

**GROUP 3, ITEM B.4
BEACH AND DUNE MANAGEMENT**

AMENDMENT SUMMARY

- Issue: Some language in this division conflicted with the language used in the Sea Turtle Conservation division. Dune vegetation was installed based on common names, which can reference multiple species.
- Solution: Clean up this division to maintain consistency with the Sea Turtle Conservation division. Reformat the list of native dune vegetation species to include scientific names.
- Outcome: The dune protection measure are clear and easy to understand.

Chapter 14 - ENVIRONMENT AND NATURAL RESOURCES

ARTICLE II. - WILDLIFE AND HABITAT PROTECTION

DIVISION 5. BEACH AND DUNE MANAGEMENT

Sec. 14-170. Definitions.

When used in this division, the following words, terms and phrases have the meanings set forth in this section, except where their context clearly indicates a different meaning:

Beach means the area of sand along the Gulf of Mexico that extends landward from the mean low water line to the place where there is a marked change in material or physiographic form, usually the effective limit of storm waves. Beaches include dunes and dune vegetation.

Beach furniture or equipment means any manmade apparatus or paraphernalia designed or manufactured for use or actually used on the beach or in the adjacent tidal waters. Examples include chairs, tables, cabanas, lounges, hammocks, umbrellas, sailing vessels, personal watercraft, concession storage units, canoes, kayaks, paddle vessels, sailboards, surfboards, fishing gear, sporting equipment, floatables, tents, and bicycles.

Coastal Construction Control Line (CCCL) has the same meaning given it in Section 6-333.

Dune means a mound, bluff, ridge, or emergent zone of loose sediment, usually sand-sized sediment, lying upland of the beach and deposited by any natural or artificial mechanism, which may be bare or covered with vegetation, and is subject to fluctuations in configuration and location (see F.S. § 161.54; F.A.C. 62B-33.002). It encompasses those ecological zones that, when left undisturbed, will support dune vegetation. As to areas restored or renourished pursuant to a permit issued by the County or State, it encompasses the area specified in the permit as a dune or any area specified as suitable for establishment of dune vegetation.

Dune vegetation means pioneer species of native vegetation which, if left undisturbed by manmade forces, will begin to grow on a dune, including species such as: ~~bitter panicum, coastal panic grass, crowfoot grass, salt meadow cordgrass, sandbur, seacoast bluestem, sea oats, seashore dropseed, seashore paspalum, seashore saltgrass, stiffleaf eustachys, beach bean, blanket flower, dune sunflower, fiddle leaf morning glory, partridge pea, railroad vine, sea purslane, beach creeper, nicker bean, coin vine, inkberry, lantana, saw palmetto, seashore elder, baycedar, and seagrape.~~

Dune Vegetation

<u>Common Name</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Scientific Name</u>
<u>Beach bean</u>	<u>Canavalia maritima</u>	<u>Bitter panicum</u>	<u>Panicum amarum</u>

<u>Florida rosemary</u>	<u>Ceratiola ericoides</u>	<u>Coastal panic grass</u>	<u>Panicum amarum var. amarulum</u>
<u>Partridge pea</u>	<u>Chamaecrista fasciculata</u>	<u>Inkberry</u>	<u>Scaevola plumieri</u>
<u>Seagrape</u>	<u>Coccoloba uvifera</u>	<u>Seacoast bluestem</u>	<u>Schizachyrium littorale</u>
<u>Seashore saltgrass</u>	<u>Distichlis spicata</u>	<u>Saw palmetto</u>	<u>Serenoa repens</u>
<u>Beach creeper</u>	<u>Ernodea littoralis</u>	<u>Shoreline sea purslane</u>	<u>Sesuvium portulacastrum</u>
<u>Blanket flower</u>	<u>Gaillardia pulchella</u>	<u>Saltmeadow cordgrass</u>	<u>Sporobolus pumilus</u>
<u>Dune sunflower</u>	<u>Helianthus debilis</u>	<u>Seashore dropseed</u>	<u>Sporobolus virginicus</u>
<u>Railroad vine</u>	<u>Ipomoea pes-caprae</u>	<u>Bay cedar</u>	<u>Suriana maritima</u>
<u>Seashore elder</u>	<u>Iva imbricata</u>	<u>Sea oats</u>	<u>Uniola paniculata</u>
<u>Gulfhairawn muhly</u>	<u>Muhlenbergia filipes</u>		

Mechanical beach raking means the cleaning of the beach seaward of the dune and vegetation line of trash and other debris on or near the surface by use of a rake or other similar porous device that penetrates no more than two inches below existing ambient grade and results in no removal of in situ sand.

Wrack means the natural organic marine material cast on the shore, including seaweed and other vegetative and animal debris, but excluding manmade material.

Sec. 14-171. Purpose and intent.

The purpose of this division is to encourage a steward-like attitude toward one of the County's most valuable assets, the beach. It is the intent of this division to preserve and improve the condition of the beach asset as a place for recreation, solitude, and preservation of beach vegetation and marine wildlife. This division establishes minimum standards to safeguard the beach.

Sec. 14-172. Destruction or diminishment of dune or beach system.

Staff note: The installation of irrigation in the dune systems is already prohibited under 14-172(a)(3) and 14-178(a)(4). Listing it specifically in this section will clarify this for property owners.

- (a) No person may conduct or allow any of the following activities on the beach, upon a dune, or in the water adjacent to the beach, unless otherwise specifically permitted in accordance with Subsection (b) of this section.
- (1) Harass, molest, or disturb wildlife;
 - (2) Plant vegetation other than native dune vegetation;
 - (3) Install irrigation, except for temporary irrigation for restoration planting as required in Section 14-178;
 - ~~(3)~~(4) Destroy or harm a dune or mow or remove native dune vegetation;
 - ~~(4)~~(5) Maintain a dump of, or discard or leave litter, garbage, trash or refuse, vegetative clippings, or debris;
 - ~~(5)~~(6) Deposit and leave human or animal waste;
 - ~~(6)~~(7) Destroy or grossly interfere with the natural wrack line by grooming or nonselective raking except as authorized in Section 14-174;
 - ~~(7)~~(8) Operate any air-powered or any engine-powered nonwatercraft vehicle, machine, or implement, including any battery- or electrically-powered vehicle, machine, or implement, except for a wheelchair or approved conveyance for a person with a disability which is actually being used by the person with a disability or as authorized in Section 14-175;
 - ~~(8)~~(9) Excavate, mine, and remove, or haul sand or soil from the beach or dune except in emergency situations as permitted by DEP;

- ~~(9)~~(10) Detonate any explosive devices, including fireworks;
 - ~~(10)~~(11) Light or maintain any open fire on the beach;
 - ~~(11)~~(12) Temporarily reside, camp, or sleep overnight;
 - ~~(12)~~(13) Deposit/install rocks, concrete, or other shoreline stabilization materials without a permit from DEP and the County;
 - ~~(13)~~(14) Deposit/add sand to the beach and dune system without a permit from DEP. All fill material will be sand that is similar to the existing beach sand in both coloration and grain size and be free of debris, rocks, clay, or other foreign matter;~~or~~
 - (15) Deposit/apply water from adjacent or upland irrigation systems; or
 - ~~(14)~~(16) Conduct any commercial activities not explicitly authorized by this Code or by other County ordinances.
- (b) Permits may be issued by the County for activities prohibited under Subsection (a) of this section, which the Director finds are:
- (1) Necessary for reasonable accommodation of persons with disabilities;
 - (2) Adjunct to a lawfully existing activity;
 - (3) For the conduct of a civic or educational activity; for the conduct of scientific research; or
 - (4) For any purpose otherwise necessary to protect or to promote the public welfare.

To the extent that a permit is issued for any of the above activities, the standards and procedures for issuance will be governed by this Code.

Sec. 14-173. Beach furniture and equipment.

- (a) All beach furniture and equipment must be set landward of the mean high water line and at least ten feet from a sea turtle nest or dune vegetation.
- (b) Trash containers may only be located adjacent to beach access points and may be left in place at all times. Trash containers must be kept secured from wildlife and emptied nightly.
- ~~(a)~~(c) From May 1 through October 31, all beach furniture and equipment must be removed from the beach as follows:
 - (1) All beach furniture and equipment must be removed daily from the beach to behind the 1978 CCCL between the hours of 9:00 p.m. until 8:00 a.m.
 - (2) Beach furniture and equipment that is removed from the beach must be safely stacked in areas no larger than ten feet by ten feet and each stack must be at least 50 feet removed or apart from the next stack.
- ~~(b) Trash containers are not included in the definition of beach furniture and equipment and may be left in place on the beach at all times.~~
- ~~(c) All beach furniture and equipment (such as chairs, umbrellas, cabanas, and rental podiums) must be set landward of the mean high water line and at least ten feet from a sea turtle nest or dune vegetation.~~
- (d) Vendors or property owners using a vehicle to transport furniture and equipment to and from the beach are required to follow these additional restrictions:
 - (1) Equipment may not be set out in the morning ~~before 8:00 a.m. or~~ until after completion of daily monitoring by a FWC-authorized marine turtle permit holder examining the beach in the area of the authorized activity to ensure any new sea turtle nests are identified and marked, ~~whichever occurs first.~~

- (2) Transporting vehicles may not travel within ten feet of a sea turtle nest or dune vegetation.
- (3) The vehicle, trailer, and equipment may not exceed a maximum ground-to-tire pressure of ten PSI (pounds per square inch) using the formula in Section 14-174(a)(3)d-1(4)a. Beach furniture and equipment may be placed on a vehicle or on a wheeled trailer but may not be dragged or pushed by a vehicle. After setup, the vehicle and trailer must be removed from the beach.

Sec. 14-174. Beach raking and wrack line policy.

(a) Under normal circumstances, the raking of the beach or wrack line is prohibited. The only exceptions require an appropriate DEP permit based on a determination that existing health or safety issues require action in accordance with the following:

- (1) A larger than normal wrack line resulting from extraordinary circumstances may be raked if the wrack line is at least ten feet landward of the normal high tide line.
- (2) If health or safety issues are present, such as a large fish kill or a red tide event, the wrack line may be raked up to ten feet landward of the normal high tide line.
- (3) If this occurs during sea turtle season (May 1 through October 31), the raking must be in compliance with the following conditions:
 - a. Mechanical beach raking activities must be confined to daylight hours and may not begin before 9:00 a.m. or completion of daily monitoring for turtle nesting activity by a FWC-authorized marine turtle permit holder, whichever occurs first.
 - b. The permittee is responsible for ensuring that a daily sea turtle nest survey, protection, and monitoring program is conducted throughout the permitted beach raking area. Surveys and associated conservation measures must be completed after sunrise and prior to the commencement of any mechanical beach raking. The sea turtle survey, protection, and monitoring program may be conducted only by individuals possessing appropriate expertise in the protocol being followed and a valid F.A.C. Rule 68-E Permit issued by the FWC. To identify those individuals available to conduct marine turtle nesting surveys within the permitted area, please contact the FWC, Bureau of Protected Species Management.
 - c. All turtle nests will be marked with wooden stakes, flagging tape, and an FWC sea turtle nest sign. No mechanical raking equipment is allowed inside of the staked area. All equipment operators must be briefed on the types of marking utilized and must be able to easily contact the individual responsible for the nest survey to verify any questionable areas.

~~4.~~(4) Mechanical beach raking equipment must meet the following standards:

- ~~1.~~a. The vehicle and equipment may not exceed a maximum ground-to-tire pressure of ten PSI (pounds per square inch) using the following formula:

$$\text{PSI} = \text{vehicle weight in pounds (includes person and equipment)} \div \text{the footprint in square inches.}$$

Example: 404 lbs. (ATV weight), plus 200 (person plus equipment), divided by 198 square inches (ATV with a six-inch by 8.25-inch footprint times four tires) equals 3.1 PSI.
- ~~2.~~b. Raking must be accomplished with a pronged rake that limits penetration into the surface of the beach to a maximum of two inches. Box blades, front- or rear-mounted blades, or other sand sifting/filtering vehicles are not allowed.
- ~~3.~~c. Operators of mechanical beach raking equipment must avoid all native salt-tolerant dune vegetation and staked sea turtle nests by a minimum of ten feet.
- ~~4.~~d. Burial or storage of any debris (biotic or abiotic) collected is prohibited seaward of any frontal dune, vegetation line, or armoring structure. Removal of all accumulated material from the beach

must occur immediately after raking has been performed in an area. Prior to removing the debris, and to the greatest extent possible, beach compatible sand must be separated from the debris and kept on site.

- 5-e. Mechanical beach raking equipment must travel seaward of the mean high water line with the rake disengaged when driving on the beach from one raking area to another, and may not disturb any dune or dune vegetation.
- (b) The use of box blades on the beach or dune is prohibited. In an emergency or storm event the use of a box blade may be allowed with the approval of DEP.

Sec. 14-175. Prohibition of vehicular traffic on the beach.

The operation of any engine-powered vehicle, machine, or implement, including any electrically-powered vehicle, machine, or implement, on the beach, dune, or sea turtle nesting habitat, as defined in Section 14-72, is prohibited except for the following:

- (a) *Research or patrol vehicles.* Only authorized permittees of the FWC, DEP officials, and law or Code enforcement officers, EMS and firefighters, scientific monitoring 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 these vehicles during the nesting season unless they are covered by appropriate, red-colored filters. These vehicles must travel below the previous night's mean high tide line to avoid dunes, dune vegetation, sea turtle nests and bird nesting areas.
- (b) *Mechanical beach raking.* Vehicles operating under permits issued pursuant to Section 14-174.
- (c) *Beach furniture and equipment transport.* Vehicles operating ~~under permits issued~~ pursuant to Section 14-173.
- (d) *Wheelchairs.* A wheelchair, or other conveyance with prior approval from the County, for a person with a disability, which is actually being used by the person with a disability. Disabled access to the beach is encouraged through use of wheelchairs equipped with special beach friendly tires that are available for rent or purchase.
- (e) *Maximum tire pressure.* Any vehicle authorized to drive on the beach may not exceed a ground-to-tire pressure of ten PSI as computed in accordance with Section 14-174(a)(4)a, except for wheelchairs permitted in accordance with Subsection (d) of this section.
- (f) *Sea turtle nesting season.* See Section 14-78 for additional restrictions during the sea turtle nesting season.

State law reference(s)—Vehicular traffic on coastal beaches, F.S. § 161.58.

Sec. 14-176. Special events on the beach.

- (a) Special events on the beach are temporary, short-term activities, which may include the construction of temporary structures; temporary excavation, operation, transportation, or storage of equipment or materials; or nighttime lighting that is visible seaward of the CCCL. Generally, activities within this category include but are not limited to, sporting events (e.g., volleyball, personal watercraft races), festivals, competitions, organized parties (e.g., weddings), promotional activities, concerts, film events, ~~balloon releases,~~ and gatherings under tents.
- (b) Due to the potential for adverse impacts, certain special event activities may not be compatible with sea turtle nesting areas. In some cases, this is due to the type of activity, where permit conditions alone cannot provide adequate protection. In other cases, the density of sea turtle nesting prevents certain activities from being conducted safely.

- (c) Special events proposed on or near the beach or dune, or where lighting from the special events will ~~directly or indirectly illuminate~~ be directly or indirectly visible from the beach, dune, or other sea turtle nesting habitat, will require a permit from DEP and the County. The permit may contain special conditions for the protection of the beach, dune, and sea turtles.
 - (1) Site-specific conditions related to identifying, designating, and protecting existing vegetation and sea turtle nests in accordance with this Code may be imposed. These conditions are in addition to the following standard permit conditions for all special events on the beach:
 - a. During the sea turtle nesting season (May 1 through October 31), special event activities including construction must be confined to daylight hours and may not begin before ~~8:00 a.m.~~ However, the daily monitoring for turtle nesting activity by a FWC-authorized marine turtle permit holder ~~must be~~ is completed before the special event activity may commence.
 - b. All turtle nests will be marked with wooden stakes, flagging tape, and an FWC sea turtle nest sign. No activities (including the placement of equipment or the storage of materials) are allowed within 30 feet of a marked nest and ten feet from dune vegetation. The permittee must ensure that all personnel are briefed on the types of marking utilized and be able to easily contact the individual responsible for the nest survey to verify any questionable areas.
 - (2) A violation of these conditions will automatically invalidate the permit. Periodic compliance inspections will be conducted to ensure compliance with the permit conditions and this Code.
 - (3) Release of balloons and sky lanterns is prohibited, except as permitted by F.S. § ~~372.995~~379.233.

Sec. 14-177. Enforcement.

- (a) The Director is authorized to pursue any one, or a combination of the enforcement mechanisms provided in this Code (for example, Section 1-5, or Chapter 2, Article V) for any violation of this article.
- (b) The successful replacement of the illegally removed dune vegetation and restoration of the subject area may be considered when determining whether the violator has eliminated or significantly decreased the ability of the dune system to recover or perform those functions for which it is being protected.

Sec. 14-178. Restoration standards for dune vegetation alteration violations.

- (a) Upon written agreement between the Director and the violator in accordance with Section 2-2, or if they cannot agree, then, upon action by the court or Hearing Examiner, a restoration plan may be ordered using the standards in this section. The restoration plan must require replacement of the same species, or any species approved under the written agreement or order.
- (b) The restoration plan must include the following minimum standards:
 - (1) Restoration plantings for vegetation other than trees must be nursery grown, containerized, and planted at a minimum density of no less than 1½ feet on center. The number of replacement plantings will be computed by the square footage of the area destroyed. The replacement stock must be a minimum of a two-inch size container. Higher density plantings may be required at the discretion of the Director based upon density and size of the vegetation on the site prior to the violation. If it is not reasonably possible to determine the density or species of the vegetation in the area where the violation occurred, then the density and the species will be deemed to be the same as those located on similar properties. The Director has the discretion to allow a deviation from the above-specified ratio. When a deviation is requested, the total size must equal or exceed that specified in the above standards.
 - (2) Dune vegetation alteration violations caused by raking, excavation, or clearing must be restored to natural ground elevation and soil conditions prior to commencement of replanting.

- (3) Replacement plantings must have a guaranteed minimum of 80 percent survivability for a period of no less than five years; however, success will be evaluated on an annual basis.
- (4) Only temporary aboveground irrigation may be installed and must be removed no later than one year from the date of planting. Temporary irrigation must be turned off within 50 feet of a sea turtle nest.
- (5) The plan must specify that, within 90 days of restoration completion, a written report, prepared by or on behalf of the violator, must be submitted to the County. This report must include the date of completion, copies of the nursery receipts, a drawing showing the locations of the plantings, and color photographs of the planting areas from fixed reference points.
- (6) The restoration plan must include a maintenance provision of no less than five years for the control of invasive exotic vegetation, with annual monitoring and maintenance of the restored area to include the following:
 - a. Removal of all exotic and nuisance vegetation in the area without disturbing the existing dune vegetation.
 - b. Replacement of dead vegetation in order to ensure at least 90 percent coverage at the end of the five-year period. Replacement vegetation must be nursery grown and of the same species and at least the same size as those originally planted.
 - c. Submittal of an annual monitoring report to the Director for five years following the completion of the restoration describing the conditions of the restored site. The monitoring report must include mortality estimates, causes for mortality (if known), growth, invasive exotic vegetation control measures taken, and any other factors that indicate the functional health of the restored area.
 - d. The monitoring report must be submitted on or before each anniversary date of the effective date of the restoration plan. Failure to submit the report in a timely manner constitutes a violation of this Code.
 - e. To verify the success of the mitigation efforts and the accuracy of the monitoring reports, the Director may periodically inspect the restoration.

Secs. 14-179—14-200. Reserved.