarding any
207 | variance requested, and shall respond in writing to each request subsequent to said consultation
208 | within ten days, unless the ~~D~~epartment or the Authority requests additional time for study, in which
209 | case the requestor shall be notified.

210 | (Code 1981, § 15-101; Ord. of 4-29-1991; Ord. of 8-11-2008, § 5-114(VII))

211 | Sec. 10-85. – Length of Nesting Season. Authority discretion to lift ordinance early
212 | Nesting season shall begin on May 1st and end on October 31st of each year; provided, however,
213 | the Authority, at its sole discretion, may declare the end of nesting season prior to October 31st of each
214 | year in the event the Authority determines that no known sea turtle nests remain on Jekyll Island.

219 | Sec. 10-8~~6~~5. - Noncompliance and enforcement.

- 220 | (a) The ~~A~~Authority shall notify, in writing, the leaseholder, or its designated agent, of any premises that
221 | are in noncompliance with this article, and that the noncompliance must be corrected within ten
222 | calendar days.
- 223 | (b) Such notice of noncompliance shall be sent by certified mail or statutory mail, addressed to said
224 | leaseholder, at ~~his~~its last known address, or by posting on the premises.
- 225 | (c) In addition to any rights or remedies available to the Authority under the related lease agreement,
226 | failure by the leaseholder to correct any item of noncompliance with this article within 10

Comment [AJ15]: Lines 215-217: See comments above regarding Lines 31-32. GADNR should be responsible for determining the end of nesting season based on the results of beach surveys.

227 ~~regular calendar business days of receipt of notice of noncompliance shall subject the leaseholder to~~
228 ~~a fine not to exceed \$500.00 per violation. A separate offense shall be deemed to have been~~
229 ~~committed each day during or upon which a violation occurs or is permitted to continue beyond the~~
230 ~~ten calendar days from receipt of notice of noncompliance, be construed to be an item of default of~~
231 ~~the lease for these premises and shall be resolved as set forth in section 1-8 and by law, as~~
232 ~~applicable.~~

233 (Code 1981, § 15-101; Ord. of 4-29-1991; Ord. of 8-11-2008, § 5-114(VIII))

DRAFT