GROUP 3, ITEM B.3 SEA TURTLE CONSERVATION

AMENDMENT SUMMARY

- Issue: Sea turtle research and lighting technologies have advanced significantly since 1992 when the county's sea turtle lighting regulations were last updated. Developers, contractors, and property owners get confused when the solutions given in the code do not match industry standards or what is commercially available.
- Solution: Amend the code to incorporate up-to-date sea turtle research and lighting technology and applicable portions of the State of Florida Model Lighting Ordinance for Marine Turtle Protection, Rule 62B-55.004, F.A.C.
- Outcome: There are clear lighting standards for new construction and methods that can be used to fix existing non-compliant lights. The code reflects modern practices and State recommendations.

Chapter 14 - ENVIRONMENT AND NATURAL RESOURCES

ARTICLE II. - WILDLIFE AND HABITAT PROTECTION

DIVISION 2. - SEA TURTLE CONSERVATION

Sec. 14-71. Purpose and applicability.

- (a) The purpose and intent of this division is to protect endangered and threatened sea turtles along the Gulf of Mexico beaches in the unincorporated areas of the County. This division protects nesting sea turtles and sea turtle hatchlings from the adverse effects of artificial lighting, provides overall improvement in nesting habitat degraded by light, and increases successful nesting activity and production of hatchlings on the beaches, as defined in this division. nesting and hatchling sea turtles on the beaches in unincorporated Lee County by ensuring that their nesting habitat is not degraded by artificial light. The objective of the division is for the appropriate design and implementation of coastal lighting systems to ensure that light pollution does not interfere with sea turtle nesting and hatching events while at the same time protecting public safety.
- (b) The provisions of this division apply during the nesting season. If this division conflicts with any other requirement of the Lee County Land Development Code, then this division will control during sea turtle nesting season.

Sec. 14-72. Definitions.

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

Administrator means the County manager, or his designee, who is responsible for administering the provisions of this division.

Artificial light means the light emanating from any human-made device.

Artificial lighting or illumination means light emanating from a manmade point source. See Point source of light.

Beach has the same meaning given it in Section 14-170.

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.

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 reconstruction or remodeling of existing buildings or structures.

DEP means State Department of Environmental Protection or successor agency.

Decorative lighting means lighting used for aesthetic reasons, primarily landscaping including but not limited to landscape lights, uplights, spotlights, strobe lights, string lights, etc.

Development has the same meaning stated in Section 34-2.

Directly illuminated means illuminated by one or more point sources of light directly visible to an observer on the beach, dune, or other sea turtle nesting habitat.

<u>Directly visible means when glowing elements, lamps, globes, or reflectors of an artificial light source can be</u> seen by an observer standing anywhere on the beach, dune, or other sea turtle nesting habitat.

Dune has the same meaning given it in Section 14-170.

Existing development means completed development having received official approval in the form of a Certificate of Compliance, final building permit inspection, or other final governmental approval as of January 31, 1998.

FWC means the Florida Fish and Wildlife Conservation Commission or its successor.

Full cutoff means a lighting fixture constructed in such a manner that no light emitted by the fixture, either directly from the lamp or a diffusing element or indirectly by reflection or refraction from any part of the luminaire, is projected at or above 90° as determined by photometric test or certified by the fixture manufacturer.

Fully shielded means a lighting fixture constructed in such a manner that the glowing elements, lamps, globes, or reflectors of the fixture are completely covered by an opaque material to prevent them from being directly visible from the beach, dune, or other sea turtle nesting habitat. Any structural part of the light fixture providing this shielding must be permanently affixed.

Ground-level barrier means any vegetation, <u>structure</u>, <u>or</u> natural feature or artificial structure rising from the ground intended to prevent beachfront lighting from <u>shining being</u> directly or indirectly <u>onto visible from</u> the beach, dune, or other sea turtle nesting habitat.

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

Indirectly illuminated means illuminated by one or more point sources of light not directly visible to an observer on the beach, dune, or other sea turtle nesting habitat.

Indirectly visible means light reflected from glowing elements, lamps, globes, or reflectors of an artificial light source that can be seen by an observer standing anywhere on the beach, dune, or other sea turtle nesting habitat without the light source being directly visible.

Long wavelength means a lamp or light source emitting light wavelengths of 560 nanometers or greater and absent wavelengths below 560 nanometers.

Low-profile lighting means a light fixture which places the low wattage source of light no higher than 48 inches above grade and is designed so that a point source of light does not directly or indirectly illuminate sea turtle nesting habitat. is not directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat.

Mechanical beach cleaning has the same meaning given it in Section 14-170.

Nest means an area where sea turtle eggs have been naturally deposited or subsequently relocated by an FWC-authorized marine turtle permit holder.

Nesting season means from 9:00 p.m. until 7:00 a.m. during the period of May 1 through October 31 of each year.

New development means construction of new buildings or structures as well as renovation or remodeling of existing development, and includes the alteration of exterior lighting, including lighted signs, occurring after January 31, 1998.

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

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

Sea turtle nesting habitat means the beach, any adjacent dunes or areas landward of the beach used by sea turtles to deposit sea turtle eggs. all sandy beach and dunes immediately adjacent to the sandy beach and accessible to nesting female turtles.

<u>Temporary lighting means any non-permanent light source that may be hand-held or portable including but</u> not limited to tiki torches, lanterns, flashlights (including cell phone flashlights), candles, flash photography, firepits, bonfires, etc.

Tinted glass means any glass treated to achieve an industry approved, inside to outside light transmittance value of modified via tinting, film or other material to reduce the inside to outside light transmittance value to 45 percent or less.

Sec. 14-73. Violations, enforcement and penalty.

- (a) Violations.
 - (1) Failing in any respect to comply with the provisions of this division.
 - (2) A rebuttable presumption that there is a violation of this division exists when:
 - a. A shadow is created or cast by artificial lighting directly or indirectly illuminating an opaque object in sea turtle nesting habitat during the nesting season; or
 - b. The disorientation or mortality of a nesting sea turtle or sea turtle hatchling is caused by artificial lighting directly or indirectly illuminating that is directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat during the nesting season.
- (b) Enforcement and penalty. Violations of this division will be prosecuted in accordance with Chapter 2, Article VII. The County may take action against the property owner, occupant or person otherwise responsible for causing the violation. In addition to Code enforcement action, the County may pursue other legal means of obtaining compliance, including civil and criminal remedies, that are available by law.

Sec. 14-74. Exemptions. Reserved.

Administrative exemptions. The administrator may authorize, in writing, any activity or use of lighting otherwise prohibited by this division for a specified location and period of time. The authorization must be for the minimum duration and amount of lighting from a point source of light.

Sec. 14-75. Lighting for existing development.

Existing development must ensure that sea turtle nesting habitat is not directly or indirectly illuminated by artificial lighting originating from the existing development artificial lighting originating from the existing development is not directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat during the nesting season. Existing development must incorporate and follow the measures outlined in Section 14-79. to reduce or eliminate interior light emanating from doors and windows visible from the beach, a dune, or other sea turtle nesting habitat.

Sec. 14-76. Lighting for new development.

New development must comply with the following requirements:

- (a) Artificial lighting must conform to the general requirements of Section 14-75;
- (b) A lighting plan must be submitted to the County for review prior to the earlier of building permit or development order issuance for all new development on the barrier islands identified in Appendix B, as follows:
 - (1) Seaward of the coastal construction control line, as defined in Section 6-333 (CCCL), a lighting plan is required for all new development.
 - (2) Landward of the CCCL, a lighting plan is required for all commercial and industrial development, and for all multi-story developments in multifamily zoning districts.
 - (3) The location, number, wattage, elevation, orientation, fixture cut sheets, and types of all proposed exterior artificial light sources, including landscape lighting, must be included on the lighting plan. A County approved lighting plan is required before a building permit will be issued and final inspections for a Certificate of Occupancy or Certificate of Compliance will be performed by the County.
 - (4) Tinted glass, or any window film applied to window glass that meets the definition for tinted glass in Section 14-72, must be installed on all windows and glass doors visible from the beach. The alternative selected to comply with this subsection must be identified on the building permit plans.
 - (5) Exterior light fixtures visible from the beach must meet all of the following criteria to be considered appropriately designed:
 - a. Completely shielded downlight-only fixtures or recessed fixtures having 25-watt yellow bug type bulbs and nonreflective interior surfaces are used. Other fixtures that have appropriate shields, louvers, or cutoff features may also be used, if they comply with Section 14-75. Mercury vapor and metal halide lighting is prohibited.
 - b. All fixtures must be mounted as low as possible through the use of low-mounted wall fixtures, low bollards, and ground level fixtures.
 - c. All exterior lighting must be installed so that the cone of light will fall substantially within the perimeter of the property. Through the use of shielding and limitations on intensity, artificial light traveling outward and upward producing a sky glow must be reduced to the greatest extent possible without unduly interfering with the purpose of the exterior lighting.
 - d. Lighting on ceiling fans placed on balconies or porches visible from the beach is prohibited.
 - Artificial lighting, including, but not limited to, uplighting, is not permitted seaward of the 1978 CCCL.

f. A colored or partially opaque lens must be installed over pool and spa lights.

- (6) Parking lot lighting must use:
 - a. Poles no higher than 12 feet in height;
 - b. Shoebox-style fixtures containing high-pressure sodium or low-pressure sodium bulbs 150 watts or less; and
 - c. Opaque shields with a nonreflective black finish on the inside that completely surrounds each fixture and extends below each fixture at least 12 inches.
- (7) Low profile artificial lighting is encouraged, such as step lighting or bollards with louvers and shields that are no taller than 48 inches with bulbs of 35 watts or less. Opaque shields must surround 180 degrees of each fixture to keep direct light off the beach.
- (c) Interior lighting. All glass windows, walls, railings, and doors on the seaward and shore-perpendicular sides of any new construction must use tinted glass, or tinted film applied to glass, with an inside to outside light transmittance value of 45 percent or less.
 - (1) The method selected to comply with this subsection must be identified on the building permit plans.
 - (2) Prior to the issuance of a certificate of occupancy or certificate of compliance, manufacturer specification stickers will remain affixed to all glass windows, walls, railings, and doors on the seaward and shore-perpendicular sides of any new construction.
 - (3) The measures outlined in Sec. 14-79(b) to reduce the impacts of interior light should be used in addition to turtle glass.
- (d) Exterior lighting. Exterior light fixtures must be long wavelength, downward directed, full cutoff, fully shielded and mounted as close to the ground or finished floor surface as possible. All lighting must not produce light that is directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat.
 - (1) Lighting at egress points must be limited to the minimum number of fixtures necessary.
 - (2) Lighting of paths, walks and routes of building access must use low level fixtures such as step, paver, path, recessed wall or bollard lights. Bollard lights are not to exceed 42 inches in height and other low level fixtures must be mounted as close to the ground or finished floor surface as possible.
 - (3) Decorative exterior lighting may only be installed landward of buildings or other opaque structures.
 - (4) *Pool and spa lighting*. Lighting of pool facilities, swimming pools, splash pads, spas, ponds, and fountains must be long wavelength.
 - a. Underwater lighting must:
 - 1. Be downward or horizontally directed only,
 - 2. Emit only long wavelength light during the nesting season.
 - (5) *Parking area lighting*. All lighting of parking areas must be long wavelength, downward directed, full cutoff, and fully shielded.
 - a. Parking area lighting fixtures may consist of only the following:
 - 1. Downward-directed fixtures, equipped with interior dark-colored, nonreflective baffles or louvers, mounted either with a wall mount, on walls or piles, facing away from the beach.

- 2. Bollard-type fixtures, which do not extend more than 42 inches above the adjacent floor or deck, measured from the bottom of fixture, equipped with downward-directed louvers that completely hide the light source, and externally shielded on the side facing the beach.
- 3. Pole-mounted lights, located only on the landward sides of buildings, mounted no higher than 12 feet above grade, and downward-directed.
- b. Parking area lighting must be shielded from the beach via ground-level barriers. The shielding material must be provided parallel to the nesting beach for a distance no less than the length of the parking lot.
 - 1.If shielded by vegetation, a minimum double staggered hedge row must be
provided. Shrubs must be a minimum height of 36" tall at the time of
installation and must be measured from the parking lot grade of the project
site.
 - 2. If shielded by structures or natural features, the vertical height must be no less than 36" above the finished grade of the parking lot.
 - 3. These shielding methods must prevent artificial light sources, including but not limited to vehicular headlights, from producing light that is directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat.
 - 4. Detailed specifications for the method selected must be included in the permit.
- (8)(7) Signs. Illuminated signs must conform to the requirements of this section. Reverse lighting signs are recommended, where the background is opaque, and the letters/logo are illuminated from within the sign. If exterior lighting is used to illuminate the sign, the lights must be downlights with shields and louvers to pinpoint the light. The use of neon, decorative LED strips, and other architectural lighting is not permitted.
- (c)(8) Prior to the issuance of a Certificate of Occupancy (CO), the exterior lighting of new development must be inspected after dark by the County, with all exterior lighting turned on, to determine compliance with an approved lighting plan and this division.
- (e) Emergency lighting. Emergency lights are not subject to the above standards if on a separate circuit and activated only during power outages or other situations in which emergency lighting is necessary for public safety.
 - (1) Self illuminated exit signs that are continuously on and are visible from the beach, dune, or other sea turtle nesting habitat must have red lettering.

Sec. 14-77. Publicly owned lighting.

Streetlights and lighting at parks and other publicly owned beach access areas are subject to the following requirements:

- (a) The beach must not be directly or indirectly illuminated by nNewly installed or replaced point sources of light must not be directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat.
- (b) Artificial lighting at parks or other public beach access points must conform to the provisions of Section 14-75 and 14-76.

Sec. 14-78. Additional regulations affecting sea turtle nesting habitat.

(a) *Fires.* Fires are prohibited on the beach-during the sea turtle nesting season.

- (1) Fire pits, fire bowls, tiki torches, bonfires, lanterns and other decorative fires may not be directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat during the sea turtle nesting season.
- (b) Temporary construction lighting. Within sea turtle nesting season, temporary work zone lighting must be:
 - (1) Inclusive of all the standards of this Section, including using fixtures that are long wavelength, downward directed, full cutoff, and fully shielded so light is not directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat, and
 - (2) Mounted less than eight feet above the adjacent floor or deck, measured from the bottom of fixture.
- (c) Other temporary lighting. Handheld and other portable temporary lighting must not be directed toward or used in a manner that disturbs sea turtles or other coastal wildlife.
- (b)(d) Driving on the beach. Driving on sea turtle nesting habitat, specifically including the beach, is prohibited during the nesting season, except as follows:
 - (1) Research or patrol vehicles. Only authorized permittees of the FWC, DEP officials, and law or Code enforcement officers conducting bona fide research or investigative patrols, may operate a motor vehicle on the beach or in sea turtle nesting habitat during the nesting season. No lights may be used on the vehicles during the nesting season unless they are covered by appropriate, red-colored filters. The vehicles must travel below the previous night's mean high tide line to avoid dunes, dune vegetation, sea turtle nests and bird nesting areas.
 - (2) *Mechanical beach raking.* The mechanical raking of the beach or wrack line is prohibited, except in accordance with Section 14-174. During the nesting season, mechanical beach raking:
 - a. Must not occur before 9:00 a.m. or before completion of daily monitoring for turtle nesting activity by a FWC-authorized marine turtle permit holder, whichever occurs first;
 - b. Must not disturb any sea turtle or sea turtle nest; and
 - c. Must avoid all staked sea turtle nests by a minimum of ten feet.
 - (3) *Beach furniture and equipment transport.* During the nesting season, the transport of beach furniture and equipment: <u>can only be done in accordance with Section 14-173.</u>
 - a. May not be set out in the morning until after a sea turtle monitor has inspected the beach in the area of the authorized activity to ensure any new sea turtle nests are identified and marked.
 - b. May not travel within ten feet of a sea turtle nest or dune vegetation.
 - (4) See Section 14-175 for other restrictions on vehicular traffic on the beach that apply before and after the nesting season.
- (c)(e) Parking. Vehicle headlights in parking lots or areas on or adjacent to the beach must be screened utilizing ground-level barriers to eliminate so that artificial lighting directly or indirectly illuminating sea turtle nesting habitat is not directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat.
- (f) Special events. Special events proposed on or near the beach or dune, or where lighting from the special events will be directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat, will require a permit from DEP and the County pursuant to LDC Section 14-176.

Sec. 14-79. Guidelines for mitigation and abatement of prohibited artificial lighting.

- (a) Appropriate techniques to achieve lighting compliance include, but are not limited to:
 - (1) Fitting lights with hoods or shields.
 - (2) Utilizing recessed or down fixtures with low wattage bulbs.

- (3) Screening light with vegetation or other ground-level barriers.
- (4) Directing light away from sea turtle nesting habitat.
- (5) Utilizing low-profile lighting.
- (6) Turning off artificial light during the nesting season.
- (7) Motion detectors set on the minimum duration.
- (8) Lowering the light intensity of the lamps to 25-watt yellow bug lights.
- (9) Spraying reflective surfaces within fixtures or globes on fixtures with a flat black grill or oven paint.

Although plastic sleeves for fluorescent bulbs may help to reduce the amount of artificial light to an acceptable level if the bulbs are of sufficiently low wattage, additional shielding is still needed as sea turtles are more sensitive to the wavelengths of fluorescent light.

- (b) Opaque shields for lights covering an arc of at least 180 degrees and extending an appropriate distance below the bottom edge of the fixture on its seaward side may be installed so that the light source or any reflective surface of the light fixture is not visible from sea turtle nesting habitat.
- (a) Reduce or eliminate the negative effects of existing exterior artificial lighting through the following measures:
 - (1) Reposition, modify or remove existing lighting fixtures so that the point source of light or any reflective surface of the light fixture is no longer directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat.
 - (2) Replace fixtures having an exposed light source with fully shielded fixtures.
 - (3) Replace any light source, light bulb or lamp that is not long wavelength (e.g. incandescent, fluorescent, or high intensity lighting) with the lowest wattage long wavelength (e.g. amber, orange, or red LED under 560 nm) light source or lamp available for the specific application.
 - (4) Replace non-directional fixtures with directional fixtures that point down and away from the beach.
 - (5) Provide non-reflective shields for fixtures visible from the beach, dune, or other sea turtle nesting habitat and not practical to immediately be replaced. Beachside shields are to cover 270 degrees and extend 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, dune, or other sea turtle nesting habitat.
 - (6) 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, dune, or other sea turtle nesting habitat.
 - (7) Plant or improve vegetation buffers between the light source and the beach to screen light from the beach.
 - (8) Construct a ground level barrier landward of the beach and frontal dune to shield light sources from the beach. Ground-level barriers are to be considered a last resort when no other remediation of the light source is feasible. Ground level barriers may be subject to state coastal construction control line regulations under section 161.053, Florida Statutes, and must not interfere with sea turtle nesting or hatchling emergence, or cause short- or long- term damage to the beach and dune system.
 - (c)(9) Floodlights, Landscape lights, up-lights, spotlights, and <u>other</u> decorative lighting (e.g. strobe lights, string lights, etc.) directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat should <u>must</u> not be used during the nesting season. The ideal alternatives within direct line-of-sight of the beach are completely shielded downlight-only fixtures or recessed fixtures, with any visible interior surfaces or baffles covered with a matt black nonreflective finish.

- (10) Permanently remove or permanently disable any fixture which cannot be brought into compliance with the provisions of these standards.
- (d) Appropriate techniques to eliminate interior lighting directly or indirectly illuminating the beach, include, but are not limited to, applying window tint film to windows, using tinted glass, moving light fixtures away from windows, closing blinds or curtains, and turning off unnecessary lights.
- (b) Take the following measures to minimize interior light emanating from doors and windows within line-ofsight of the beach:
 - (1) Apply window tint or film that meets the light transmittance standards for tinted glass.
 - (2) Rearrange lamps and other moveable fixtures away from windows.
 - (3) Use opaque shades or room darkening window treatments (e.g., blinds, curtains, screens) to shield interior lights from the beach.
 - (4) Turn off unnecessary lights.

Secs. 14-80—14-110. Reserved.

APPENDIX B

AMENDMENT SUMMARY

Issue:Appendix B includes beaches that are no longer in unincorporated Lee County.Solution:Remove those beaches that are no longer in unincorporated Lee County jurisdiction.Outcome:Update locations where code is applicable.

Appendix B GULF OF MEXICO BEACH DESCRIPTION¹

GULF OF MEXICO BEACH DESCRIPTION

GASPARILLA ISLAND.

Those beaches westerly from the Lee County Line on the north to a point being the southernmost point of the island bearing due south provided, however, that said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.

CAYO COSTA ISLAND (LA COSTA)

Those beaches westerly from that point being the northernmost point of the island bearing due north to that point being the southernmost point of the island bearing due south; provided, however, that said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.

THOSE UNNAMED ISLANDS IN THE GULF OF MEXICO OFF THE WESTERN COAST OF CAYO COSTA ISLAND.

All beaches of each island.

¹Editor's note(s)—Printed herein is Appendix B to the Land Development Code. Amendments are indicated by parenthetical history notes following amended provisions. The absence of a history note indicates that the provision remains unchanged from the original. Obvious misspellings and punctuation errors have been corrected without notation. For stylistic purposes, a uniform system of headings, catchlines and expression of numbers in text has been used. Additions made for clarity are indicated by brackets.

NORTH CAPTIVA ISLAND.

Those beaches westerly from that point being the northernmost point of the island bearing due north to that point being the southernmost point of the island bearing due south; provided, however, that said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.

CAPTIVA ISLAND.

Those beaches westerly from that point being the northernmost point of the island bearing due north to that point being the southernmost point of the island bearing due south; provided, however, that said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.

ESTERO ISLAND.

Those beaches westerly from that point being the northernmost point of the island bearing due north to that point being the southernmost point of the island bearing due south; provided, however, that said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.

LOVER'S KEY GROUP OF ISLANDS INCLUDING BLACK ISLAND.

Those beaches westerly from that point beginning at the northernmost point bearing due north of the western most lands of the island group fronting on the Gulf of Mexico to a point being the southernmost point of the island group bearing due south; provided, however, that said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.

BIG HICKORY ISLAND.

Those beaches westerly from that point being the northernmost point of the island bearing due north to that point of the island in Big Hickory Pass being the southernmost point bearing due south; provided, however, that said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.

LITTLE HICKORY ISLAND (BONITA BEACH).

Those beaches westerly from that point being the northernmost point of the island bearing due north to that point being the Lee County Line on the south; provided, however, that the said northernmost and southernmost points are subject to change as a result of natural erosion and accretion occurring to the beaches over time.